The experience of eco-emotions in young people from Fridays For Future the Netherlands

~ Master Thesis ~

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Abstract

Nowadays, almost every child in the world is exposed to some kind of risk as a consequence of climate change. It is therefore not surprising that more and more young people start to feel anxious about their future. Inspired by Greta Thunberg, youth climate movements like Fridays For Future The Netherlands (FFFN) are on the rise. FFFN tries to emphasize the urgence to limit global warming to a maximum of 1.5 degrees and the need to reach climate justice. However, previous studies indicated that the voices of these young climate activists are not heard, which can increase their eco-anxiety. Although eco-anxiety seems to be the most researched and most experienced emotion in the face of climate change, it is not the only emotion that is experienced in climate movements. Research shows that fear, anger, hope and guilt are all essential emotions in climate movements. There is still a knowledge gap on how these emotions are connected, how young people use emotions like hope to make their negative emotions practically useful and how these emotions are experienced by young people in social climate movements.

The objective of this study was therefore to examine how young people's experiences of eco-emotions manifest in and shape social climate movements for climate action. Data was collected using qualitative research methods: social media observation, participant observation and interviews in FFFN. It was found that the members of FFFN indeed view their emotions as important incentives for activism. That the members perceive climate change as a threat in combination with their hope that positive change is still possible makes that they became climate activists. The more negative individual emotions (like fear, powerlessness and guilt) are seen as a motivation to become active, while the more positive collective emotions (like hope, pride and togetherness) stimulate people to stay active and involved in the movement. These emotions manifest in and shape FFFN in several ways: through communication, emotional convergence and collective action. More research on the difference in the experience of emotions between various movements and the role of emotions in symbolic actions and young people burning out is recommended.

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1. Introduction and problem statement

In todays society it is almost impossible to read through the newspapers without headlines mentioning something related to climate change or environmental crises. “Thousands of residents of California on the run for forest fires”, as written on the Dutch online news page ‘Nu.nl’ (Nu.nl, 2021) or “Flood death toll in Turkey rises above 50” (RTL Nieuws, 2021) and “Canadian village that broke heat record has been engulfed by flames” (le Clercq, 2021) are just some examples of these climate changes related news articles. According to the recently published UNICEF report “The climate crisis is a child rights crisis” (UNICEF, 2021), almost every child in the world is exposed to some kind of risk as a result of climate change (UNICEF, 2021). According to the same rapport, for one billion children across the globe these risks can be considered extremely severe (UNICEF, 2021). The heat events, floods, droughts and fires as mentioned by the news articles are just some of the examples of how climate changes affects the lives of almost everyone on this planet.

It is therefore not surprising that as a result of climate change, more and more people start to feel anxious about their future and the future of this planet (Pihkala 2018), and climate protests, activism and movements are on the rise (Martiskainen et al., 2020). As pointed out by Ojala (2012), “climate change can be seen as an existential issue closely connected with uncertainty about the future survival of our planet and therefore as evoking feelings of existential anxiety and hopelessness” (p.626). Although also adults, mostly children and young adults are experiencing different forms of eco-anxiety (Clayton, 2020; Clayton and Karazsia, 2020; Hickman, 2020). Eco-anxiety is, among others, associated with feelings of fear, distress, hopelessness and uncertainty regarding the future as a result of climate change and environmental crisis (Hickman, 2020; Pihkala, 2020a; 2020b). Hickman (2020) did research in young people’s eco-anxiety and indicates that during her research the children and young people she spoke to told her that they feel misunderstood, betrayed and abandoned by adults.

Although eco-anxiety seems to be the most researched and most experienced emotion in the face of climate change (Pihkala, 2020; Hickman, 2020), it is not the only emotion that is experienced as a consequence of climate change (Hickman, 20202). There are other emotions with strong connections to eco-anxiety and the environmental/climate crisis as well. Hickman describes that whilst anxiety is usually “the initial emotion felt on becoming aware of the climate crisis”, it often rapidly develops into other emotions such as depression, anger, guilt or grief (Hickman, 2020, p.415-416).

The importance of these emotions, especially for climate activism, is becoming more acknowledged (Fritsche and Masson, 2021). According to Kelly (2017), each climate related emotion can be a motivation that drives people to act against climate change. It might be eco-anxiety or eco-grief that motivates people, but it can also be eco-anger or hope. Fear, hope, anger and guilt are seen as essential emotions in climate movements (Kleres and Wettergren, 2017). All of these emotions can stimulate people to take action (Jasper, 2011; Kelly, 2017; Kleres and Wettergren, 2017). Since climate change is a collective problem and needs to be solved by collective action (Fritsche and Masson, 2021; Van Zomeren et al., 2019), collective emotions are also important to drive collective climate action (Fritsche and Masson, 2021). They are thus also essential for social (climate) movements, since they drive action and influence the movement’s success in reaching its goals (Jasper, 2011).

This is relevant, since the last couple of years climate protests, climate strikes and climate movements make an appearance more often as a result of the climate school strikes that Greta Thunberg started in 2018 (Martiskainen et al., 2020). According to Martiskainen et al. (2020), “in September 2019, an extraordinary number of people and organisations took part in a Global Climate Strike. An estimated 7.6 million people participated in 185 countries, involving 6135 distinct events, 73 trade unions, 3024 businesses, and 820 organisations” (p.1). Fridays For Future (from now on FFF) is one of the climate

movements that originated in this period, inspired by Greta Thunberg (Fridays For Future, 2021; Martiskainen et al., 2020). FFF is a "global climate strike movement" founded and run by children and students and active in many cities (Fridays For Future, 2021). FFF is represented on all continents and in 7500 cities, including multiple cities in the Netherlands (Fridays For Future, 2021; Fridays For Future Nederland, n.d.). Through among others demonstrations, climate strikes and campaigns, Fridays For Future the Netherlands (and FFF in general) tries to emphasize the urgence to do something against the environmental crises and the need to do this together.

For this research I have done a case study on young people within Fridays For Future the Netherlands, so the FFF groups that are active in the Netherlands, by participant observation, social media observation and interviews. With this study I aim to answer the following research question: *How do experiences of eco-emotions from young people of Fridays For Future the Netherlands manifest in and shape social climate movements for climate action?*

1.1. Problem statement and objective

Although climate strike youth movements like FFF are on the rise, the voices of young people are neglected and often left out of discussions and decision making. This while this younger generation consists of tomorrow's leaders and will have to face the consequences of climate change now and in the future (Ojala, 2012). Hickman (2020) mentions that this silencing of young people is worrying. A common denial of environmental crisis or "socially constructed silence" where the majority ignores the voices of the youth can increase their eco-anxiety (Nairn, 2019; Norgaard, 2011 as cited in Pihkala, 2020a, p.5).

Most research so far has been done on eco-anxiety and its mental health risks for individuals (Bourque and Willox, 2014; Usher et al., 2019, Pihkala, 2020a; Warsini et al., 2014). There is still a lack of research on how diverse emotions, associated with eco-anxiety, are connected (Pihkala, 2020a; Pihkala, 2020b) and how young people use emotions like hope to make their negative emotions practically useful (Bishop & Willis, 2014; Ojala, 2012), for example through climate activism. Furthermore, there is a knowledge gap regarding how young people experience emotions like eco-anxiety (Coffrey et al., 2021). Since climate movements and collective emotions are becoming more important and most research has been done on individual mental health impacts, my focus lies on the importance of (collective) emotions in social movements.

The objective of this study is thus to gain insight into the emotions experienced by young activists in climate movements, by examining how young people's experiences of eco-emotions manifest in and shape social climate movements for climate action, in this case Fridays For Future The Netherlands (from now on FFFN). This has been done by qualitative research methods. Most scientific research on eco-anxiety used solemnly quantitative methods (Coffrey et al., 2021). By doing qualitative research on how young people experience their emotions, I can contribute by studying the underlying feelings and expressions of young people, using FFFN as a case study. Furthermore, this research can contribute by lessening the existing knowledge gap and can help in understanding how young people experience eco-emotions, how this is shaped by social movements and how (collective) eco-emotions shape social movements in return. Knowledge about how the diverse eco-emotions experienced by members of a social movement are connected can also contribute in understanding how these emotions motivate activism (Kleres and Wettergren, 2017).

The structure of this thesis is outlined as follows. First, the theory that forms the basis of this study will be provided in chapter 2 and 3. This theoretical framework deals with the importance of emotions in social movements. An explanation about collective emotions and a list of relevant emotions for this study is given to help understand which emotions young activists experience and how these emotions manifest in social movements. Next, the research questions are stated in chapter 4. In chapter 5 the methodology of the research is described and chapter 6 provides the data of this research. It shows how the emotions experienced by the members of FFFN stimulated them to become a climate activist and keep motivating them to stay committed to the climate movement. It also shows how different emotions interact with and strengthen each other, and it describes which individual and collective emotions are experienced by the members of FFFN. In chapter 7 the results will be elaborated on in a wider scientific debate. A discussion about the theory and methods used and recommendation for future research are given here as well. Next, the research questions will be answered and a conclusion is provided, after which the study ends with the reference list and annex.

2. Theoretical Framework

In this section I will explore the theoretical debates around emotions. I will start by describing a general approach of emotions in sociology about primary and secondary emotions. Next, I explain the theory of moral batteries and address several sociological theories regarding emotions and its link to the collective through shared and reciprocal emotions. This helped to understand how emotions manifest in social movements and how emotions can be both individual and collective. Based on this information, I made a selection of eco-emotions that are relevant for this research. Each eco-emotion will be elaborated on towards the end of the theoretical framework. This also helped to distinguish the different emotions that are felt and experienced by young people in FFFN. I end the theoretical framework by describing the role of emotions in social movements and ability of emotions to stimulate collective action. In the theoretical framework is shown that emotions are formed through the interaction between individuals. Positive and negative emotions can interact and strengthen each other, this way driving action. Although different emotions can be experienced as motivational or demotivational, emotions in social movements are needed to become active in the first place (Turner, 2007) and to stay active and committed to the movement (Bishop and Willis, 2014; Ojala, 2012; Van Ness and Summers-Effler, 2018).

2.1. Emotions

Multiple researchers explore the theoretical debate around what emotions are. Bericat (2016) gives multiple definitions of emotions, since it is hard to give just one, and Turner (2007) mentions that the definition of emotions differs among for example biological, cognitive or cultural perspectives. I will thus not give a strict definition of emotions, but generally approach emotions as motivating forces (Jasper, 2011; Kleres and Wettergren, 2017) that are important in social movements, since they are continually present and can stimulate the success of a movement (Jasper, 2011). Kleres and Wettergren (2017) address the integrated approach of emotions and "see emotions as both consciously and non-consciously informing and motivating rational action and decision-making" (Kleres and Wettergren, 2017, p. 508). They emphasize that emotions drive action and that mere knowledge about a subject is not enough to take action (Kleres and Wettergren, 2017). Jasper (2011) also emphasizes that "emotions are a core part of action" (p.298). An emotion, whether positive or negative, regulates the relationship an individual has with its environment and indicates the importance of this relationship for the individual (Bericat, 2016). They are what Jasper called "an aspect of interaction" and are in this way connected to the collective (2014b, p.341), although the individual itself remains the centre of these emotions (Bericat, 2016; Jasper, 2014b). Emotions are thus neither completely individual, nor fully collective, but somewhere in between through the interaction between individuals (Jasper, 2014b) or interaction with the environment (Milton, 2005). This helps to understand how emotions are shared in social movements through the interaction between its members. In the following sections, I will dive deeper into emotion theories and its connection to the collective.

2.2. Primary and secondary emotion

Bericat (2016) emphasizes the importance of addressing different classes of affective states of emotions and mentions the primary and secondary emotions as described by Kemper (1987) and Turner (2007). This theory describes a common approach of emotions in sociology/anthropology and I have used this approach in combination with theory about emotions in social movements to understand the emotions of the interviewees. Furthermore, based on this theory a selection of eco-emotions relevant for this research was created to investigate which emotions are of importance in social climate movements.

Primary emotions

Turner states that "primary emotions are those states of affective arousal that are presumed to be hard-wired in human neuroanatomy" (Turner, 2007, p.2). These primary emotions are seen as universal, psychological, linked to biological processes and of evolutionary importance (Bericat, 2016; Kemper, 1987; Turner, 2007; Van Ness and Summers-Effler, 2018).

Turner (2007) distinguishes the following primary emotions: aversion-fear, assertion-anger, disappointment-sadness and satisfaction-happiness. Kemper (1987) mentions similar primary emotions, what he proposes to be fear, anger, depression and satisfaction. Although labelled slightly different, there is a consensus that these emotions (fear, anger, depression/sadness and satisfaction/ happiness) are primary emotions (Kemper, 1987; Turner, 2007).

Secondary emotions

In contrast to primary emotions, secondary emotions are socially constructed (Bericat, 2016; Kemper, 1987; Turner, 2007). They are linked to the primary emotions in the sense that they can only be formed through socialization when at least one of the primary emotions is experienced as well (Kemper, 1987). By combining primary emotions, new emotions emerge (Turner, 2007). Examples of secondary emotions, or elaborations of primary emotions as stated by Turner (2007), are guilt, grief, shame, anxiety, love and nostalgia (Kemper, 1987; Turner and Stets, 2005, as cited in Van Ness & Summers-Effler, 2018). Emotions like anger, guilt and grief can be stimulating sources to drive change-orientated movements (Turner, 2007). Kleres and Wettergren (2017) argue that fear, hope, anger, and guilt are pivotal emotions in climate activism, which partially overlap with the primary emotions as found by Kemper (1987) and Turner (2007). How activists deal with these emotions can affect their motivation to act and the success of the mobilizing strategies activist use (Kleres and Wettergren, 2017), which helps to understand the experience of emotions of the young activists in my study.

2.3. Moral batteries

Another theory about emotions is that of Jasper (2011) who brings up the concept of "moral batteries" (p.291). He mentions that moral batteries consist of positive and negative emotions, just like a normal battery has a positive and negative pole. The tension between these poles, or in this case the interaction between the positive and negative emotions, drives action. The combination of the positive and negative emotions that form moral batteries can strengthen the emotions and can direct action towards a desired state or goal (Jasper, 2011). According to Jasper, "hope is often the positive pole" (p.291) in these moral batteries and a common "moral battery combines hope for future change with fear, anxiety and other suffering in the present" (p. 291). By exaggerating the contrast between how bad things are at present and how good things can be in the future, motivation to take action can be stimulated (Jasper, 2011).

Each emotion can work in various ways for different people, but each eco-emotion might stimulate people to take climate action individually or collectively (Kelly, 2017). Kelly also mentions that the negative eco-emotions should be combined with a positive emotion, just like explained in the theory about moral batteries of Jasper (2011). Emotions can thus be coupled or flow directly from one into another. Based on multiple studies, Van Ness and Summers-Effler state that "a movement might chain together a series of emotions to create a distinct "emotional journey"" (2018, p. 418). It was therefore interesting to see how young people experience this "mixture of feelings" that climate change might evoke (Hickman, 2020, p. 416). I have used this theory of moral batteries in combination with the theory of shared and reciprocal emotions as explained in the next section to understand how the young people in FFFN experience diverse emotions and how this might shape the movement, because this helped to answers the research question.

2.4. Shared and reciprocal emotions

In contrast to the previous sections, this section dives more into collective emotions. Bericat (2016, p.503) distinguishes three types of social emotions that are relevant for sociology: 1) interactional emotions; 2) group and collective emotions; and 3) emotional climates and cultures. For the purpose of this research, the group and collective emotions are most interesting since they address the emotions that members of a group, in this case FFFN, experience and express (Bericat, 2016). I will address these group and collective emotions as shared and reciprocal emotions, as explained by Jasper (2011). This theory was needed to make a distinction between which collective emotions young people from FFFN might experience. It helped me to analyse the data and to understand how these emotions might shape social movements.

Shared emotions

Shared emotions are the emotions that the members of a movement share towards a third party or object (Jasper, 2011; 2014a; 2014b). Kruger (2015) describes three ways through which emotions might be shared: expressively, contagiously and collectively. According to Leon et al. (2019), there are two requirements that theories of shared emotions must include: reciprocal other-awareness and integration (p. 4859). The reciprocal other-awareness aspect encompasses that multiple people are engaged in the sharing of an emotion and are reciprocally aware of each other. At that moment, one person does not experience shared emotions as his or hers, but as theirs/ours. Leon et al. (2019) give an example about a winning curling team, where the joy and pride the teammates experience are not just individual emotions: "it is a joy and pride that is felt *together* with others, as one that *we* are having. In other words, I experience the joy and pride not simply as *mine* but as *ours"* (p.4859). Therefore, the first requirement is thus that people are aware of others experiencing the same emotions and being aware that they are influenced by each others emotions. The second requirement encompasses feelings of togetherness and the ability of people to identify oneself with others "in order to experience oneself as *one of us*" (Leon et al., 2019, p. 4861). Salmela and Nagatsu (2017) describe the importance of these requirements as well. They state that people should be able to perceive the emotions another person expresses in order to share emotions. Furthermore, the authors point out that people share an emotion when they experience an emotion of the same type with similar evaluative content and affective experience, while both being aware of having this similar experience (Salmela and Nagatsu, 2017, p. 457). Salmela and Nagatsu (2017) mention how emotions cannot exists without underlying concerns, and they propose it is the extend to which these concerns are shared that determines to what extend the emotion is shared. They explain these concerns to be most strongly experienced as collective when people are committed to the same group, know they face the same concerns and view these concerns as collective. This theory is thus relevant for this study, since the members of FFFN are all committed to the same group and experience similar concerns regarding the consequences of climate change. Therefore, the members might experience shared emotions more strongly.

Jasper (2014b) distinguished four categories of these shared emotions: First, there are the shared "reactions to the actions of others" (p.348). Jasper explains that a common example is that of moral shocks towards third parties who do not act upon the shared goals or moral values of the group or individual. Our emotions and our goals are intertwined (Jasper, 2011) and collective goals (like climate justice for FFF) can stimulate collective action (Fritsche and Masson, 2021). According to Jasper (2011), human goals in social movements can either be a constructive or deconstructive force. It is likely that people who are in the same situation at the same time or people who have similar goals and expectations experience the same (or similar) emotions since they are affected by the same processes (Jasper, 2014b). When people share goals, for example that of climate justice, outsiders who do not

act upon these goals can thus cause members of FFF to experience the same emotions in reaction to the violation of their goals or moral codes. The second category is about the feelings we share as a result of our own actions (p.348). These can for example be joy when actions succeed or disappointment when actions fail. These emotions are easily shared through facial expressions, since we tend to feel the emotions associated with peoples expression (Jasper, 2014b). Both the first and the second category can be considered short-term emotions. Third are then the "feelings due to our long-term affective and moral commitments" (p.348). These long-term emotions can be seen as emotions that are present in the background, such as feeling loyal to or being proud of FFF, or feeling anxious about climate change. These can either positively or negatively reinforce the short-term emotions. Last, there are "medium-term moods" (p.348). They can either be positive or negative and can be formed by, as well as increase the power of, the experienced short-term emotions or the emotions caused by mimicry of facial expressions of others (Jasper, 2014b).

Reciprocal emotions

Reciprocal emotions are the emotions that the members of the movement feel for each other (Jasper, 2011; 2014a; 2014b). It are the emotions we feel towards the people we are interacting with in our group. It can be emotions that are felt towards the movement as a whole, but also to individual members (Jasper, 2014b). How members feel towards each other, or towards the whole movement, can be seen as important background emotions since reciprocal emotions "form patterns of trust and attraction that can channel protest activity" (Jasper, 2014b, p. 350). It can also be these reciprocal emotions that motivate people to join a movement (through social networks and relationships with people) and it are those emotions that keep them participating in the movement (Jasper, 2011). Positive reciprocal emotions have the power to keep the movement going, while negative emotions are able to disintegrate the movement (Jasper, 2014a; 2014b).

The shared emotions can strengthen the emotions people feel for each other (Jasper, 2011) and the shared an reciprocal emotions can contribute in forming a collective identity (Jasper, 2014b) in social movements. In the case of FFF, the shared anger towards for example Shell or politicians for not acting upon the Paris agreement can strengthen reciprocal emotions like love or respect that members feel for each other. As Van Ness & Summers-Effler (2018) mention: "Without a target to blame, negative emotions may develop into anxiety rather than a more constructive and targeted outlet for anger" (p.417). Through their collective action and collective emotions, social movements, like FFFN, might be capable of mitigating negative emotions and ensure young people that they are not alone in acting against climate change (Kleres and Wettergren, 2017; Nairn, 2019). In the next section, I will elaborate on a selection of eco-emotions I created based on the above-mentioned theories.

3. Eco-emotions

In order to be capable of answering the research questions, I will explain some eco-emotions (also ecological emotions or climate emotions) in further detail. I use the term eco-emotions (as also used by Stanley et al., 2021) to describe the emotions (and feelings) that are experienced as a result of the ecological/climate crises. I combined the findings of above mentioned studies in order to investigate what is most relevant for this research. Therefore, I made a selection of the following emotions: eco-anxiety/eco-fear, eco-anger, eco-depression, eco-grief, guilt and hope.

3.1. Eco- anxiety

Eco-anxiety is described with a variety of terminology and several definitions in scientific literature can be found, resulting in some inconsistencies in the use of the term (Clayton et al., 2020; Coffrey et al., 2021; Pihkala, 2020a). Concepts and other eco-emotions related to eco-anxiety are for example: eco-grief, eco-despair, eco-fear or eco-anger, but also feelings of hopelessness, powerlessness and uncertainty about the future are commonly used in literature about eco-anxiety (Pihkala, 2020a; Hickman, 2020). Despite that in research about social movements fear is often associated with a lack of action (Kleres and Wettergren, 2017) and anxiety is seen as an emotion stimulating the active avoidance of a problem (Stanley et al., 2021), fear can be a motivating force driving an individual to take part in climate action (Kleres and Wettergren, 2017). Kleres and Wettegren (2017) explain how fear can be motivating through its connection with hope. This is more clearly reflected when eco-anxiety is reframed as eco-compassion or eco-empathy (Hickman, 2020). This shows peoples attachment or relationship with the environment, and emphasizes that their feelings of anxiety are a result of their love and care for the natural world (Hickman, 2020). This bond with nature can then be a stimulating force to participate in climate activism or even turn feelings of anxiety and despair into hope (Nairn, 2019). Hope is an essential element in this manifestation, since hope can mitigate despair (Nairn, 2019) and the paralyzing effects of fear (Kleres and Wettergren, 2017), and it can form a positive counterpart of negative emotions in what Jasper (2011) calls moral batteries.

Pihkala (2020a) describes the difference between anxiety, worry and fear. Worry is seen as the lesser intense emotional feeling of the three and fear is usually the result of a direct threat, while anxiety is the result of a "troubling situation" (Pihkala, 2020a, p.4) (in this case climate change) and therefore brings more uncertainty. Nowadays, the effects of climate change are becoming more visible, for example trough droughts, heat waves, and floods. This makes that climate change can take "a tangible form" (Neckel and Hasenfratz, 2021, p.259), making this difference between fear and anxiety smaller. Bericat (2016) describes how fear can be seen as an overarching concept, composed of sub-categories like worry or anxiety. Although the differences between fear and anxiety are thus recognized and acknowledged, no distinction between eco-anxiety and eco-fear is made for the purpose of this research.

One of the most cited definitions for eco-anxiety is that of Clayton et al., (2017): "a chronic fear of environmental doom" (Clayton et al., 2017, as cited in Pihkala, 2020b). Pihkala (2020a; 2020b) also uses this definition, but describes eco-anxiety as "considerable distress that is caused in a significant degree by the ecological crisis" (2020b, p.4). Hickman on her turn argues that "eco-anxiety is not just an emotional response to the facts and experience of environmental crisis and threat; it includes a relationship between these emotional responses and the cognitive knowledge that we have both caused the threat and are failing to sufficiently act to reduce it" (Hickman, 2020, p.414). Edwards (2008) describes eco-anxiety as "the psychological response to a constellation of environmental events such as global warming, climate change, resource depletion, species extinction, and ecological degradation" (Edwards, 2008 as cited in Kelly, 2017, p.3). In this study I will combine the research of

Hickman with that of Kelly and see eco-anxiety as both a emotional response (Hickman, 2020) as well as a psychological response (Edwards, 2008) to future-orientated losses (Comtesse et al., 2021).

In the definitions given above is spoken about "a chronic **fear**" (Clayton et al., 2017), "considerable **distress**" (Pihkala, 2020b) and **emotional responses** (Hickman, 2020) to explain eco-anxiety. Although more examples can be given, this already shows the tight connection between terms like eco-anxiety, eco-fear and eco-distress and raises the question how eco-anxiety is experienced and how it relates to other eco-emotions.

Climate anxiety

There is a slight difference between eco-anxiety and climate (change) anxiety. Eco-anxiety is seen more as an umbrella term, relating to a feeling of anxiety as a result of the ecological crisis (Pihkala, 2020a; Pihkala, 2020b). Climate (change) anxiety has a narrower scope and is focused on anxiety caused by anthropogenic climate change (Pihkala, 2020a; Pihkala, 2020b). Both eco-anxiety and climate anxiety are commonly used in scientific literature, and despite the difference both terms are equated in many cases (Pihkala, 2020b). In this research, I will limit myself to using the term eco-anxiety.

3.2. Eco-anger

Bericat (2016) describes anger as being the node to which a range of similar emotions, like annoyance or rage, are connected. Kemper (1987) relates anger to the power-status dimension of his earlier work, and describes that anger is felt when the person in question loses power or status and deems someone else responsible. In the case of climate change, this can be related to developing countries who deem developed (western) countries responsible for the consequences of climate change and it explains why anger in combination with fear and the ascription of guilt is especially associated with climate action in southern countries (Kleres and Wettergren, 2017). These countries blame northern countries for their environmental problems, which makes them transform their fear of climate change into a feeling of anger pointed at the norther countries which they hold responsible (Kleres and Wettergren, 2017). However, also in northern countries and climate movements anger can be used as a motivation for activism. In the case of FFF, this can for example be anger towards politicians since activists from FFF feel very strong about pressuring politicians to make changes to prevent climate change (Wahlstrom et al., 2019), and anger towards older generations is also common by young people (Hickman, 2020).

According to Stanley et al. (2021), the experience of eco-anger (and eco-frustration) can be associated with both personal and collective engagement in pro-environmental behaviour and climate activism. It is an action-orientated emotion (Lazarus, 1999) and anger is seen as a strong motivation for collective activism, although thus predominantly in southern countries (Kleres and Wettergren, 2017). Eco-anger is thus an activating emotion, in contrast to eco-anxiety and eco-depression since depression is a deactivating emotion and anxiety can only be seen as an activating emotion in the sense that it can be a motivating force to avoid dealing with environmental threats (Stanley et al., 2021). Of the mentioned eco-emotions, eco-anger does not seem as bad for people's mental health and could even lower the experience of other negative eco-emotions as depression, anxiety and stress (Stanley et al., 2021). In combination with hope, anger can become a positive motivational emotion (Kleres and Wettergren, 2017). This relates to the concept of moral batteries of Jasper (2011) again, showing that the interaction between positive and negative emotions can make these emotions more powerful.

3.3. Eco-depression

Lazarus describes depression as “a mixture of several emotions - for example, anger, anxiety, guilt, shame, and sadness” (1999, p. 656). In the case of eco-depression, it can thus be seen as a mixture of these negative emotions towards climate change. Eco-depression has tight connections with other eco-emotions, like eco-anxiety (Pihkala, 2020a), and both emotions are experienced as a result of climate change (Hrabok et al., 2020). Depression can occur when people loose hope, and is therefore seen as a result of despair (Lazarus, 1999). Although depression is seen as a deactivating emotion, it also seems to stimulate people to participate in collective climate action (Stanley et al., 2021). Therefore, eco-depression can be seen as a relevant eco-emotions for activists to join a social movement.

3.4. Eco-grief

Cunsolo and Ellis (2018) define ecological grief as “the grief felt in relation to experienced or anticipated ecological losses, including the loss of species, ecosystems and meaningful landscapes due to acute or chronic environmental change” (p.275). Ecological grief (or eco-grief, I will use both terms similarly) is seen as a natural and common response to such ecological losses (Comtesse et al., 2021; Cunsolo and Ellis, 2018; Neckel and Hasenfratz, 2021) and is likely to be experienced more frequently in the future (Comtesse et al., 2021). Although Lazarus (1999) states that grief is not an emotion, it is treated as a such in this research.

Cunsolo and Ellis (2018) address three contexts in which eco-grief is experienced (p.276-287). The first theme, about physical ecological losses, relates to the experience of ecological grief resulting from, among others, land degradation or species extinctions caused by climate change. This form of grief can also be associated with solastalgia. According to Cunsolo and Ellis (2018), this form of ecological grief “was often accompanied by strong emotional reactions, such as anger, sadness, frustration, anxiety, distress, hopelessness, depression and despair” (p.277). The second theme is related to grief as a result of the loss of traditional ecological knowledge and identities, and the third theme is about experiencing eco-grief as a result of future losses (Cunsolo and Ellis, 2018). As this last form of grief is future-orientated, it is linked to eco-anxiety (Comtesse et al., 2021) and both this grief and anxiety are likely to be experienced more often by especially young people (Clayton, Manning, Krygsman and Speiser, 2017, as cited in Cunsolo and Ellis, 2018). People with a stronger connection to nature, for example through their work or living area, are more likely to suffer from eco-grief (Comtesse et al., 2021; Cunsolo and Ellis, 2018). Having experienced a climate disaster or living in an area vulnerable to climate change are other circumstances under which eco-grief is experienced more often and in more severe conditions (Comtesse et al., 2021; Cunsolo and Ellis, 2018).

Comtesse et al. (2021) propose “that ecological grief is a phenomenon of yearning that refers to actual and past physical ecological loss or to future situations that trigger the actual/past loss, including all ecological losses such as home environments, ways of life, landscapes, species or ecosystems” (p.7). With this definition in mind, they also emphasize the differences between ecological grief, solastalgia and eco-anxiety. Solastalgia can be defined “as the distress caused by the unwelcome transformation of cherished landscapes resulting in cumulative mental, emotional, and spiritual health impacts (Galway et al., 2019, p.11) and Pihkala (2020a) emphasizes that “solastalgia tries to capture the feeling of homesickness, longing, and sadness that a person may have even though she still lives home, because the home environment is being changed or even destroyed” (Pihkala, 2020a, p.9). Although solastalgia can be seen as a sub-concept of ecological grief, solastalgia is mostly limited to feeling grief over the loss of a landscape (Comtesse et al., 2021). Ecological grief is a broader concept, also relating to the loss of species, traditional knowledge and lifestyles or future losses. Eco-anxiety is future-

orientated (Clayton and Karazsia, 2020) and therefore has its connections with the third theme Cunsolo and Ellis (2018) address: ecological grief over future losses. This again shows the tight relationship between different concepts related to eco-anxiety.

Neckel and Hasenfratz (2021) mention that grief "is not a purely individual feeling. It arises from the affective bonds that people share with each other and appears as a collective duty and ritual act imposed by the group" (p.262). It is about collectively recognizing or acknowledging what we are losing. This grief over what is lost, or what will be lost, can stimulate action when combined with feelings of anger or hope, but it can also be deactivating or depressing when the emotional burden becomes too high (Neckel and Hasenfratz, 2021). This notion could help us understand the experience of eco-emotions within a social climate youth movement.

3.5. Eco-guilt

Since guilt is seen as a secondary emotion, it has been created in social situations and in combination with a primary emotions. Fear is the primary emotion to which guilt is connected and it is this connection that makes guilt an emotion (Kemper, 1987). Building upon theories in which guilt is often associated with punishment and seen as a form of anxiety, Kemper (1987) states that "guilt is fear of the punishment that has followed upon the commission of forbidden acts" (p.277). In the case of environmental crises and climate change, it does not necessarily has to be a forbidden act that triggers guilt. It could be a feeling of guilt after having done something of which you are aware will harm the environment or seems morally wrong, such as feeling guilty after flying (flight shame). Through social norms and moral codes in relation to the ecological crises, guilt can thus also be socially produced (Neckel and Hasenfratz, 2021)

Turner (2007) describes guilt as an emotion that is related to his primary emotion of disappointment-sadness combined with fear and anger. The feeling of fear can be related to the fear for the punishment that Kemper mentions, and the anger to anger at the self for doing something morally wrong. Kleres and Wettergren (2017) also mention a relation between guilt, fear and anger. They state that through the ascription of guilt, demobilizing fear can be transformed to mobilizing anger (p.508). In their research, they also found that their interviewees from norther countries reject the feeling of guilt while interviewees from southern countries blame norther countries for climate change (Kleres and Wettergren, 2017). Repression of negative (secondary) emotions can cause its primary emotions to rise to the surface or the specific emotions to be turned in other negative emotions (Turner, 2007). In the case of repressing the feeling of guilt, it might cause anxiety, fear and depression to be experienced (Turner, 2007). However, Turner (2007) also mentions that guilt can mitigate the negative feelings of depression, fear and anger, since people's motivation to avoid feeling guilty can be a strong incentive to become more aware of moral codes and act upon them. This might indeed create the mobilizing anger as explained by Kleres and Wettergren (2017).

3.6. Eco-hope

Bishop and Willis (2014) define hope as "the ability to perceive positive futures" and view hope as being socially constructed (p.781). In this research, I will use their definition of hope and treat hope as an emotion (Lazarus, 1999).

Bishop and Willis (2014) did research with young people between the age of 11 and 16 years old. Their interviewees saw hope as a collective or socially constructed emotion that needs social support to be sustained (Bishop and Willis, 2014). In their research, they found that their research participants were mostly positive and optimistic towards the future. This is in contrast to for example the findings of Ojala (2017). Based on several studies, Ojala found that when considering environmental crisis, people

are rather pessimistic about the future (2017, p.77). The young people interviewed by Bishop and Willis (2014) saw hope as a very important aspect of their lives, up to the point that they saw no point in living a life without hope. They also view hope as an essential part of pursuing ones goal. Bishop and Willis (2014) describe that "it is hope which provides first, the self-confidence and belief that goals are achievable, and second, the much needed, ongoing determination to continue on the sometimes rocky path towards achieving these goals" (p.786). This might also apply to social movements like FFF. Without the hope for a better future or hope in pursuing the goal of environmental justice, it might be hard to find the motivation to keep participating in climate activism. Hope for a better future is needed to keep activists motivated and committed (Bishop and Willis, 2014; Ojala, 2012; Van Ness and Summers-Effler, 2018).

Ojala (2012, p.628) describes three main themes of hope. First, there is positive re-appraisal. In the case of climate change, this theme implies that although people are aware of the environmental crisis and do worry about this, they choose to look at these threats from a positive point of view by focussing on what is already done or achieved, thus using their emotions constructively and stimulating climate action. The second theme relates to trust in sources outside oneself, such as other people or technology. This helps viewing environmental problems as a collective burden and relates to the research of Nairn (2019). The last theme is about trust in ones own ability to influence environmental problems in a positive direction, such as through pro-environmental behaviour (Ojala, 2012).

Related to Ojala's (2012) second theme is that of collective action. Collective action is capable of forming hope and hope in its turn can stimulate activism (Kleres and Wettergren, 2017). Nairn (2019) describes how collective processes can help to create hope and she distinguishes four of these collective processes: 1) Climate change should be addressed as a collective problem; 2) Participating in collective action against climate change; 3) Connecting to the global climate movement and 4) Climate change is normalized and taken for granted, it is the main discourse for the majority of the population (Nairn, 2019, p.445). Emotions, and especially hope, can be seen as an incentive for both individual and collective action (Nairn, 2019). However, (false) hope can also have negative effects and may result in young climate activists to burn out (Nairn, 2019). This can be caused by a collective denial of climate change by the larger non-activist population. This collective denial might increase the burden individual young climate activists feel to do something about climate change, making them feel more responsible and possibly cause them to experience feelings of despair and guilt, burn out and quit participating in climate activism (Nairn, 2019). One of her interviewees mentioned that a lot of people stopped participating in climate activism due to the disappointment or burn out they experienced as a result of never seeing positive effects or accomplishments of their work (Nairn, 2019). However, hope can also have a positive influence on how one thinks about oneself (Bishop and Willis, 2014). Bishop and Willis (2014) describe a relation between hope and negative emotions as anxiety and despair: hope might be able to alleviate the negative effects of these emotions. This way, Bishop and Willis (2014) emphasize a connection between hope and resilience (p.782). This case study might contribute to the debate by providing knowledge about how young people from FFFN experience hope in combination with other eco-emotions.

Hoping for something positive also implies that at the moment this something is lacking, missing or negative and we trust in the process of our hopes to become true (Lazarus, 1999). However, we cannot be sure about the future, which brings some degree of uncertainty to the process of hope. According to Lazarus (1999) "the future uncertainty that underlies hope means that anxiety about our present and future plight will usually be a significant feature of the emotional state" (p.655). Hope "is a mixed state of mind that also entails underlying distress about what the present might imply for the future" (Lazarus, 1999, p.655). This shows that hope and anxiety are tightly connected.

As Jasper (2011) describes that hope is often the positive part of the moral battery, his theory of moral batteries can be recognized in diverse studies about hope. Nairn (2019), for example, describes an interaction between hope and despair: despair can educate hope in such a way that it mitigates the negative effects of being too optimistic, such as the experience of feelings of depression, guilt or burn out when failing to reach the goals that were based on false hope. On the other hand, hope can also educate despair, since hope and optimism are seen as the driving forces behind climate activism (Nairn, 2019) and hope can be seen as a coping strategy that combats despair (Lazarus, 1999). This interaction between positive (hope) and negative (despair) emotions can thus be related to the moral battery theory of Jasper (2011).

Besides the relation between hope and despair, Kleres and Wettergren (2017) mention that hope can alleviate the negative effects of fear. Fear might be transformed into anger and stimulate action, which in its turns generated hope (Kleres and Wettergren, 2017). This again relates to the moral battery theory of Jasper (2011). Hope is essential in the relation with eco-fear (or eco-anxiety), to manage its paralyzing symptoms and transform it to more action-orientated emotions. This way, hope seems to be essential is combination with negative emotions to make them practically useful as a driving force behind climate activism (Kleres and Wettergren, 2017).

3.7. Emotions in social movements

The above mentioned studies and eco-emotions thus show the relevance of emotions in activism through their capability to stimulate action. I have addressed the importance of shared and reciprocal emotions in social movements, mentioning that according to Jasper (2014b) collective action depends on these emotions. The shared and reciprocal emotions are ways "by which individuals align their emotions through social interactions: by reacting the same way to the same experiences and by identifying with broader collective" (Jasper, 2014b, p. 348). Emotions can therefore form and inspire social movements (Bericat, 2016) and are an important motivational force to act (Jasper, 2011; Kleres and Wettergren, 2017). Besides, Salmela and Nagatsu (2017) mention sharing concerns determines the degree to which emotions are shared, and explain how commitment to a group strengthens these shared concerns. This is relevant since the members of FFFN are committed to their group and share the same concerns regarding the consequences of climate change. These shared concerns might thus strengthen their shared emotions. Furthermore, emotions play an important role in social movements like FFFN, since they are always present, shape collective goals and underly the success of the movement (Jasper, 2011). The theory of collective emotions can help to understand which emotions young people within a climate movement experience, how this might motivate them and how these emotions can shape the movement.

The moral battery theory of Jasper (2011) can also help to understand the mixture of emotions the members of FFFN experience, and can explain how the interaction between these emotions might motivate them. Just as Jasper (2011), Kleres and Wettergren (2017) also mention that the key to the motivating power of the negative emotions that activist experience (as fear, anger and guilt), is the combination with positive emotions, especially hope (p.515). In social movements, the negative emotions are often a motivation for individuals to start taking action, while the positive emotions are rather chosen to show to the outside world. It are the positive emotions rather than the negative ones that are used as a strategy to mobilize bystanders by social movements (Kleres and Wettergren, 2017). The theory also showed that positive emotions can result is a higher likeliness for participants to continue their work in social movements (Jasper, 2011). Emotions in social movements are needed as a driving force behind the commitment of joining the movement (Turner, 2007) and hope can keep activists motivated to participate in climate movements (Bishop and Willis, 2014; Ojala, 2012; Van Ness

and Summers-Effler, 2018). Besides, climate activists themselves see national as well as international collective action as very effective in making a change (Wahlstrom et al., 2019), while individual action or a lack of action of others is likely to be de-motivating (Fritsche and Masson, 2021).

Furthermore, movements can also make use of collective emotions to get their message across. Extinction Rebellion for example uses collective fears to emphasize the urgence to act upon climate change (Neckel and Hasenfratz, 2021). FFF originated with Greta Thunberg and her school strikes (Fridays For Future, 2021; Martiskainen et al., 2020). She spoke the words: *" I want you to feel the fear I feel every day and then I want you to act!*" which is an example of how collective emotions can be used to stimulate collective action (Neckel and Hasenfratz, 2021, p.259). Eco-anxiety is one of the commonly shared eco-emotions among members in climate movements or people who experienced the consequences of environmental/climate events (Neckel and Hasenfratz, 2021). Neckel and Hasenfratz (2021) describe the feeling of anxiety and fear as "emotional catalysts of movements that counteract negative developments such as a global climate collapse" (p.259) and mention how members of the climate movement Extinction Rebellion "understand anxiety as a necessary and motivating stimulus for action, without which people would be much less willing to actually get involved" (p.259).

Emotions thus have multiple functions in social movements. The above-mentioned theories were used to formulate my research questions and helped in analysing and understanding the data. It also shows how important different emotions are and emphasizes that although eco-anxiety is an initial emotion that people experience when becoming aware of climate change, it often develops into other eco-emotions (Hickman, 2020). From eco-despair (Kelly, 2017; Nairn, 2019) and ecological grief (Cunsolo and Ellis, 2018; Comtesse et al., 2021) that can be linked to eco-depression (Stanley et al., 2021), to eco-anger (Kleres and Wettergren, 2017; Stanley et al., 2021) that more often is linked to climate activism (Nairn, 2019; Stanley, 2021). The data will show how the experiences of these emotions of the young climate activists manifest in and shape Fridays For Future the Netherlands.

4. Research questions

From the introduction and theoretical framework can be concluded that young people in climate movements can experience many different eco-emotions and that these emotions are important drivers for climate action. Based on my theoretical framework and the existing knowledge gaps, the objective of this study was to examine how young people's experiences of eco-emotions manifest in and shape social climate movements for climate action, in this case Fridays For Future The Netherlands. To reach this objective I created the following main question:

How do experiences of eco-emotions from young people of Fridays For Future The Netherlands manifest in and shape social climate movements for climate action?

To be able to answer this question, I came up with four sub-questions. Each of them is divided in different themes/questions. Answering these questions will help in lessening the existing knowledge gap and understanding how young people experience diverse emotions in social movements, how their experience is shaped by social movements and how (collective) eco-emotions shape social movements in return.

The first question addresses who the members of Fridays For Future the Netherlands are and how they perceive climate change. The answer to this question provides the context in which the research took place. It deals, among others, with the motives of young people to join the movement and what the members' personal climate related goals and the movement's national collective goals are. Furthermore, to help answer this sub-question I looked into the perception of the young people from FFFN on climate change. These topics were addressed during the interviews and free-listing exercise.

The second question relates to which eco-emotions the young people from Fridays For Future the Netherlands experience. Answering this question helps to analyse which emotions are present in the climate movement and it is a first step in understanding in what ways people experience different eco-emotions. The following sub-questions can build upon this one. This question was operationalized through a free-listing exercise, participant observations/social media observations and the interview.

The third sub-question is as follows: how do young people from Fridays For Future the Netherlands experience collective eco-emotions to be present within the movement? In contrast to question 2, which focusses more on individual emotional experiences, the emphasis of this question thus lies on the collective. To answer this sub-question, I looked into whether or not collective emotions are present and experienced by the members of FFFN and whether the movement itself pays attention to emotions within the movement. Furthermore, I investigated in what ways the young participants feel that being a member of FFFN shapes their experience of (collective) emotions. The information to answer this question was gathered from the interviews and participant observations. Answering this question can help in understanding how experiences of eco-emotions manifest in social movements.

The last sub-question addresses how the young people from Fridays For Future the Netherlands perceive the ways in which the eco-emotions present stimulate climate activism. The eco-emotions found in question 2 and 3 will in this question be of further use to see how these emotions stimulate activism. To answer this question, I looked into the ways that young people from FFFN put motivation for climate action out of their motives to join the movement and their (collective) goals. Furthermore, I addressed which personal/individual emotions the young participants describe to be motivational or demotivational and how the young people from FFFN perceive collective emotions to be motivational or demotivational. Answering this question can help in understanding how emotions stimulate young people to participate in climate activism.

5. Methodology

The information needed for this study was gathered by executing an exploratory case study in FFFN. For this exploratory case study on eco-emotions in climate movements, I made use of the following methods: social media observation, participant observation and interviewing members of FFFN. The relevance of each of these methods and how they were executed will be explained in more detail below. This includes some ethical considerations that were made, like dealing with Corona, doing interviews with children under the age of 16 or how to pursue anonymity. I end the methodology chapter by explaining how data analysis was done and how I took my positionality into account during the research.

5.1. Exploratory case study in FFFN

For the purpose of this research I have done a case study on Fridays For Future the Netherlands (FFFN). Doing a case study within this movement focussed on climate activism gave me the opportunity to get a comprehensive view of the interests of these young people, and dive into underlying emotions, feelings and expressions of individual members. Young people were determined to be between 12 and 24 of age, based on multiple sources: the UN who defines youth as people between the age of 15 and 24 years old (United Nations, 2013); Wahlstrom et al., (2019) who found that most people who participated in the FFF climate strike during his research were between 15 and 19 years old; FFFN itself who state on their website that they consist of (high school) students (Fridays For Future Nederland, n.d.); and my personal observations in the field. I choose to execute an exploratory case study design as they are often used for theory building (Baskarada, 2014) and can be used to explore situations where there are no clear outcomes yet of the concept or unit under study (Yin, 2003 as cited in Baxter and Jack, 2008). Through social media I gained initial access to the field, mostly by following the Instagram accounts of local FFFN groups. Further access was obtained through participant observation. This will be explained in more detail below.

Fridays For Future is a worldwide youth led climate movement. The movement originated in 2018, inspired by the school strikes of Greta Thunberg. FFF is represented on all continents and in 7500 cities, including multiple cities in the Netherlands (Fridays For Future, 2021; Fridays For Future Nederland, n.d.). Wahlstrom et al. (2019, p.6) mention how FFF "is a historical turn in climate activism" since "never before have so many young people taken to the streets to demand climate action through the symbolically forceful disobedience of a school strike". According to Wahlstrom et al. (2019), "global climate protests under the slogan #FridaysForFuture mobilized more than 1.6 million people around the globe in March 2019" (p.6). Through among others demonstrations, climate strikes and campaigns, FFFN (and FFF in general) tries to emphasize the urgence to do something against the environmental crises and the need to do this together. They state that everyone needs to take responsibility, especially big corporations and the government as they have the power to make a bigger impact than individuals. FFF aims to limit the negative consequences of climate change to reach their vision of a just and liveable world for everyone (Fridays For Future, 2021; Fridays For Future Nederland, n.d.).

5.2. Social media observations

I started my research by doing social media observations, since "social media data offer great possibilities for the study of social movements" (Hanna, 2013, p.385). The profiles and post of the activists can provide relevant information about themselves, their activities and what they deem as important (Hanna, 2013). Through social media, I was able to access information coming from the activists themselves, or as Hanna states: "we can often observe their self-reported activity from real-time data" (2013, p.385). It is also relevant for this study to pay attention to what young people from

FFFN post online since “political participation amongst young people is increasingly taking place both online and offline” (Mare, 2007, p.647).

I began with the website of FFFN, on which they provide information about themselves, their goals, their events and give their contact details (Fridays For Future The Netherlands, n.d.). This way, I found that each of the 17 Dutch departments has its own Instagram account. I thus followed the account of every local department of FFFN and the national account. Using these online platforms for research purposes can be called “virtual ethnography” or “social media ethnography” (Mare, 2017, p.646). Mare (2017) describes some steps that are typical for virtual ethnography which were of use to me ass well. These are for example background listening, friending/liking and observing (Mare, 2017).

Besides that every group has its own Instagram account, some groups also provide their e-mail address on the website, and most groups included a link to their WhatsApp information channel. Most of the local groups were not very active on any social media during the data collection phase of this research. Instagram was most useful. I thus used Instagram to do observations regarding what was posted, to stay informed of upcoming events and to get in contact with the participants.

Furthermore, I participated in three online meetings, doing online participant observations, since due to Corona meetings were held online. In the cases that I joined an online meeting, I changed my name online to something like: Sanne_researcher Wur. Furthermore, I introduced myself and my research purpose during the introduction round in the beginning of the event to make everyone aware of my role as a researcher. I also send a message in the chat towards the end of the meetings, again explaining my research purpose and giving my contact details in case somebody would be willing to do an interview. Table 1 gives an overview of both the Instagram messages about past or upcoming events as well as the online meetings I joined and that were used as information gathered from online observations in my results.

Table 1: Information on online (participant) observations

Date	Group	Observation
9/10/2021	Emmen	Fear the climate crisis
21/11/2021	National	Open meeting FFF
24/11/2021	Utrecht	Black Friday clothing swap
27/11/2021	Zwolle	Boycott Black Fridays
28/11/2021	National	Open meeting Students For Climate
17/12/2021	National	The coalition agreement
10/1/2022	National	#smoke screen
11/1/2022	National	Meeting Students For Future

5.3. Participant observations

Kawulich (2005) describes participant observation as “the process enabling researchers to learn about the activities of the people under study in the natural setting through observing and participating in those activities” (Kawulich, 2005, sec. 2: *Definitons*). DeWalt and DeWalt (2011) mention that participant observation can increase the validity of a research when it helps to understand the context of the phenomena under study. For this research, participant observation was done on multiple days and in multiple cities (see Table 2). I made use of social media to know when and were there were possibilities for me to join an action, either through posts on Instagram or messages in the WhatsApp information channels.

Table 2: Information on participant observations

Participant observation		
Date	Place	Activity
24/09/2021	Utrecht	National climate march
22/10/2021	Zwolle	Local silent march
6/11/2021	Amsterdam	(Inter)national climate strike
10/12/2021	Roermond	Local weekly school strike
17/12/2021	Groningen	Local action on hope and togetherness

Gold (1957) describes four observation stances explaining different degrees of involvement of the researcher. These are: 1) complete participant; 2) participant as observer; 3) observer as participant and 4) complete observer. Where in stance 1 an 4 the research participants are unaware of being studied, in stance 2 and 3 they are aware of the researcher and its purpose. The difference between stance 2 and 3 is that as a participant as observer the researcher is a member of the group under study, while as an observer as participant this is not the case (Gold, 1957). I made use of the role of observer as participant. As an observer as participant, I have participated in certain activities, while the main purpose remained to collect data. When I participated in small scale local events the research participants were aware of my role as observer as participant. This was not the case during the two national climate marches that I joined, since there were too many people to make them aware of my role as a researcher. In the case that I joined small scale local events, like the ones in Zwolle and Roermond, I got in contact with one of the people organizing the event and asked for permission to join, considering my research purposes. On arrival, I introduced myself to other participants as well. This was not possible during the national events. During each event, I also made pictures and notes/jottings on my phone. This was done to help me remined my observations prior to writing full notes, and remind research participants of my role as observer as participant.

5.4. Interviews

I have done interviews with people from the age of 12 onwards. If participants were not 16 years old yet, I asked permission from their parents to interview them. I first got in contact with the research participant, via Instagram or WhatsApp. I explained them what my research is about and how the data from the interview would be used. After they agreed to do an interview, I asked them their age. If they were not 16 years old yet, I explained them that I needed permission from their parents or guardian by e-mail before I was allowed to interview them. I gave them my e-mail address, and asked whether they could ask their parents to send me an e-mail in which they state to understand what the interview is about and in which they give permission to interview their child. After I got the permission, I handled everything with the research participant from there on.

I found my research participants through various ways. I contacted each local group by sending them a message on Instagram, explaining who I am, what my research is about and asking whether there were people in their group who would be willing to do an interview with me. Apart from the accounts of the local departments that I started following (or friending), I also send some requests to individual members of FFFN. On the website of FFFN, they have a blog in which they posted short interviews with some of their most active members. I thus send a friend request on Instagram in case I could find them, and send these members a message as well. In a couple of cases, someone reacted on that message. Sometimes the reactions were very enthusiastic and resulted in people who wanted to do an interview. Sometimes, people answered that they would ask others whether they were interested and in other cases I got no reaction at all. I also e-mailed some local groups, but none of them answered on the e-mails. Another way I got interviewees was by doing participant observation. At the end of the actions I participated in, I chatted a little with some of the people who organized the event about how it went. I also again explained my research, showed my interest in their activities and asked if someone would be willing to do an interview. This also resulted in some interviewees. Furthermore, at the end of every interview I asked the interviewee whether he or she knew someone else from FFFN that would be willing to do an interview. This snowball method also helped me to get some interviewees.

I aimed to get a representative sample of the members of FFFN. However, in practice it was hard to find any research participants at all. Therefore, the only hard criteria were that research participants had to be a member of some local group of FFFN or the national group and that they had to be at least 12 years old. Furthermore, I tried to get a representative sample by getting people from as many different local groups as possible, and not too many from one specific local group. I also made sure not to have too many graduate students and assuming that most FFFN activist would be female (Wahlstrom et al., 2019), I also tried to get in contact with males specifically. However, keeping the boy-girl ratio somewhat equal was not achievable within this time frame. Table 3 gives an overview of the interviewees. Of these 15 interviewees, 4 people were active in FFF Amsterdam or on national level, 2 people were active in FFF Groningen, 2 in FFF Roermond and the other participants were from FFF Maastricht, Eindhoven, Arnhem/Nijmegen, Zwolle, Amersfoort, Leeuwarden or Rotterdam. The names in Table 3 do not correspond to the actual names of the participants, but are pseudonyms to pursue anonymity.

Table 3: Overview research participants

Participant	Age	Gender
Sophie	>18	F
Lucas	14-18	M
Ruben	<14	M
Emma	14-18	F
Jesse	14-18	M
Julia	14-18	F
Sara	>18	F
Floris	14-18	M
Amber	14-18	F
Nora	>18	F
Anouk	14-18	F
Mila	14-18	F
Vera	14-18	F
Milou	14-18	F
Niels	>18	M

The interviews were semi-structured as this gave me the opportunity to have some flexibility during the interview and dive deeper into certain topics depending on the answers of the interviewee, while still addressing the same topics during each interview. All interviews were held online, either in Dutch or English, in consultation with the interviewees. Doing the interviews online was favourable in this case considering Covid-19 measures and for practical reasons. Since the research participants are living all across the Netherlands, it would be very time consuming to visit each interviewee in person by public transport. In addition, I would visit a place where I do not know anything. Therefore, I also had no place to be able to privately held the interview. In all cases, the interviewees also preferred an online interview.

Free-listing

Punch (2002) mentioned that stimulus material and task-based techniques can improve the interview as it can give the interviewees more time to think and it can stimulate discussions. During the individual semi-structured interviews, I used free-listing as a task-based technique. Free listing is an often used technique in anthropological studies (Hough and Ferraris, 2010). It is a simple technique, in which the research participants are asked “to list all the X you know about” (Hough and Ferraris, 2010, p.295) or “list all the kinds of X that you can think of” (Ryan et al., 2000, p. 84) when asked about a certain domain. I used the free-listing exercise to start conservations on the basis of the list of the specific research participant.

This technique was used twice. Once in which the interviewees were asked to write down every word that comes to mind when thinking about climate change. Afterwards, they had to make a top three of the words which best represent their thoughts about climate change. The second time the research participants were asked to write down which emotions they feel when thinking about climate change. They again got the time to write down their answers and make a top three. I used their answers during the interview to ask them about why they chose these words and how these emotions make them feel.

5.5. Data analysis

After data collection, interviews were transcribed non-verbatim. Coding was used to analyse the data. “Codes are essential issues, topics or concepts that are present in data” (Hennink et al., 2020 p.218). The codes have both methodological and practical reasons (Hennink et al., 2020). To develop the codes, I used both deductive and inductive strategies. Which strategy I used for specific concepts is

indicated in the codebook. The codebook was created based on the example codebook in Hennink et al. (2020, p.225).

I choose to code in word. Based on my research questions, I created the following main themes: 1) the movement; 2) individual emotions and perception of climate change, 3) collective emotions and 4) motivations for activism. I decided to use a different colour for each theme. This is the first way I coded my data. Reading through the interviews and observations, I marked relevant pieces of text with the specific colour of the main theme that the text could be assigned to. Next, I looked at the content of the data more specifically, and used the comment section in word to create more specific codes. In an Excel file I kept track of which codes I was using and created my codebook. Going through the different interviews, I was able to change, combine or reform my codes over and over again. I thus started by open coding, followed by axial coding and lastly selective coding.

5.6. Positionality

My personality might have influenced the results to some extend (Berger, 2015; Hennink et al., 2020; Holmes, 2020). Holmes (2020) emphasizes the importance of reflexivity, and describes it as "and essential process for informing developing and shaping positionality" (p.2). I am aware that my positionality also influences my understandings and interpretations of the data. With a reflexive approach I tried to understand how it might have influenced the results. Berger (2015) points out that "reflexivity in qualitative research is affected by whether the researcher is part of the researched and shares the participants' experience" (p. 219). I am a female Forest and Nature Conservation student of Wageningen University, studying a youth climate movement dominated by females. Although I am not an 'insider' nor part of the movement, I share certain commonalities with the research participants, like my age, sex and interest in the environment and climate change.

Being a female research of similar age might have made it easier to open up for the participants, especially for the female research participants (Broom et al., 2009). Being a female and having similar interests in sustainability/nature conservation could also have facilitated the process of finding people willing to do an interview and the bond created between the interviewee and research participant. Barker and Smith (2001) carried out fieldwork with children between 5 and 12 years old. They found that being a female researcher aids in establishing field relationships with children, at least in what they call "the feminised world of childcare" (p.146) as women are more accepted as an 'insider' than men. Although this study does not relate to childcare and research participants in this study were at least 12 years old, it indicates that being a female researcher might have its privileges and might have made it easier for the research participants to accept and open up to me.

Furthermore, I could have biased the answers given during the interviews by the framing of certain questions or accidentally steering towards a certain direction, and the results might be biased by my interpretation of participants answers. I also changed the structure of the interview as well as formulation of certain questions multiple times during the process, which might have results in slightly different answers from the participants. The answers of the interviewees could also be influenced by my positionality (Hennink et al., 2020). As my positionality and the way I present myself can determine the information the research participants are willing to share (Hennink et al., 2020), I tried to dress and behave appropriate for the social-cultural context of the research situation during the interviews and participant observations. For example, I made sure to wear sustainable mouth masks instead of disposable mouth masks during the participant observations. I have presented myself as a Wageningen University Forest and Nature Conservation student who is concerned about climate change, just like the research participants. If they asked me whether I am also active in a climate movement or usually participate in climate strikes, I honestly answered that protesting is new for me and that participating

in the actions is mostly for research purposes, since I prefer contributing to stopping climate change by individual lifestyle changes, like eating less meat or taking the train instead of the car.

6. Results

The results will be elaborated on in three different chapters, each ending with a short conclusion. The first chapter will introduce the movement, concerning data about the structure of the movement, its members, goals and actions. In the second chapter, the perception of the members on climate change as well as which emotions climate changes evokes for them will be discussed, including whether the members experiences these emotions as motivational or demotivational. Lastly, data about the experience of collective emotions and the importance of sharing their emotions will be discussed. This chapter also addresses whether collective emotions are found to be motivational and which role emotions play in members motivation to become and stay active.

6.1. Introducing the movement and its members

This chapter serves as an introduction to the movement and its members, and aims to answer the first research question. It begins by explaining the general structure of the movement Fridays For Future, after which it narrows down to national and local level in the Netherlands. Some information about the members of FFFN is given, like their age and personalities, as well as the individual climate related goals of the members and collective goals of the movement. Furthermore, a description about the type of actions organized by FFFN and its local departments is given. Towards the end, a conclusion is provided. It shows how FFFN is a Dutch climate movement, consisting of both high school and university students that together strive to reach climate justice and limit global warming to 1.5 degrees through collective action. Therewith, this chapter gives the context in which the young climate activists of FFFN express and experience their (eco-)emotions .

6.1.1. Fridays For Future

FFF is a worldwide youth led climate movement, represented in many countries. The demands of the movement, as stated on their website[1], are to:

1. keep the global temperature rise below 1.5 degrees compared to pre-industrial levels;
2. ensure climate justice and equity;
3. listen to the best united science currently available.

They emphasize how everyone needs to take their responsibility, especially big corporations and the government as they have the power to make a bigger impact than individuals (Fridays For Future, 2021; Fridays For Future Nederland, n.d.). The Netherlands is just one of the countries with active groups from FFF that tries to realize these demands. Apart from the group that is active on national level, 17 local groups are active in diverse cities throughout the Netherlands. While the local groups focus on reaching people on local level with their actions and mobilization, the national group addresses people on national level. Lucas explained how on the national level they are occupied with among others social media and cooperating with other organizations and coalitions, like Crisis Climate Coalition or Extinction Rebellion, and working on different projects. For example 'Klimaat in de Klas" (climate in the classroom) is a project on which they focus to make climate change a bigger part of the educational programs and make people aware of climate change. There is no hierarchy in the movement, nor does

[1] https://fridaysforfuture.org/what-we-do/our-demands/

the movement has a board. The members are all equal and simply divide the tasks when something has to be done.

Although FFF is internationally a large organization, in the Netherlands they are not as big as they seem. Some local groups had not been active for over a year, mostly due to a lack of members. Emma stated: *"Fridays For Future is not as big as it looks sometimes. On national level, I think we are only with 20 really active people"*. Vera mentioned to believe that around 50 to 60 people in total are active within FFFN, including people of the 17 local groups. These local departments organize events or actions in their own cities. Although they work independently, they are supported by the national group and the other way around. The local groups differ a lot from each other, for example in their activity, size and members. Some groups are very active and held school strikes every Friday (like Roermond), others have not been active for years (like Haarlem and Hoorn). Some groups are quite big and/or growing (Like FFF Roermond or Groningen), other local groups are much smaller and only consist of a few very active people (Like Amersfoort and Leeuwarden). Some groups only have (Dutch) high school students, some only (international) graduate students, and other are mixed. The development of FFFN and its local groups is thus variable, although most groups seem to grow.

6.1.2. Young climate activists

According to some of the members, it is quite a specific type that is joining FFFN. They are not immediately representative for all young people in the Netherlands. Emma stated: *"I don't know why, but the people who join Fridays For Future are usually not quite the standard. Maybe that is the reason they can engage in activism"*. Mila described this as well*: "what I notice is that you really get one type of person. That you really get the kind of hippies and very high educated people. But there were not enough people, at least in my group, that were just the average Dutch person who wanted to do something for the climate and I thought that was a shame"*. Educational wise, this is also confirmed by Wahlstrom et al (2020), who noticed that "among FFF-protesters, too, the highly-educated parts of society are over-represented", which not only accounts specifically for FFFN, but for FFF (and climate movements) in general (p.10).

Apart from fighting against climate change, many members from FFFN also seem to stand up for other problems or injustices. Doing participant observations in Roermond on Spirit Day, I noticed many members took effort in honouring this day. The members who went striking that day had painted their nails purple and some were wearing purple clothes out of solidarity to LGBTIQ+. Furthermore, during online meetings I noticed many people put pronounces behind their names, like (she/her), (him/his) or (they/them). This indicates the awareness of people about misgendering and the attention they pay to this problem occurring. It also matches the strong feeling of solidarity of the members of FFFN, and their motivation to fight against climate injustice, discrimination or other forms of injustice. More about this intersectional approach of climate change will be explained in the following chapter.

The members of FFFN are between 12 and 24 years old. The average age differs a lot between local groups, but most active people are between 14 and 18 years old. Sophie mentioned: *"the groups that are most involved in the bigger picture are mostly the groups from the Randstad. They live closer to each other, they founded it and they are often younger. They are not 18 years old yet"*. This is quite similar to what Wahlstrom et al (2020) found during their research. They found that of the 5000 tot 6000 people who participated in a climate strike in Amsterdam in 2019, about 85% of their respondents was between 15 and 19 years old. However, during my observation and interviews I found that many people within FFF are older than 18, some groups even completely rely on graduate students. The younger high school students are Dutch, but of the graduate/university students a lot are international as well. Therefore, some local groups speak English during their meetings and actions,

while nationally almost everything is done in Dutch. The share of graduate students within FFFN has raised a discussion whether these graduate students should remain part of the movement or not, which will be explained in more detail later on. What was also noticeable is that two thirds of my research participants were female, which might indicate that woman are more active or more represented in FFFN than men. Wahlstrom et al (2020) found that about 70% of their respondents during the climate march in Amsterdam were female, and about FFF Germany, Noth and Tonzer (2022) describe woman to participate in climate marches more often than men. They explain "the role of gender is also reflected by the fact that the movement is headed by female leaders, like Greta Thunberg in Sweden, Luisa Neubauer in Germany and Anuna De Wever in Belgium" (Noth and Tonzer, 2022, p.1). Women thus not only form the majority within FFFN, but within FFF in general.

Furthermore, climate activism often seems to be part of a broader sustainable lifestyle. In their research, Noth and Tonzer (2022) found that young people who participate in climate marches like the ones from FFF are more likely to show environmentally friendly and sustainable behaviour. I also found that most of the members of FFFN seemed to be vegetarians or vegans, and several members mentioned to buy their clothes second hand. Sophie explained: *"of course I am a vegan, I love shopping second hand, I live small, I don't use gas and also don't have a car"*. Besides these individual behaviours to live more sustainable/ environmentally friendly, they collectively focus on politics and big polluting companies. That these are aspects members generally care about is also reflected in their actions, goals and thoughts about climate change. This will be addressed in more detail later on.

Apart from general motives to take part in climate activism, some participants addressed specific reasons to join FFF instead of another climate movement. Most participants explained reasons out of convenience or simply because they did not really know other climate movements. One of the international members mentioned to have joined FFFN because she was already amazed by the work FFF did in her own country, and when coming to University in the Netherlands she decided she wanted to be part of the movement to be able to contribute as well. Furthermore, the members mentioned reasons to stay at FFF after finding out about other movements. Emma stated: *"I think regarding the youth groups we currently have in the Netherlands, Fridays For Future is the most activist and most diverse and that motivates to stay at Fridays For Future"* and Nora mentioned about her local group: *"I also wanted to find a nice community and that's like a nice community that I found with them"*. This thought is shared by most members, who explained FFFN to be a very open and accessible movement where everyone is welcome. Compared to for example Extinction Rebellion, FFF is also mentioned to be a better place to start when you are young or new in climate activism, since it is more accessible and has less civil disobedience (Jesse). Besides, Sophie and Amber both mention that it is specifically nice of being a member at FFF that it is such a large organization with brand awareness and lots of possibilities.

6.1.3. Students For Future

During the time span of this research, another youth led movement formed itself from FFFN. In the Netherlands a discussion is/was going on about whether students should remain part of FFFN or not. Since the movement started with the school strikes of Greta Thunberg when she was still a high school student, some members argue FFFN should remain a high school movement. Jesse mentioned: *"well, Fridays For Future is really aimed at high school students only, a bit on students, but especially high school students"*. This is interesting, since Sophie explained: *"the international teams don't have an age limit, that's really something that some people in the Netherlands want here"*. However, a lot of local groups include, or consist of, graduate students. Sophie told how this discussion hurts her and

other older students, since they have been active for the movement and now feel unappreciated and left out by the same people they have done a lot for.

As a result of this discussion, a new group emerged from Fridays For Future, called Students For Future (SFF). With SFF they provide members that graduate from high school the possibility to make the transition from FFFN to SFF, this way keeping FFFN a high school movement and SFF a student climate movement while still being connected. At the moment, some people stay active in FFFN after they graduate because there is no real student focussed alternative, and because they have their connections in FFF. SFF thus aims to work together with FFFN and provide a flow from the one into the other. They want to use the same structure as FFF for their movement, including a national group that organizes meet ups and local groups that mobilize people. SFF aims to be a student group that demands climate justice and activism from Universities, since this is where their focus lies. They also have their own logo, similar to that off FFF (see Figure 1).

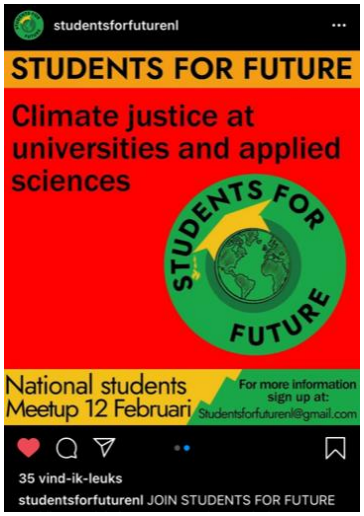

Figure 1: poster Students For Future ([studentsforfuturenl], 2022)

However, this student movement is quite new and not entirely worked out yet. It is not know by everyone, and also not entirely clear. Niels explained not to have heard from SFF yet, although their whole local group consists of (international) students and Amber answered: *"Yes, we had a discussion whether there should be an age limit. I belief that it was decided that in any case at a local level the students are allowed to stay, but that perhaps at a national level the people who are at the top and serve as the faces of the movement shouldn't be students. But I think it will remain the same at local level. Otherwise there are lots of local groups that will collapse"*. This last part is important. The groups who completely consist of graduate students, would thus all become for example SFF Groningen or SFF Zwolle, instead of FFF. This would make FFFN a lot smaller. Emma explained another problem. Most members of FFFN are still in high school and according to Emma, high school students are not known for doing a lot. She explained this to be difficult since she cannot become angry if they do not do something*, "because nobody gets paid, everyone is voluntary, everyone is a student and has to go to school"*. By mixing different ages, it might become more steady and reliably when trying to organize actions.

However, some local groups, like Leeuwarden and Groningen, also mentioned to have troubles finding high school students. FFF Leeuwarden already decided to become Students For Future Leeuwarden some time ago. Sara explained: *"we think that maybe when we present ourselves also as Students For Future, we might be taken more seriously than schoolchildren, because people tend to look down, especially on school children. And as we cannot really reach out to any school children, we decided maybe just rename ourselves and be a student activist group"*. Another reason for making the transition from FFF to SFF for this group is that there is a stigma around FFF of "*children being loud",* thus Sara. In this way, it makes sense to bring SFF into life. When FFF focusses on mobilizing high school students and SFF focusses on mobilizing graduate students and demanding actions from Universities, the scope of the movement and therefore the people they reach could be broadened.

6.1.4. Climate goals

The members of FFFN each have their own personal climate related goals that they hope will be achieved in the future. Besides their personal goals, the research participants also explained some goals to be representative for the whole movements. These shared goals are important as goals in social movements can either be a constructive or deconstructive force (Jasper, 2011) and collective goals can stimulate collective action (Fritsche and Masson, 2021). Below I discuss both the goals that interviewees mentioned to be their personal individual goals and the goals of the movement, and

explain whether striving to reach their goals is experienced as motivational or demotivational by the members of FFFN.

Individual goals

Governments initiating action to stop the climate crisis seems to be one of the most important climate related goals for many individual members of FFFN. However, I found there are also members who do not trust the government anymore and claim individual efforts to be more effective. Apart from this governmental theme, three other themes reoccurred when asking the members what their individual climate related goals or hopes for the future would be: 1) personally making an impact/contribute to stopping climate change; 2) system change and 3) saving the world. Each will be elaborated on in this section.

As a movement, FFF(N) seems to focus on governments that need to take action (Fridays For Future, 2021; Fridays For Future Nederland, n.d.). Politics, governments, capitalism, overconsumption, Shell and other big polluting companies are returning themes within FFFN. The research participants explained that the majority of the members of FFFN focus on government related action, because they believe that the government and big corporations can have a much bigger impact on fighting climate change than individuals. This position is probably influenced by the international movement, since on the website of FFF is noted that the goal of the movement is "to put moral pressure on policymakers, making them listen to scientists, and then to take forceful action to limit global warming" (Fridays For Future, 2021). Goals that interviewees mentioned were for example for governments to stop investing in fossil fuels or stop subsidizing companies like KLM. Furthermore, the members emphasized governments should take action to stop big corporations from polluting: "*that they will take measures so that the big corporations will do much more. I believe those are the big culprits",* thus Milou. Buzogány and Scherhaufer (2022) also found that within FFF Germany "especially powerful economic interests and the modes of production their economic power is based on are seen as the main culprits that hinder transitions towards sustainability" (p. 6). These government related goals are strongly connected to goals like hoping for system change or peoples mindset to change. Julia for example, mentioned: *"I would really like to have a better climate agreement in the Netherlands and a government that actually gives a shit about fighting climate change. So, my hope is really that motions will be taken and laws will be adjusted by the new formation, which can actually bring about systematic change nationally, and that it will not be only individual changes, like people who eat less meat".*

However, there were also participants who felt betrayed or disappointed by the government. Therefore, their goals focus more on the impact individuals could make by changing their mindset. Mila explained: *"since I find it so hard to talk about it politically, since I strongly feel that they do not listen, I would really like it if it would become the social norm to be climate friendly".* Furthermore, she stated: *"if the society wants to change something about climate change, politics will follow and change as well. However, as long as the society does not think so, politics will not change either*". Although Mila mentioned that her goal is in contrast to that of others in the movement, during my observations I found more people with similar opinions as Mila. However, most participants in FFFN do still believe that with their actions they can affect politics and that although the confidence in politicians is low, this is the best way to accomplish stopping climate change. This is similar to the results of Buzogány and Scherhaufer (2022), who point out that the members of FFF Germany also feel like their government is failing to act against climate change, but that despite the members' disappointment in the government they still believe that political changes are capable of restraining climate change most effectively (Buzogány and Scherhaufer, 2022).

Besides political changes, Jesse mentioned to aim for educational changes. He explained that in his opinion, schools do not pay enough attention to climate change and that the information that is provided is often outdated. Although not having it specifically mentioned in one of her goals, Mila also described the importance of education. In her opinion, paying more attention to climate change in education is one of the solutions to climate change. Although it was not addressed by others, it is something that prevails within the movement. This is also why FFFN works on projects like "Klimaat in de Klas" (climate in the classroom) to put more attention to climate change in education (Fridays For Future Nederland, n.d.).

In general it can be concluded that members' individual goals come down to making a positive impact and being part of the movement that changes the system. Additionally, Sara views FFF as *"a means to wake people up"* and believes this is already accomplished. According to Sara, the next step it now to be taken seriously. Describing how FFF also provides scientific research and suggestions on how to stop the crisis from emerging, her goal would thus be *"that these also more scientific suggestions would be taken seriously. That Fridays For Future gets seen as not only a movement, but also as a pool of knowledge"* .

Lastly, a goal that was mentioned by Amber was *"saving the world"* and Milou described that her goal, but mostly her hope, was to be able to stay alive for a long time. Although most participants did not specifically mention this as being their goal, it kept coming back during multiple interviews, conversations and observations. It relates to people's motivation to keep participating in climate activism and their feelings of responsibility and anxiety for the future. Jasper (2011) describes how our emotions and our goals are intertwined. In each of the goals above, but especially in the one of saving the world, the connection between the members' goals and emotions is visible. Hope is found to be essential in the process of forming ones goals and in enabling and pursuing to achieve ones goals (Bishop and Willis, 2014). Further importance of these emotions will be addressed in the following chapter.

Collective goals

Regarding the movement's national collective goals, it was noticeable that most people did not know what the collective goals of the movement were. This is remarkable, since Fritsche and Masson (2021) explain collective goals to be able to drive collective action. They point out that "agentic groups have shared goals, display goal-directed action, and affect their environment" (p.114). Still, the answers of Anouk and Milou were quite representative. When being asked whether FFFN has national collective goals, both replied: *"not that I know of",* to which Anouk added*: "they have a site, Fridaysforfuture.nl, I don't know if there is something on there?"*. In total, 7 people mentioned not to know about specific national goals of FFFN or not being able to name them. Emma gave an explanation for why not many people might know about national collective goals, namely *"we have none. There are so many different opinions, because we are, in contrast to other groups, quite a diverse group. That results in different opinions and therefore we have not come to one real goal yet"*. A couple of participants mentioned that the collective national goals are in progress. When being asked what the collective goals of FFFN are, Floris replied: *"I don't know that out the top of my head, but we have something like a goals list. We are also still working on that as a movement. On setting concrete goals. We had a big meeting about it the other day".*

After participants referred me to the website, I mentioned that according to the website climate justice seemed to be an important goal. Interviewees then elaborated on climate justice as indeed being one of their (inter)national goals. Some people did mention there to be general national goals, like a better

climate policy/climate agreement (Sophie, Lucas, Mila) in the Netherlands, being climate neutral (Floris, Lucas) or striving for climate justice in general. Lucas stated: *"yes, we are a youth climate organisation. We want climate policy, climate justice. We want to fight climate change, fight global warming, and that this happens in a fair and just way".* This position is shared by most members, as could also be observed during their marches and strikes. They often shout certain chants, like: "what do we want!?" upon which others answer "Climate justice!". Climate justice is "the recognition that the impacts of climate change disproportionately impact the most vulnerable, marginalised, and least resilient populations in society" (Martiskainen et al., 2020, p.3). Climate justice thus encompasses more than equally dividing the burdens of climate change (Schlosberg, 2004). This emphasis on climate justice relates to what FFF calls MAPA; *Most Affected People and Areas*. For Sophie it is important to protect the rights of the MAPA because *"these are mostly countries of the global South who thus have a small ecological footprint and are the first victims and cannot defend themselves".* Martiskainen et al. (2020) describe how climate justice is a high topic in social climate movements and that these movements can broaden their scope and mobilization by connecting several injustices to climate change. FFF(N) is such a climate justice movements. The importance of climate justice for the members of FFFN will be elaborated on in the next chapter.

Three interviewees also mentioned keeping global warming to a maximum of 1.5 degrees as a collective goal. Niels, for example, mentioned that *"of course there's the consensus on the 1.5 degrees"* and for Sara the 1.5 degrees is *"one of the main goals*". Furthermore, listening "*to the people who have the knowledge instead of always putting profit first"* is also a collective goal, according to Sophie. These themes (climate justice, staying below 1.5 degrees global warming and listing to scientist) are all described as collective goals on international level (Fridays For Future, 2022). Although this message emerges from the national website of FFFN as well, it seems that the national goals do not predominate for the members of FFFN and are thus currently in development.

Julia stated that the local departments are more occupied with their own cities than national goals. Niels explained that each group has its local demands. Sophie for example, mentioned that in Zwolle they came up with some local demands: "*that is more about paying attention to the community, being more self-sufficient as a municipality, but also generate sustainable energy"*. Although national goals are thus in progress, local goals seem to be present in diverse FFFN groups.

Fritsche and Masson (2021) point out that any collective group goal can stimulate people to participate in collective action. Since national goals of FFFN were not really present nor recognized, these are also not seen as a collective motivation for people to participate in collective action. Some participants mentioned striving to reach their personal goals to be a stimulus to keep participating in climate activism. These members mentioned to notice small victories that indicate they are getting closer to their goals. Julia explained how these victories give her hope and how this hope motivates her to stay involved in climate activism. Other participants described how the feel like being part of FFFN helps them in getting closer to reaching their goals. This again shows how people's emotions and goals are entwined (Jasper, 2011). Jasper (2011) also emphasizes that for activists to stay motivated, they have to experience satisfactions along the way. The members of FFFN explained to put hope out of small victories that for them indicate that their activism is effective after all. Julia: *"small changes like that its becoming normal to always bring a bag with you instead of using plastic bags. That kind of small things give me hope"*.

When progress is not visible and the activists only face set-backs, striving to reach their goals is found to be demotivational. Amber explained that as a result of not seeing progress in reaching their goals, members either start participating in more extreme forms of climate activism or simply quit. She

described how for her trying to reach their goals on national level feels like they are not getting any closer and she therefore feels quite hopeless. However, on local level she pointed out small victories are made, which is why she still has some optimism left on local level. Sophie explained that she does not necessarily have to see progress, but experience it as comforting to know that at least they are trying something. All participants I spoke with agree that despite being a climate activist is often demotivational, there is no other option: *"I have to keep going because there is no other way",* thus Jesse.

Fritsche and Masson (2021) state that "identified members of a group perceive collective climate agency when climate protection seems to be a collective goal, or norm, which the group actively pursues and is likely to attain" (p.115). Although these collective goals are still in progress on national level, it is clear that the members of FFFN share the same position: they all strive for climate justice and believe governments and corporations should take their responsibility and initiate action to stop the climate crisis from emerging. In their own way, they therefore still perceive collective climate agency to some extent.

6.1.5. Climate marches, school strikes and symbolic actions of FFFN

Dressed in blue, thousands of people are walking through the streets of Utrecht, symbolizing how one day the city will flood if nothing is done to stop climate change. When looking around, I see young people raising cardboard signs and banners with diverse climate (change) related texts. I hear them shouting chants over and over again and I can feel the energy, enthusiasm and anger of the crowd (see fieldnotes A. Climate march Utrecht).

This personal experience during the national action in Utrecht on the 24th of September 2021 is just one of the many different kind of actions organized by FFFN. The national group is responsible for these actions on national level. They try to address as many people as possible, with help from the local groups, and people from all over the Netherlands will come together in the one city where the action takes place. The action in Utrecht was organized solemnly by FFFN, but there are also national actions organized in cooperation with other movements/organizations. An example was the climate march November 6th in Amsterdam, organized by the Climate Crisis Coalition and its partners, one of them being FFFN. It turned out to be the largest climate strike the Netherlands had ever known. During the march, people walked around with banners and cardboards and were shouting chants. The texts on the cardboards are diverse. Some relate to politics ("More science, less politics"), polluting companies ("You **Shell** Not Pass"), the system (save the climate from capitalism) or consequences of climate change ("Biodiversity loss makes me depressed, please don't let me be sad forever"). The chants that are shouted also refer to governmental inaction, climate justice or the consequences of climate change. Figure 2 shows how politics is also visualized besides being addressed during chants or speeches. Sophie: *"I think it's really nice that nowadays we also see Rutte during those actions, but then like the bad guy. They have masks with the face of Rutte. I think it's really important that we do so to become somewhat politic, because he is just the main responsible of this hassle"*. These national climate strikes are similar to the one in Amsterdam in 2019 described by Wahlstrom et al (2020): walking with banners and cardboards, shouting chants against the government, demanding climate actions from politicians, but also dancing and laughing and participants enjoying themselves.

Figure 2: Activists symbolizing how Mark Rutte and Shell-ceo Ben van Beurden destroy the earth (Beijen, 2021)

On local level each local group has the freedom to organize its own actions, resulting is diverse symbolic actions. Generally, climate marches or school strikes are most common in diverse local

groups. Other types are for example: die-ins, the climate alarm, actions with a theme like indigenous people, Shell or overconsumptions and capitalism, or actions where is focused on specific emotions. FFF Roermond and FFF Zwolle for example, held actions against overconsumption and injustices around Black Fridays. The action of Zwolle was mend to boycott Black Friday and "*to create awareness about the destructive behaviours of these companies"* regarding subjects like child labour, modern slavery and pollution. This thus connects to the members strong feelings about injustice. Another example is the silent march in the sign of ecological grief, held by both FFF Zwolle and FFF Arnhem/ Nijmegen, about which Floris said: *"we had organized some kind of funeral for the earth, as something symbolic. We had made a globe out of paper mache and a coffin out of cardboard and everyone was wearing black cloths. It was very small scale, but it looked very nice and gave a very clear massage and I was just very proud".*

These emotion inspired actions show the importance and presence of certain emotions for the members of FFFN. To my knowledge, most research so far concerning climate movements and collective action has been done on climate strikes or climate marches and the motives of people to join these events. However, research on small scale local actions, like the ones mentioned above, is lacking. I call the above mentioned actions "symbolic actions", since the actions address a specific theme, in this case: grief, hope, fear, overconsumption, capitalism or floods. In their article, van Ness and Sumers-Effler (2018) mention emotional staging to be one of the topics future research should look into. They describe "one fruitful path forward is to study the way activists construct situations to evoke particular cognitions and emotions in fellow activists, bystanders, and social control agents". This relates to be the symbolic actions I refer to in the case of FFFN, with which the activists give form to the action is such a way that they (try to) evoke or address a specific emotional reaction.

When I asked the participants whether these symbolic actions occur often, their answers were divergent. Emma explains that it differs per group. In Amsterdam for example, it does not really happen since there are some older members who believe emotions are a kind of a taboo. However, these symbolic actions seem to be on the rise, as Amber mentioned: *"I think that those kind of actions with emotions or exaggerating things happen often. I believe that is also the way we are going right now, because demonstrations appeared not to help that much. Especially not on local level, because then it's really too small. So then you have to come up with new stuff to make an impact"*. Amber thus pointed out that when local groups organize local events, climate marches are not perceived as being effective nor powerful. By saying they have to come up with 'new stuff to make an impact', she refers to the symbolic actions. The perception that these action are more effective (at least on small scale) in that they succeed in raising awareness and getting the attention of bystanders was shared by multiple interviewees.

In the following chapter, FFFN's perception of the intersectionality of climate change and the emotions this evokes for its members will be discussed. The action held by FFF Groningen creates a bridge between these chapters by indicating how the emotions of the members, their goals and interests are reflected in the actions of FFFN. About the event in Groningen, Nora said: *"our goal was to like get people to feel more connected and inspired to do something themselves"*. On their Instagram page, the group posted an announcement a couple of days prior to the action. Their message includes a couple of themes that reflects the perceptions of FFFN members on climate change very well. In the description of the Instagram post was said:

"The many people – old and young – that came together are united, by their indignation against the carelessly insufficient actions against Climate Change of Dutch and international politics. We have reached 1,2° Celsius of warming. At this point, inaction is a weapon of mass destruction".

This caption reflects their thoughts about the governments inaction. It reflects the anger of climate activists towards the government and politicians. Reading between the lines, it might also reflect a certain feeling of fear for the consequences of the inaction of the government. The theme of the action *"reflects passion to radiate hope and will for change to the people we meet – to be a spark in our own networks, that together can light up Groningen and far beyond"*. This emphasized that although things go wrong, although they are angry at the government and scared of the future, the young climate activist are still hopeful and motivated to keep going. The Instagram message was ended by saying:

"It's our Wish-list and New Year's Resolution to build that better future we want to live in. Celebrate daring hope amidst the imminent climate crisis. Take up responsibility – who do you want to be?".

This makes the message of the participants very personal, and also represents the responsibility the members of FFFN feel. They do not only blame the government, but also older generations for not taking the responsibility for stopping climate change when they were younger. Furthermore, responsibility and solidarity are felt towards the global South, since most people perceive the global North to be responsible for the consequences of climate change in the global South. This short message introducing one symbolic action around hope thus reflects many important aspects of FFFN that will be elaborated on in the next chapter.

6.1.6. Conclusion

This chapter serves as an introduction, providing the context in which the research took place and showing the frame in which young people of FFFN cope with, express and experience their (eco)-emotions. The members of FFFN are young people, between 12 and 24 of age, of which most active members are between 14 to 18 years old. Although FFFN is a Dutch climate movement, international students are also active within local groups and females form the majority within FFFN. In FFFN the emphasis lies on being a climate movement for high school students. Since many members have finished high school, a new movement was brought into life: Students For Future. Together with FFFN, they thus form a group of high school students and graduate students that participate in school strikes for climate justice and demand climate action from schools, universities and governments.

Since FFFN is one of the most active youth climate movements in the Netherlands, good at mobilizing young people and very open and accessible, this motivated young people who just started becoming a climate activist to join this specific movement. Furthermore, most of the members have similar climate related goals to that of the (international) movement: the government should take action to ensure climate justice and keep global warming to a maximum of 1.5 degrees. Together with the demands of the international movement, the individual goals and viewpoints of the members form the national goals of FFFN that are now in progress. The freedom of the local groups to organize their own actions results in many different symbolic actions that each address a specific theme and show the connection between the emotions the members of FFFN experience and the actions they organize.

6.2. Climate change and its effect on FFFN

This chapter deals with members' perceptions of climate change. It starts by addressing several themes the members of FFFN deem as important topics related to climate change. Next, I discuss whether being a members of FFFN has influenced their perception of climate change. Furthermore, I explain the emotions climate change evokes for the members of FFFN and which individual emotions prevail as a result by taking action against climate change. What becomes clear from the results is that pursuing climate justice is very important for the members of FFFN and they view intersectional activism as the best way to achieve this. Furthermore, the chapter highlights how the members individually experience both positive and negative emotions as motivational for climate activism, emphasizing that if they did not perceive climate change as an emergency they would not have become a climate activist. This way, the chapter helps to answer the first and second research question.

6.2.1. Intersectional climate change

At the beginning of the interview, every participant was asked to list down all the words that came to mind when thinking about climate change. This resulted in 15 different lists with many different words. Most can be described to a couple of themes, see Figure 3 (full lists are provided in Annex C). The relative importance of the themes was decided by counting the amount of times words related to a specific theme were mentioned, regardless of whether they were mentioned by multiple participants or not. The most important themes are elaborated on below.

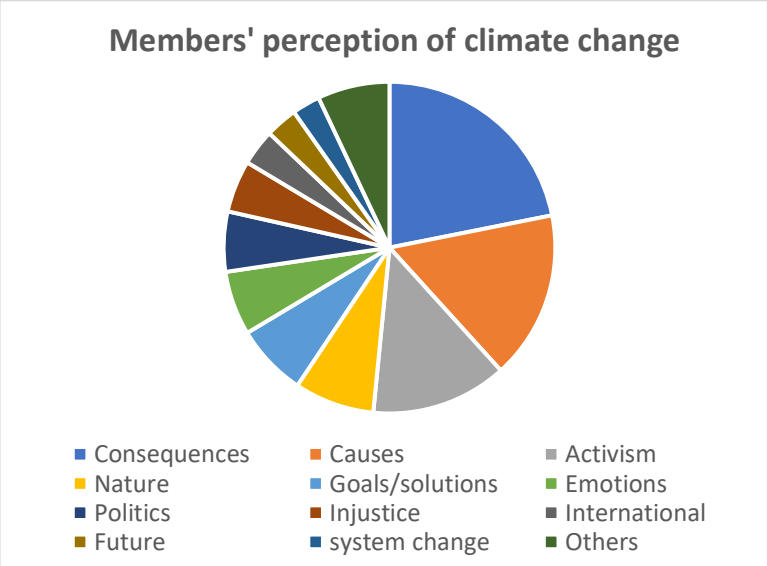

Figure 3: themes related to climate change important for the members of FFFN.

Causes of climate change in the eyes of FFFN

Almost every participant mentioned causes and/or consequences of climate change (see Annex C for all answers). Regarding the causes, mostly fossil fuels and CO2 emissions were listed. Sara mentioned how the climate crisis is human made and Nora pointed out that older generations are responsible for causing the climate crisis. The goals and actions of the members reflected their disapproval of polluting companies, like Shell. They have organized specific actions against Shell and references to Shell are often seen on cardboard signs during protests. It is one of the companies that is taken as an example of how big polluters contribute to climate change.

The causes of climate change mentioned by interviewees also relate to other themes, like injustice, the government or the consequences of climate change. Julia for example, explained it as follows: *"Fossil fuels are still widely used and extracted from the ground by, for example, companies such as Shell. Instead of being discouraged by big bosses, this sounds very serious but I just mean Rutte and the government, it is encouraged because they don't have to pay taxes or anything. As a result, ecosystems are destroyed"*. This shows how for the climate activists, all these themes are connected and follow up on each other. Nora relates natural resource extraction to injustice. She explained that as a result of a demand for natural resources, these are extracted from the planet which harm both the planet and indigenous people. These statements address an underlying issue that is viewed as one of the biggest causes of the climate crisis: capitalism.

FFFN is a very anti-capitalistic movement. Jesse explained: *"money plays the most important role nowadays. Not our world, not our liveability, not our future, but just earning as much as possible"*. Most of the members in FFFN share this position. These participants mentioned that when demanding system change, capitalism is the system that needs to be changed. Buzogány and Scherhaufer (2022) also found that within FFF Germany economic growth and profit maximalization are often mentioned to be the biggest cause of climate change. The members of FFFN feel like the current system is flawed, set-up by older generations and maintained by those in power. Again, this is similar to the results of Buzogány and Scherhaufer (2022), who found that according to FFF Germany the responsibility for capitalism as the biggest cause of the climate crisis lies in the failures of politicians and people in power who "lack the necessary change and are not even willing or able to keep their own promises" (p.5). As a consequence, the younger generations now feel like they inherit the problems of this system. Julia mentioned how she heard a speaker stating: *"climate change is a problem caused by the rich while the poor people have to deal with it"* and she explained how she feels that capitalism is mainly responsible for that. This again highlights how capitalism is connected to injustice in the eyes of the members of FFFN.

The injustice of the consequences

A general feeling shared by most participants is that not doing anything will lead to death, extinctions and even the end of the world. The young activists I interviewed mentioned, among others, migration, hunger, refugees and extinction being consequences of climate change. This also connects to their strong feeling about the injustice of it all. The consequences will mostly affect MAPA (see Figure 4). These Most Affected People and Areas "includes all territories in the Global South (Africa, Latin America, Pacific Islands, etc.) as well as marginalized communities (BIPOC, women, LGBTQIA + people, etc.) that might live anywhere in the world" (Reyes and Calderon, n.d.).

Figure 4: explanation about MAPA [fridaysforfuturemapa, 2020]

Since climate justice is one of the most important goals of FFF, it is not surprising that many people listed words that can be classified to the 'injustice' theme. These are words like: racism, inequality, injustice, indigenous people, colonialism and MAPA. Nora explained to have mentioned injustice in her list because *"I can live like a very privileged life, but I know that millions of people don't have these privileges and it affects these people way worse. And the actions that I take part in in this system that I live in are affecting people elsewhere and that's not justice for anyone"*. With regard to climate justice, the emphasize of the goals of the movement are not solemnly on equally dividing the burdens and risk of climate change. They also aim for awareness and want to see a climate change discourse where the majority of the people perceives climate change as an emergency. This is also found by Schlosberg (2004), who states that the justice mentioned as goal by social climate movements is about more than equally dividing the burdens of climate change. Schlosberg (2004) describes climate justice (or environmental justice) as being threefold: equity in the distribution of environmental risk, recognition of the diversity of the participants and experiences in affected communities, and participation in the political processes which create and manage environmental policy (p.517).

FFF is thus one of the climate justice movements and highlights the importance of intersectionality. Lucas explained how climate change is seen as an intersectional problem at FFF, relating to many other problems in the social dimension. Regarding the intersectional space, he mentioned the climate, residence and diversity, inclusivity and racism to be the most important. According to Reyes and

Calderon (n.d.), *"Intersectionality is the notion of intersecting (marginalized) identities (as MAPA communities and countries). Essentially, it looks into how someone's various cultural, political, and social identities (such as gender identity, sexual or romantic orientation, racial identity, nationality, religion, disability, and more) intersect and create systems of discrimination, disadvantage, and privilege"*. Climate change is thus seen as an intersectional problem at FFF that relates to many other problems in the social dimension. Buzogány and Scherhaufer (2022) found that this is also visible in the movement's framing of capitalism, since their framing of capitalism is linked to both 'carbon-based production modes' and 'colonialism and racism'(p.6). Della Porta and Portos (2021) note that the way FFF links capitalism and the global environmental crisis to climate injustice and MAPA also strengths the success of the movement, especially in mobilizing people. FFF(N) thus not only cares about stopping climate change, but also cares about ensuring climate justice, or justice in general, and intersectional activism is seen as the best way to reach this climate justice.

FFFN: Political problems need political solutions

In FFFN the climate crisis is perceived as a political problem, a consequence of the system and power structures, and since it is a political problem FFFN states it also needs a political solution. According to FFF(N), the responsibility to act lies mostly in the hands of the government. Despite that many members indicated to feel betrayed, powerless and angry as a result of the inaction of the government to stop climate change, most of the members still believe their protest should focus on getting the government to initiate action. Although this seems contradictory, these results are similar to that of Wahlstrom et al (2019). Wahlstrom et al. (2019) show how of their FFF respondents during the climate strike in Amsterdam in 2019, almost 75% agrees that most politicians do not keep their promises and the majority of the people do not rely on the governments to stop the climate crisis. However, Wahlstrom et al. (2019) point out only about 30% of the respondents agreed climate change must primarily be stopped by individual lifestyle changes. The majority of the people in FFFN also still believe governmental action would be more effective than individual lifestyle changes. Anouk gave a reason for this, explaining why she believes it is up to the government: *"I, as a young resident of the Netherlands, do not the power to make big changes, so it is up to the government to take action"*. Another reason might be people's trust in collective efficacy (Wahlstrom et al., 2019). The members of FFFN believe that together they are able to have an impact on Dutch politics, which in its turn will influence society.

Furthermore, people listed answers related to activism. When being asked why Emma wrote down activism, she answered: *"because I think for now activism is the only thing I can do to fight climate change"*. This position is shared by more participants. They view that since they do not have the power to make changes themselves, they can make themselves useful by trying to compel the people in power to take action. This way, climate action also became part of the lifestyles of the participants. For some members, it is now a normal routine to pay attention to climate change and activism in their daily lives. With their actions, they thus try to raise awareness about the climate crisis and force governments and people in power to initiate action to stop the crisis.

The future

Being concerned about the future as a result of climate change, Fridays For **Future** is focused on making sure we will have a liveable future. Jesse explained this very well: *"I think that the whole movement is about is the future. That we want to be something there for next generations after us and for ourselves and even at this very moment"*. This is felt by most members. In their research on climate strikers in six cities in different countries, Martiskainen et al. (2020) found that out of 8 broad themes, concerns for the future of the planet, environment and the climate was the most important motivation for

people to strike, and concerns for their families and future generations was the third most important reason for activists to participant in the strike. These themes were found to be more motivational than other themes like being part of a movement, solidarity or anti-capitalism for these activists (Martiskainen et al. 2020). This highlights the importance of being future orientated for climate activists in general.

Although the members of FFFN recognize that the MAPA are affected much more, they also feel personally threatened by the inaction of others. Members explained it is about their future, the future of young people: *"climate change is really going to have a lot of impact on my future and how I will have to live. It will probably be very different than it is now. Not for the elderly of the people who are in power now, so this is about our futures",* thus Anouk. Although they are not the ones in power, the members of FFFN feel responsible for saving the future of the world. Nairn (2019) did research on climate activists in New Zealand between 18 and 29 years old, and also found that these climate activists felt responsible for solving the climate crisis. Besides, Nairn (2019) points out how this feeling of responsibility can easily become too much and result in a burn-out if these feelings are not shared as a collective burden and responsibility. How the members feel about climate change and their experience with burn-outs will be explained in more detail in the following section.

During the interview, one of the first questions I asked the interviewees was whether they could list everything that came to mind when thinking about climate change. Besides the above mentioned aspects, some people already mentioned climate change related emotions at this point in the interview. Although I would ask the interviewees specifically about which emotions climate change evokes for them later on in the interview, the participants did not know this beforehand. Therefore, it is relevant to point out that some members immediately wrote down emotions that they associate with climate change. Apparently, for these members their emotions or how climate change makes them feel is of such an importance that it immediately came to mind, although the question was quite broad and they had the possibility to list any climate change related word. Emotions/feelings that were already listed were fear, anger, powerlessness, hopelessness, sadness, guilt and not feeling heard. These will be addressed in more detail in the following section.

The influence of FFFN on members' perception of climate change

Young people's perception of climate change seems to be affected by their commitment to the climate movement. About two-thirds of the participants replied that they felt like being a member of FFFN does affect their perception of climate change in some way. Emma and Jesse both made a comparison to Youth for Climate, another youth climate movement, stating that they probably would have had a different view of climate change if they would have gone to Youth for Climate instead of FFFN, since the movements have a different focus. Emma explained: "*Fridays For Future focusses on climate justice. I think that if I would have gone to another movement I would not have necessarily made the connection between climate justice and classism or racism"* and Jesse said: *"Anti-capitalism is something that prevails. I think that it definitely affects my opinion in that way"*. About one third of the participants mentioned that they mostly learned a lot from FFFN. Sophie described how FFFN changed her and Amber pointed out FFFN made her grow as a person. Besides, participants stated that being part of a large group changes your perception. Sophie mentioned: *"I think the solidarity and standing strong together, that changes how you look at the world. That gives an entirely different feeling"*.

This is not the case for all interviewees. Four participants mentioned not to believe that being a member of FFFN influences their perception of climate change. Two of them are international students. One of them mentioned that she felt like her view on climate change is formed through her studies and because she is educating herself on the topic and Vera explained that being with such a

large group of different people with different thoughts and opinions makes that you are not affected by one dominating viewpoint.

6.2.2. Emotions evoked by climate change

Fear, anger, hope, sadness, powerless or words similar to feeling discouraged are experienced by most members of FFFN. How these emotions are experienced by the members of FFFN and whether they are experienced as motivational or demotivational will be explained below. Figure 5 shows the results of the free-listing exercise in which interviewees where asked which emotions climate changes evokes for them. The results are based on how many different participants mentioned a specific word. In the case that one person mentioned both fear and anxiety, this was thus counted as one. Similarly, if one participant mentioned to feel hopeless, devastated and despondent, this was also counted as one under 'discouraged'. Words mentioned by less than two people are not shown in the figure. The full lists can be found in Annex D.

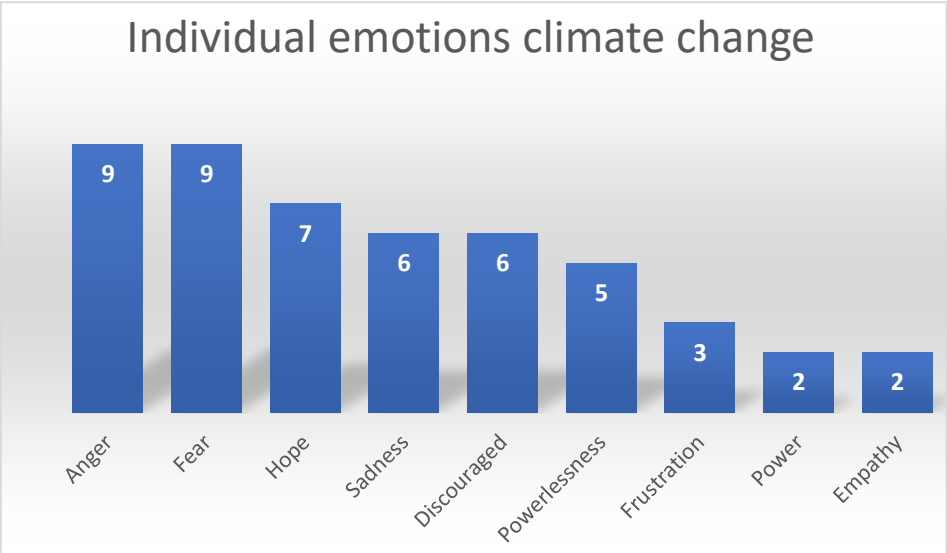

Figure 5: the relative importance of diverse emotions as mentioned by different participants

Anger

Being angry about the inaction of the government, older generations and large polluting companies and their contribution to the climate crisis is one of the most mentioned individual emotions. Multiple participants mentioned to experience feeling angry as a good way to motivate themselves. Sara for example, explained how she turns to activism when feeling angry or disappointed as a result of bad climate news, and how this creates the urge to immediately want to do something about it. That anger is an activating emotion that can stimulate people to act is confirmed by multiple studies (Kemper, 1987; Kleres and Wettergren, 2017; Lazarus, 1999; Stanley et al. 2021).

Besides this anger about inaction, the members of FFFN also strongly feel that they are not being heard. Most participants feel like the government does not care about them. They believe the older generations should have done something, and the government should do something right now. Floris: *the anger is mostly towards people who can do something or could have done something about this, but have done nothing for so long. And also that still too little is happening. It is also a kind of anger on the system and capitalism. That nature is being exploited for money. I can get very angry about that"*. It makes them angry that the people in power are not listening to them, while they emphasize how they are trying to save everyone's future and not just doing it for themselves. Many participants

mentioned to feel like there is a core of youth oppression. Mila: *"it is very frustrating. You just get very angry if you do so much and nothing is happening"*.

This feeling of anger relates to the explanation of Kemper (1987), who describes that anger is felt when the person in question loses power or status and deems someone else responsible. Although Kleres and Wettergren (2017) emphasize that anger is mostly used as an activating motivational emotions in the global South (since the global South places responsibility for the climate crisis in the global North), anger is thus also found to be motivational in FFFN. During their research on, among others, the emotions climate striker in diverse cities feel with regard to climate change, Martiskainen et al. (2020) found that only 17% of their research participants mentioned anger as an emotion evoked by climate change. Pihkala (2020b) points out that "scholars argue that it is important to understand that many other emotions may be hidden underneath anger that manifests in relation to environmental issues" (p.10). This is probably also the case for the members of FFFN. It might be that they consciously choose to express their anger through their actions and more openly share their anger with others, while keeping other personal emotions hidden insight. It might also be that their anger unconsciously dominates over other emotions, or that other emotions give rise to their anger. Pihkala (2020b), for example, points out that "anxiety often breeds anger" (p.10). Nonetheless, all research participants mentioned to experience several emotions evoked by climate change. These will be elaborated on below.

Fear

Additionally to feeling angry about the inaction of people in power, most participants also mentioned to feel scared. The members of FFFN already fear the future as a result of climate change. That despite all their efforts they are still not heard and no action is taken by the governments increases their fears. This process is also highlighted by Nairn (2019) and Pihkala (2020a), who describe how a common denial of the climate crisis and silencing of young people can increase their eco-anxiety. A general opinion of the research participants is that some kind of fear or anxiety is something that every climate activist will face, either consciously or unconsciously, because as an activist you know better than anyone what the consequences will be if nothing is done to fight climate change. They expressed their fears about not knowing what else they are capable of doing, since they feel like as a movement they are already doing everything they can for years now. Hickman et al. (2021) did research on how young people between 16 and 25 years old feel about climate change, among 10.000 young people from 10 countries. In their (preprint) paper, Hickman et al. (2021) describe how the inaction of the government, combined with not taking the fears of the young activists seriously, increases feelings of anxiety and powerlessness in these young people. They point out that climate change and the governments inadequate response to the crisis both "negatively affect mental health and wellbeing" (p.10). Some of the members of FFFN also explained to be very much aware of their climate anxiety. Nora pointed out to have nightmares about it, Sara mentioned how she does not want to think about climate change "*because I then always feel like it's already too late and it will only get worse, so yeah. I fear that climate change is basically the end of the world sometimes"* and when asking what it was that Milou is afraid of, she answered: *"well, just for the future. That everyone will die due to climate change"*. Some participants even explained how their disappointment in the government and society makes them feel depressed at times, although these feelings do not prevail (yet).

Sophie, Floris and Nora described how it is also the unpredictability of the future that scares them. Sophie for example, mentioned: *"fear, because, it sounds quite obvious, it is the unpredictability of the future. You don't know how it will influence your life"* and Nora answered: *"I have no idea what the future will look like, which is kind of scary".* She also explained how she feels that previous generations

had the privilege to plan their futures, to think about having kids for example, and make it something predictable. Following up on this, she stated to feel like she does not have the same privilege because she does not know what will happen in her future. Together with uncertainty and uncontrollability, this concept of unpredictability is one of the core characteristics of (eco)anxiety (Pihkala, 2020) and thus also recognized in the members of FFFN.

In research on emotions in social movements, fear is often described to be a deactivating emotion (Kleres and Wettergren, 2017) and anxiety is seen as an emotion that stimulates the avoidance of a problem (Stanley et al., 2021). The members of FFFN however, pointed out eco-anxiety/fear to be motivational as well as demotivational. Lucas explained that whenever he gets scared about the future and fears that climate change will change the world as we know it, he feels that: *"on the one hand that makes me more motivated to commit to preventing such a situation, but it can also really drive you in a tough spot as that it sometimes feels insurmountable"*. This is also found by Pihkala (2020b) who points out that "eco-anxiety may manifest as paralyzing symptoms, but it may also be a motivating force" (p.8). Although feelings of helplessness and powerlessness are often felt by people who experience eco-anxiety, for others eco-anxiety drives a feeling of efficacy (Pihkala, 2020a). That experiencing eco-anxiety can easily overwhelm people or that it becomes too much is supported by more participants. For example, Sara explained how she felt very anxious when she was younger, and hoped that learning more about climate change would help to combat this feeling. However, she told, knowing more about climate change only made her anxiety worse. She explained that only when this knowledge is turned into action her negative emotions are mitigated. This is also described by Kelly (2017) and Nairn (20190, who mention that doing something constructive, like participating in climate activism, helps people with their eco-anxiety. Sara mentioned eco-anxiety can thus be motivational in this case, especially when combined with positive experiences like large turn outs at actions and feelings of togetherness and solidarity with the members of FFFN. This is also found by Kleres and Wettegren (2017), who describe how fear can be motivating through its connection with hope. Connected to experiencing eco-anxiety are thus also other emotions, such as hopelessness, powerlessness and uncertainty about the future and the consequences of climate change (Hickman, 2020; Ojala, 2012; Pihkala, 2020a; 2020b), and emotions like guilt, anger and grief (Pihkala, 2020b). Besides anxiety, these emotions were indeed also present within FFFN and will be elaborated on below.

Powerlessness

Besides anger and fear, many participants mentioned to feel powerless. I found that feeling powerless or not being heard on the one hand makes the young climate activists angry at the people who have the power and are not doing anything, while on the other hand the lack of power to do something about it themselves also result in the fear that members experience. That climate activists experience emotions like disempowerment is found in other studies as well. Wahlstrohm et al. (2019) found that of their research participants during the FFF climate strike in Amsterdam, about 75% mentioned to feel somewhat, quite or very powerless. Martiskainen et al. (2020) found that feeling disempowered was the third most experienced emotion by the climate activists in their research, after feeling fearful and hopeful. Powerlessness is thus a commonly experienced emotion by climate activists.

One of my research participants, Emma, explained her rollercoaster of emotions on the basis of what she calls "an arch of realization". *"First, something affects you. For example someone who is arrested by the police, but also a scientific report. In first instance, that makes you powerless and sad and you think: why would I do it anyway?"*. After that, she explained, some time passes by in which the person experiencing the arch of realization does not feel very well. But later, Emma told, comes the realization

that it is better to do something than doing nothing. According to her, it is the love for the earth or humanity that makes people start participating in climate activism. The fact that you want to protect it, because you care about it and do not want to see it being destroyed. She ends the arch by the power this creates, *"the power of being in an action group and accomplishing something*". This is something I recognize in most of the members. This feeling of powerlessness, of not being able to do something against what they see as the biggest problem of this time and seeing how others do not react to this problem the same way they do mostly makes them sad, scared or angry. The drive to solve this problem and protect what they deem as important motivated them to start joining a climate movement, to have the feeling that they are at least doing something. Their power/strength increases when they suddenly realize they are not alone in this fight. Many interviewees described fighting for climate justice with others makes them feel stronger and powerful instead of powerless. That doing something practical or constructive with experienced negative emotions can mitigate the negative effects of these emotions is found by multiple studies (Bishop and Willis, 2014; Kleres and Wettergren, 2017; Nairn, 2019).

However, this is not the end of their emotional rollercoaster. The powerful feeling can very easily change into feeling powerless again. During their actions, the members mostly feel hopeful or powerful because they are protesting amongst many others who share their concerns. When the actions do not result in the reaction they hoped, they often feel disappointed, sad and powerless again. Anouk said: *"we are trying so hard to really say something and to be heard. Yeah, how do you say this. We try our best to take action and show that it really is a problem, but we are so little listened to that you really feel powerless as a result"*. Sara in her turn explained: *"I mostly feel powerless when I hear devastating news about what is happening around the world and especially when I hear about politicians not acting on them".* The members of FFFN thus experience their powerlessness to be both motivational and demotivational. One the one hand feeling powerless and wanting to do something about it was the reason for some members to become a climate activists, but on the other hand feeling powerless demotivates people to keep going, since they experience it to be useless at some point. Mila explained she became a climate activists to do something against her powerlessness, but learned that even in a climate movement with many other people her voice still is not heard, which makes her feel powerless again.

These feelings the participants describe are connected to/associated with feelings of eco-anxiety (Pihkala 2020a; 2020b). This is also apparent from the definition of eco-anxiety from Hickman (2020), who describes eco-anxiety as *"not just an emotional response to the facts and experience of environmental crisis and threat; it includes a relationship between these emotional responses and the cognitive knowledge that we have both caused the threat and are failing to sufficiently act to reduce it"* (p.414). Just as appears from the studies of Hickman et al. (2021), Nairn (2019) and Pihkala (2020a), the members of FFFN also mentioned the climate crisis to be human made, especially by older generation and wester societies, and that politicians fail to do anything about the crisis and their voices are not heard makes that they feel anxious and powerless.

Hope

Although almost each of the participants mentioned that they sometimes feel powerless, sad or anxious and in these moments can lose the hope that it will ever work out, most participants also mentioned that there is a lot of strength in the movement. The members described that the strength of standing together with so many people gives them hope. Especially during climate actions, marches and protests, hope is mentioned to be one of the feelings that is strongly felt by participants. This is also found by Martiskainen et al. (2020), Nairn (2019) and Ojala (2012). Martiskainen et al. (2020)

describe that their respondents state that participating in climate strikes made them feel hopeful and helped them to deal with climate change. Besides, research shows hope is seen as a strong driver of individual and collective action (Nairn, 2019). Jesse explained to often feel fearful, but that *"at the same time there is a lot of strength in the movement. People with a lot of passion, energy who want to give everything they have, just like me. Some people even more. And that strength gives hope, because there is a movement and that movement keeps growing and I am not alone in this"*.

The moral battery theory of Jasper (2011) helps to understand how this works. It is this combination of positive (hope) and negative (fear) emotions that makes the members active. If they did not fear the future or fear that what they love will be destroyed, and did not perceive climate change as a problem, there would not be a reason to become a climate activist. The same way, if they would only experience hopelessness and despair, not having any hope that the crisis can still be solved, there is also no point in participating in climate activism because all will be lost anyway. This can be seen in the statement of Sara as well, who said: *"if I would give up hope then I could just give up generally being active, and I don't want that"*. It is thus the combination, as Jasper (2011) explains, that is needed and experienced. This interaction between several emotions is also recognized in other studies about hope. Nairn (2019) found and interaction between hope and despair. Nairn (2019) explains how hope can mitigate the negative effects of despair and stimulate activism, while despair can influence false hope and prevent people from the negative effects of being too optimistic. Furthermore, Kleres and Wettergren (2017) describe an interaction between hope and fear and explain how hope can mitigate the paralyzing symptoms of fear, transforming it into an action-orientated emotions. This way, hope seems to be essential in combination with negative emotions to make them practically useful as a driving force behind climate activism (Kleres and Wettergren, 2017).

Other emotional experiences

Apart from above mentioned emotions that are strongly experienced by almost all participants, there were also some emotions mentioned by only one or a couple of participants. One of these is grief. Although only Sophie and Niels specifically mentioned grief when being asked which emotions climate change evokes for them, both mentioned that in their opinion grief is something that a lot of people experience, either consciously or unconsciously. Sophie explained how she feels like some people are in denial because they cannot understand or believe the awful things that are happening in the world. Niels also explained to feel sadness or grief when for example reading about animal extinctions or natural disasters and human suffering: *"it makes me think: who are we to do this? Who am I to be a part of this?"*. Cunsolo and Ellis (2018) found the experience of eco-grief is connected to the experience of other emotions, like anger, sadness and anxiety. Since all of these emotions were indeed experienced by the members of FFFN, these emotions might indicate that they unconsciously experience eco-grief as well.

This also accounts for the experience of feeling guilt. When guilt is repressed, it might cause experiences of anxiety, fear and depression (Turner, 2007). Although not specifically mentioned on their lists during the free-listing exercise, feeling guilty was recognized in the answers of a lot of participants later on in the interview. For example when participants mentioned not wanting to contribute to the current system, because they believe it is not fair the global North causes problems to the global South, I interpreted this as guilt. Many climate activist feel guilty about contributing to the problem by participating in the current system of capitalism and injustice and therefore mentioned system change to be very important. Kleres and Wettergren (2017) emphasize guilt to be one of the essential emotions in climate movements to drive climate actions, especially in the global South. Through social norms and moral codes in relation to the ecological crises, Neckel and Hasenfratz (2021)

explain guilt can be socially produced. This means that in the case of FFFN, the importance of climate justice and the members' social norms and moral codes around living a sustainable life and trying not to contribute to the climate crisis might trigger feelings of guilt when one does not succeed or perceives the global North, including him/herself, to be responsible for causing problems for the global South. Besides, they feel guilty because they recognize how privileged they are compared to for example MAPA: *"I think guilt is also a very big thing. It's bothering me that I am also part of the problem",* thus Amber. These feelings of guilt also indicate that climate justice is seen as highly important in the activist movement (Kleres and Wettergren, 2017). Furthermore, the ascription of guilt to for example the government or the system can transform feelings of fear into anger (Kleres and Wettergren, 2017), something that is clearly recognized within FFFN. These feelings are combined with feeling empathy and solidarity to the less privileged, as expressed by many members.

While the emotions described above where all mentioned during the free-listing exercise when I asked interviewees which emotions climate change evokes for them, it often occurred that the interviewees described feelings they experience as a result of climate change that they did not list earlier when specifically being asked about it. This mostly applies to anxiety, responsibility and guilt. Niels for example, who did not mention fear or grief during the free listing exercise, answered when being asked whether he experiences eco-anxiety: "*yeah, I would say so. What I experience is what I described before, you know, moments of hopelessness or when thinking about my future, having fear or having grief*". The same accounts for example for Lucas, who did not state fear or anxiety during the free-listing exercise but later stated: *"in the end if we talk about climate change and its consequences, it is about my future, the future of my friends and family and that is sometimes frightening. That the world as we know it and we have known it in the past wont be there anymore if it goes on like this"*. Although for some people these emotions thus immediately come to mind when being asked about climate change, for others it might be less obvious that they do experience these emotions as well, therefore only mentioning it later on in the interview.

Furthermore, the members strongly feel like doing something is better than doing nothing. Jesse said: *"how stupid as it can be sometimes, I have to keep going because there is no other option".* When I asked Sara why doing nothing was not an option for her, she answered: "*because then I feel that I'm definitely part of the problem, which I am. I mean, basically every human is part of the problem, but I feel when I do something at least, I'm not as much worsening the problem as it is"*. This indicates that she, just as many others, also feels guilt and responsibility. Besides, participants indicated that participating in climate activism makes them feel despondent or hopeless at times, when nothing is being done or they face criticism from outsiders during their actions. Although most participants mentioned not to be bothered by criticism from outsiders too much, others mentioned these comments to be very demotivational. Nora notes: "*when people kind of laugh at the movement it really demotivates me, because they do not realize we are not just doing it for ourselves, we are trying to help them too and they just make fun of it".* While I was joining a silent march in Zwolle together with about 10 others, I experienced this negative criticism of outsiders myself: *"carrying my sunflower through the streets of Zwolle and trying to dwell on what we have lost as a result of climate change, I notice a lot of people pointing and laughing at us. Suddenly I feel someone tapping on my shoulder. When I turn around, a man mockingly asks me whether we are also planning to blow ourselves up on the Dam for our so called good cause. Stunned, confused and in disbelief, I pretend I did not hear him and keep silently walking through the streets of Zwolle, carrying my sunflower a little less proudly then before*" *(see fieldnotes B. Silent march Zwolle)*. For me, this was a shocking experience and it made me realize I would be inclined to stop taking action when I would have to deal with these comments on regular basis. The members of FFFN explained to perceive negative criticism more often during small scale

local actions than on bigger national events, which is one of the reasons why national actions are experienced as more powerful. Especially when people criticize something the members have put a lot of time and effort in, this criticism is experienced as demotivational.

Living privileged lives

Despite their feelings like fear, sadness and grief, almost all participants mentioned not to feel personally affected by climate change at the moment, at least not physically. However, they also mentioned to do notice the consequences of it already. Most participants mentioned to feel privileged by their living situation, and therefore do not feel affected by climate change (yet). Still, the members do expect to have to face the consequences of climate change in the future much more, even in the Netherlands, but emphasize they will not be harmed as much as the MAPA. Mila mentioned to notice changes in the weather, but stated: *"personally I have the attitude like: being the Netherlands, we will figure it out"* and emphasized to be more concerned about developing countries, who do not have the same privileges. This is also reflected in the answers of others, like Julia who stated: *"I think I can be grateful for the degree in which I am affected by it. Yes, we are not allowed to use plastic straws anymore and you notice that the weather is changing, but I think that in the Netherlands we should be very grateful that we do not have to deal with enormous forest fires or lands that become dryer and dryer until you cannot farm it anymore, like in Africa"*.

I also interviewed some international students. Being from other countries, they already had experience with consequences like forest fires or extreme hurricanes. Nora for example, mentioned about being in the Netherlands: *"Physically I don't feel affected here. Although, if I were to be back home right now with flooding and stuff I would physically feel it a lot more"*. Although already noticing the consequences of climate change, even floods and forest fires close to home, they still explained to feel privileged by their living situation. Some people did mention to feel emotionally affected by climate change. It affects their moods and thoughts. Niels mentioned that it also affects his future plans, like his choice of studies.

Lastly, there were some participants who said that they do feel personally affected by climate change, although their focus is on the future. On the question whether the participant felt like she was being affected by climate change, Anouk answered to believe that she will be affected in the future when the Netherlands will flood as a result of climate change, and Amber answered: *"I think so. There has been research that people who are being born now will experience things more often. However, I do not think it is comparable to people in MAPA countries"*. Although feeling privileged, the members of FFFN thus fear that one day they will also have to face the consequences of climate change.

6.2.3. Emotions experienced as a climate activist

Actions are by far the most mentioned motivational moments by the members of FFFN. Participating in these actions is connected to a lot of emotions and energy. During the actions, participants mentioned to mostly feel very powerful, hopeful happy, and energetic. That actions give rise to feelings of hope, pride, enthusiasm and togetherness was also found by Martiskainen et al. (2020), Nairn (2019) and Ojala (2012). These emotions differ from the (mostly negative) emotions evoked by climate change, and are more a result of trying to do something about their negative feelings by becoming a climate activist in FFFN. Which emotions the members experience during their actions differs between local actions or national actions. Compared to the bigger national events, during local actions members more often mentioned to also feel somewhat more ashamed or insecure because they are with a way smaller group. The members thus especially emphasized the amount of people present during protests to be of influence on the motivation of the participants. This is important, since Bishop and Willis (2014) found a connection between hope and resilience, explaining that hope has the capability to

alleviate the negative effects of negative emotions. As the members stated actions with big turnouts raise more hope, this could thus make the activists more resilient and stimulate them to keep going.

After the action has taken place, the participants either keep feeling enthusiastic, happy and motivated, or start feeling angry, disappointed, sad or even hopeless. An example that was mentioned by multiple participants was that after the action in Utrecht of September 2021, media/newspapers wrote that there were only about 100-200 people, while there were actually 3500 people participated in the march. The members explained this to happen more often, which makes them feel bad, despondent and hopeless, thinking: what are we doing it for? One of the participants got very emotional when telling this, explaining how she feels that no matter what they do, there is no reaction from politicians and now not even the media anymore. Giving a representative answer for most participants, Lucas said: "*sometimes it is the feeling of: yes, we stood there, but do we actually achieve something with it? It all sucks. However, sometimes it is more like: holy shit, that was amazing and I cannot wait till the next time! And sometimes it is somewhere in between, it switches a lot I think"*.

All these emotions can easily become overwhelming. Some members indicated that they are familiar with people feeling burned out in FFFN. One of the participants explained to personally know people who had been very passionate climate activists, but at one point cut all their ties with activism because their passion and involvement became too much. The participants familiar with burn-outs emphasized to believe that especially because they are a youth climate movement, burn outs occur more often. Niels stated: *"I think you'll find many, especially in the climate movement or young movement, you'll find many people that are very passionate about something and then it's easy to burn out if you don't look after yourself*". The study of Nairn (2019) confirms that especially climate activists have a greater chance of burning out, and Kelly (2017) points out that feeling overwhelmed or burned is common for climate activists since climate activists are most aware of what is going on and what is at stake. Vera explained it frequently happens that people mention they step back from activism, at least for a while. Jesse mentioned that *"first, when you don't know that much about the topic, you think: oh, we can fix this with humanity because we are that strong. But when you go demonstrating and so on, you find out how messed up this system really is. Somewhere you lose the hope while you are trying to keep it"*. Contrarily, one of the international students mentioned that here, in FFFN, people are not so burned out yet. Nora explained she thinks that because people here are not that personally affected and do not have so much experience with the consequences of climate change, *"people are not so burned out here yet. Which is good, because we need new activists all the time when people do burn-out to like step in so that people can recharge, you know"*.

What I notice from their stories is that it are the most passionate people who spend so much time and put so much effort in climate activism who at some point feel burned out. Not only because they are doing too much, but also because they are disappointed or lose the hope that they can actually achieve something. Julia: "*It are often the really young people, so younger than I am, they are mostly 13 or 14 or something. They can become really sad about it, how hard they are trying and how little it matters*". This was also found by Nairn (2019), and Pihkala (2020b) states that since the problem of climate change is so huge, it might be impossible for people to get closure and "there may be manic or hyper-vigilant efforts to make a difference and repress anxiety by constant activity" (p.16). The members of FFFN emphasized to have to stay positive, otherwise they would fall apart. This shows the relevance of the moral battery theory of Jasper (2014). When losing hope or when negative emotions prevail over positive emotions, one pole of the battery diminishes. This way, the emotions cannot interact and strengthen each other: the battery does not work anymore. Staying positive and hopeful, keeping this the positive pole in the moral battery, is thus very import in members' motivation to stay active and committed (Bishop and Willis, 2014; Ojala, 2012; Van Ness and Summers-Effler, 2018).

Either way, each climate activists experience several emotions as motivational or demotivational, and for many participants their emotions stimulated them to become active. Indeed, Turner (2007) also states that emotions are essential in the commitment of joining a social movement. The members for example learned about the climate crisis in school or heard about forest fires on the news, which made them feel sad, angry, anxious, powerless or a combination of those feelings. Vera mentioned that news about climate change made her sad and she cried about it a lot. She felt powerless, and joined a climate movement because she wanted to do something about it, jut like Emma and Mila. Furthermore, participants joint a climate movement out of guilt about the injustice of the global North causing problems for the global South, and guilt about their privileged life compared to others. Lucas explained that within FFFN it differs per person which emotions are perceived as motivational or demotivational. It can be concluded that the participants wanted to turn their negative emotions into something productive, this way contributing to solving the problem instead of making it worse. In the end, they all care about it in their own way. As Julia pointed out: *"the fact that it moves me so much is actually the strength to keep going. If I wouldn't care about reading such things on the news or something, then I would say climate activism isn't of use"*.

6.2.4. Conclusion

FFF is a climate justice movement, seeing intersectional activism as the best way to achieve their goal of climate justice. The members of FFFN find system change very important, since capitalism is seen as one of the causes of the climate crisis. In their opinion, mostly the government and big polluters should take responsibility and initiate action to limit global warming. Although most members do not feel personally affected by climate change (yet) and emphasize how they are privileged compared to MAPA, they do experience a lot of emotions due to climate change. The most prevailing ones are anger, fear, hope, sadness and powerlessness. As a climate activist, they furthermore experience feelings of togetherness, pride and solidarity. FFFN members care about climate change, the planet and their futures in their own way. If they did not perceive climate change as an emergency they would not have become a climate activist.

6.3. Collective emotions

In this chapter I will discuss emotions that are collectively experienced by the members of FFFN. The difference with individual emotions is that the collective emotions are joint emotions that people experience together (Fischer et al., 2009). They are experienced and realized by multiple participants (Kruger, 2015). On the basis of the theory of Jasper (2011), I divided these collective emotions in reciprocal emotions and shared emotion. Both will be explained in the following section, as well as if and how the members communicate about the emotions they experience as a climate activist and how it motivates them to know that others feel the same way. In this chapter is shown that the members experience positive reciprocal emotions, describing their fellow members as good friends. Together, they share an anger and powerlessness as a result of the inaction of the government, while still being hopeful positive changes can be made. Their shared emotions are experienced as motivational, especially because being a member of FFFN made them feel like they are not alone in the fight against climate change. The results of the chapter help to understand how emotions are collectively shared among young climate activists in social movements and helps to answer the third and fourth research question.

6.3.1. Reciprocal emotions

Friendship, pride, togetherness and community feeling. These are the emotions members describe to feel about each other and FFFN. These are reciprocal emotions: emotions that the members of a movement feel for each other (Jasper, 2011; 2014a; 2014b). I looked into the reciprocal emotions that members feel towards other members or their local group, and the reciprocal emotions the members feel towards FFFN as a whole.

Individual relationships

What stands out when talking to the participants about how they feel about their fellow members is that they unanimously express they have made good friends within the movement. Especially regarding their own local groups, regardless of which local group is spoken about, they all feel like they have made good friends at FFFN*: "what I personally find impressive is how we became a really close group of friends of people who in first instance did not even know each other"*, thus Sophie. Emma explained how as a climate activist you have to make sacrifices because you cannot combine a busy social life outside of FFFN with activism. As a result, people thus become good friends within FFFN. Furthermore, members mentioned that since they are all young and fighting for the same cause, it is easier to make friends, especially because they can also support each other when facing the same climate related problems or concerns. Mila: *"it's really nice and you get to know a lot people you didn't know before, and they are all the same age as you are and you have one thing in common which makes it really easy to become friends"*. This thing that they have in common that Mila refers to, is their concern about climate change and the future, and their goal to reach climate justice. This shows how shared underlying concerns can influence which emotions are experienced (Salmela and Nagatsu), and shared goals can stimulate collective action (Jasper, 2011; Fritsche and Masson, 2021).

The participants from diverse local groups explained that because they see or speak less to other groups/the national group, the relation with people outside their own group feels more like a professional or business relationship. Although they still mentioned to find everyone very nice and friendly, it is less described as friendship. Julia: *"nationally you notice everything is organized more professionally. You also notice it in the communication, that is often more formal. But I do not mind this at all, I think it somewhere makes sense. At some point, you have to stop joking around and make real progress"*. Still, Mila did mention that the national group tries to make sure that its members become friends with each other to strengthen the feeling that they are not alone in this fight, so that

they can carry the burden of the climate crisis together. This is very important, since Nairn (2019) found that when young activists view climate change as a collective problem and share responsibility, this can prevent these young people from burning out.

The participants also explained that a certain bond between members, including the members in other countries, is experienced. Through FFF, these members emphasized to feel connected with people, even to ones they do not know. Sophie mentioned*: "Yes, there is some sort of invisible bond between everyone. You don't know each other, but you know that you care about each other"*. The members are proud of each other, proud to be a part of their group and proud of what they already can accomplish at such a young age. These positive views and emotions are important, since they can "form patterns of trust and attraction that can channel protest activity" (Jasper, 2014b, p. 350). Emma even mentioned reciprocal emotions to be a stimulus to keep participating in climate activism. She explains how wanting to see her friends in FFFN also motivated her to take part in actions and meetings. Reciprocal emotions can thus form the basis of trust, loyalty and success of a movement.

However, some mixed feelings are sometimes experienced due to the age difference and the discussion about whether students should remain part of FFFN or not. This has resulted in some older students feelings abandoned or hurt by the younger members. Sophie expressed that especially if everything is communicated in Dutch, while some members are international students, it is more difficult for these members to feel welcome or part of the movement. On a national level, they thus sometimes feel hurt and not appreciated, while the members also emphasize that on a local level they have made friends for life. Besides, Emma mentioned to sometimes have the feeling to be the only one that takes initiative. Although they are with a bigger group, she explained, others tend to have a see-and wait attitude. Herewith, she mostly refers to the high school students and not that much to the graduate students. This thus might indicate the benefits of staying one movement, instead of splitting up in FFF and SFF. It is important to pay attention to these mixed feelings, as positive reciprocal emotions have the power to keep the movement going, while negative emotions are able to disintegrate the movement (Jasper, 2014a; 2014b). It is clear however, that positive reciprocal emotions have the ascendancy over negative experiences.

Feelings about the movement

When asked how the participants feel about FFFN as a whole, the answers were all positive. The members describe FFFN to be a warm movement where everyone is welcome and where everyone respects each other. They perceive FFFN as a group of young passionate energetic people who stand together for the same cause. The participants especially emphasized how they feel stronger together, not having to fight climate change alone (anymore). They describe FFFN as something they feel part of. It gives the members a feeling of belonging, of being one community. This again relates to the findings of Nairn (2019), who points out that sharing the burden of climate change and being part of a community that also cares about climate change was found to generate hope an motivate people to stay active. Most members feel proud of the movement and Ruben even mentioned to feel honoured to be a part of it. Lucas described how FFF helped him on a more personal level: *"it is something that I can be part of and involved in, where I can be with people and where I can actually feel important. I think other people experience that as well, and that just everyone is there for each other"*. Besides how the members feel about each other, their reciprocal emotions about the movement are also important, as they can keep activists motivated and involved in the movement (Jasper, 2011).

Although some graduate students do not feel part of FFFN anymore, they do still feel part of FFF in general, on international level. Towards FFF they experience feelings of togetherness and solidarity, which relates to the invisible bond between people other participants spoke about as well. Overall, the

members' reciprocal emotions and feelings of togetherness show how they identify with one another, viewing themselves as being part of one group, one community. Identifying oneself as "*one of us*" is one of the requirements Leon et al. (2019, p.4861) describe as essential to be able to experiences shared emotions. These shared emotions can strengthen their reciprocal emotions (Jasper, 2011) and will be addressed in the next section.

6.3.2. Shared emotions

Anger, fear and hope are the most prevailing shared emotions within FFFN. Although these were also the most prevailing individual emotions, shared emotions are collective emotions and are thus emotions that are experienced and realized when being together with other people (Fisher et al., 2017; Kruger, 2015). Shared emotions are experienced as "*ours*", and thus identification with the others and awareness that other people share the same emotions is required (Leon et al., 2019, p.4860), which is not the case for the individual emotions. I divided the shared emotions in several categories, partly based on Jasper (2014b). I elaborate on the emotions members share as a result of the actions of others, their shared feelings as a result of the actions they organize themselves, feelings that emerge due to the members long term commitment to the movement and which of these shared emotions the members see as the incentive of the movement.

Climate crisis and inadequate governmental response: a worldwide problem

With regard to the government, the dominating shared emotion is anger. This is reflected in the members' individual emotions as well. They explain to share their anger about not being understood, nor being heard. The members experience anger as a result of the injustice of the situation, a problem that is caused by previous generations and not handled by the people in power, causing young people and the MAPA to be most affected. This anger also increases with every setback. Some participants mentioned the COP26 as an example: a collective disbelief and anger emerged as a result of the inaction of governments. The activists cannot believe that despite all their efforts of the last couple of years, still nothing really changed and too little is being done. When asking where their anger came from, Vera replied: *"from that it is a problem that is neglected by a lot of people and is caused by the generation before us, while we have to deal with it right now even though we are only 14 years old"*. Van Ness & Summers-Effler (2018) state the importance of having a shared target that can be blamed, as this helps to transform negative emotions in a "more constructive and targeted outlet for anger" (p.417). That the members share their underlying concerns about climate change and the future increases the degree to which they share emotions (Salmela and Nagatsu, 2017), in this case their anger. Additional to the anger is a feeling of powerlessness as a result on the inaction of people in power: *"you notice a lot of disappointment in the government and certain promises that were made but not kept. Therewith you notice a kind of despondency*", thus Julia. It is mostly this anger and powerless that, especially because of their young ages, is said to prevail in FFFN. Although also experienced individually, it is thus commonly shared. These shared emotions can also strengthen the reciprocal emotions, like respect, pride and loyalty, that members feel for each other when knowing others feel the same way (Jasper, 2011; Jasper, 2014a).

The shared emotions regarding the environment and the climate crisis are mostly fear, sadness, guilt and grief. The perceptions on this are diverse, although mostly fear and sadness were mentioned. Neckel and Hasenfratz (2021) mention that anxiety and fear are widely experienced emotions in climate movements, and the results of Hickman et al. (2021) show how widely anxiety is actually shared. Hickman et al. (2021) found that among the 10.000 young people from 10 different countries that participated in their research, 59% was very or extreme worried about climate change. The authors therefore emphasize that the young people's experience with eco-anxiety as a results of both

the climate crisis and inadequate governmental response is a worldwide problem that threatens young people's mental health. Furthermore, Emma explained there to be a lot of sadness in the movement. Not only as a result of what is done to nature, but also again as a result of the inaction of others. In this case, the diverse emotions that individuals experiences are less obviously shared than their anger. A reason for this might be that those feelings (fear, sadness, guilt and grief) are experienced more internally and chosen to share less with others (Kleres and Wettergren, 2017). It might be easier to deal with anger when there is a shared victim to blame.

Emotions evoked by participating in climate actions

As mentioned in the previous chapter, the members experience their own actions to be very motivational. The research participants described that participating in their actions gives rise to feelings of pride, hope and togetherness. About the national strike in Amsterdam with 40.000 participants, Lucas said: *"it gives such a great feeling to be there with so many people shouting the same chants and broadly express the same opinion"*. The members of FFFN unanimously feel these big events are most effective and therefore generate more power and hope, which relates to the group efficacy that is found to be an important motivator for activism (Miller et al., 2009). For these members, seeing that many other people care about climate change and are willing to fight with them gives them hope. These results are also in line with the study of Bishop and Willis (2014), who describe hope to be socially constructed. Additionally, the members stated to experience solidarity and a community feeling when protesting together, and emphasize how this motivates them.

Furthermore, participants mentioned to experience a lot of anger during protests. They clarified that besides feeling happy and enthusiastic during protests, those actions are also seen as an outlet for their anger. When being together, they explained, the participants can yell and shout and be angry about the situation, about the government's inaction and about the experienced youth oppression. Emma even mentioned to believe that it are the protests where people are angry or frustrated that are most powerful. According to Jasper (2014b), the emotions people share during their own actions are easily transferred through, among others, facial expressions, since we tend to feel the emotions associated with peoples expression. Kruger (2015) explains this as well, stating that "an emotion can be shared expressively via facial expressions, gestures, or verbal reports" (p.345). During the national actions I joined, I experienced this myself. The shouts that are yelled by the activists in combination with the texts on their cardboard signs and their facial expressions clearly show their anger. As a result, I found myself shouting along with their chants and to some extend became angry about the situation and inaction of the government myself. Mila mentioned how contradictory emotions can be felt during protests. She explained how she finds marches to be motivating, but at the same time people *get "sad, frustrated, despondent"* because they do not understand how it is possible that despite all their efforts and big turnouts they are still not heard. Furthermore, participants clarified it also depends on which chants are shouted. These chants can determine the ambiance of protests and increase the community feeling the members experience. About singing/shouting chants together, Sara said: *"and with that I think you create a collaborative feeling of community and of active engagement or, yeah, protest and motivation. And it always depends of course on what you shout. So sometimes maybe the chant is more angry and then everyone is a bit angry, or in another way you maybe sing a song and it's more hopeful".* Either way, the members share a feeling of pride about their actions: *"especially for example such an action as in Utrecht with 3500 people. Then you look around and think: holy shit, we did actually arrange all of this",* thus Jesse.

One movement, one community

Emotions are also shared due to long term commitment to the movement (Jasper, 2011). The most prevailing result of long term commitment is a community feeling. This was also indicated by the strong positive reciprocal emotions the members experience. The members feel connected, part of the group and describe to have made good friends. Not only nationally, but also internationally they feel like one community of climate activists to which they belong. Jesse: *"it is certainly the case that I feel part of the group, so feeling connected. And not just with Fridays For Future, but also with all the other movements where I get in touch with people"*. The members support each other, what helps them to have confidence in that they will not have to fight the crisis alone: *"you feel that the burden/suffering does not only rest on your shoulders anymore, but on many more shoulders. It feels very binding, that together you stand for one goal",* thus Mila. They experience feelings of togetherness, which increases people's power and hope. Jesse: *"that strength gives hope, because there is a whole movement and that movement keeps growing and at least I don't have to do it alone"*. These findings, that participating in collective climate action and seeing climate change as a collective problem and responsibility creates hope, is also found by Nairn (2019). Furthermore, Kleres and Wettergren (2017) clarify that the hope that is created through collective action can stimulate people to continue with activism. The positive shared and reciprocal emotions are therefore important to keep activists motivated. After their initial reason to become climate activists, members mentioned hope combined with the strength they gain from protesting together and their positive reciprocal emotions, like friendship and community feeling, to be incentives to stay involved in FFFN. Especially hope for a better future is pointed out by other studies to be essential in keeping activists involved in and committed to a climate movement (Bishop and Willis, 2014; Ojala, 2012; Van Ness and Summers-Effler, 2018).

This long term commitment thus raises hope, but also despair. While on the one hand people mentioned there to be a lot of hope within the movement, others mentioned to feel hopeless because they do not know what else they can do. Julia mentioned to notice that some people are very pessimistic, not believing changes will be actually made. If after a long period of commitment to the movement and participating in climate action no progress is made, it can be connected to the burn-outs some members recognize. When feelings of despair/hopelessness dominate, people lose the motivation to stay active. It is important to pay attention to the development of collective emotions participants experience as a result of collective actions, since collective emotions might be capable of mitigating these negative emotions (Kleres and Wettergren, 2017; Martiskainen et al., 2020; Nairn, 2019).

Emotions as the driving force behind FFFN

Anger is mainly mentioned to be the driver of FFFN. Sophie stated: *"we are very angry. We are not understood"*. The members of FFFN do not feel respected nor taken seriously, which fuels their anger. This anger is connected to many other feelings, like powerlessness, frustration, and anxiety. Sara described how it is not only their voices and opinions that are not heard, but also their feelings of eco-anxiety and fear about the future that is not taken seriously by the people in power, which makes them even more angry. Many members emphasize how their young ages also relate to their anger as an incentive: "*we can't vote, so we'll just have to protest and then people won't listen to that either. So I think that among Fridays For Future, anger is the main driver",* thus Mila.

Fear and hope are also often mentioned to be incentives of the movement. Although all members recognize feeling angry, some emphasized to believe hope to be the prevailing emotion in the movement. These members have confidence in that the movement will succeed. Amber explained how FFFN differs from Extinction Rebellion (XR) in how they look at the climate crisis and in how they

mobilize people: *"XR has the idea that it is almost too late, or that it is already too late. That is definitely not how we look at it. We believe that it can still be changed, and we still have hope"*. She clarified how what XR does is called "doomism", and how she believes this to be demotivating for many people. The study of Buzogány and Scherhaufer (2022) confirms this distinction, explaining it is also visible in the way the movements frame climate justice or try to mobilize people. Where FFF has an apocalyptic approach and thus still has hope and believes that change is possible, XR has a post-apocalyptic approach (Buzogány and Scherhaufer, 2022). According to multiple FFFN members, there is no reason to be an activist if you already believe all hope for change is lost. Fear or eco-anxiety is however generally mentioned to be a stimulus within the movement. On the question what she perceives as the driving force behind the movement, Milou answered: "*yes, I think indeed mostly fear about the future. Fridays For Future are all young people, so it is about their future".* In combination with hope, their fear is rather seen as motivating than demotivating. This again also relates to the moral battery theory of Jasper (2011).

It makes sense that the emotions experienced to be the incentive of the movement are also emotions that are collectively experienced as being motivational. These are thus mostly anger, hope and eco-anxiety. Still, multiple participants pointed out how it differs per person what is experienced as motivational. Each eco-emotion can be a stimulus that drives people to participate in climate action (Kelly, 2017). Floris explained how these emotions are needed to do something, recognizing that if he would not consider climate change to be a problem or be scared or angry about it he would not have participated in climate action. Furthermore, I found that also for the members of FFFN it is mostly the combination between different emotions which makes it powerful. Solemnly experiencing negative emotions, like guilt, grief or eco-anxiety, is found to be demotivational. However, when combined with hope or feelings of togetherness and community feeling, they strengthen each other and create powerful emotions that stimulate climate activism (Jasper, 2011; Kleres and Wettergren, 2017).

6.3.3. Sharing the burden of climate change

Within FFFN, a lot of attention is paid to the emotions the members experience. Especially during local meetings, the members mention to pay attention to how everyone is doing. Participants from Roermond, Leeuwarden, Arnhem/Nijmegen, Eindhoven and Maastricht all explained that they start their meetings with some kind of check-in and check-out to give people the possibility to vent and talk about how they feel or what bothers them. Jesse and Floris pointed out that this is not only done locally, but also nationally. According to Emma, it does differ per group how much is spoken about feelings and emotions. She mentioned how in some groups there are older members who think it is a taboo to talk about emotions, clarifying how young people are the movement's target group and how people their age do not like to talk about emotions.

Sophie said that on national level more people should communicate about their emotions. In her opinion, national meetings are "always very businesslike". In FFFN they usually try to separate fun related meetings or activities ("*gezelligheid*") from usual meetings in which they have to do something. Therefore, they have different WhatsApp groups. There are information channels, which are described as quite neutral. In these groups information about upcoming actions is provided. Besides, they have chats that are mend to chat with each other or to provide nice reading suggestions and stuff ("*gezelligheidsapp*"). Multiple people affirmed it is during this fun time that they speak about how they feel. The other meetings or activities are then more mend for real climate action and thus more business-like. As Amber said: *"At Fridays For Future its just like…we are all young. And sometimes we do fun stuff and sometimes we save the world"*.

The research participants explained that the positive reciprocal emotions they feel towards each other makes it easier for them to talk about how they feel. They trust and support each other. Some participants described how they take care of each other, for example by making sure that someone is not doing too much on its own. Mila emphasizes the importance of sharing how you feel, and recognizing that others share the same feelings. Most members share the opinion that talking with others about your feelings helps to trust that you are not alone and that the members will carry the burden together, as also found by Nairn (2019) and Ojala (2012). When the members feel demotivated, it helps them to know that they are part of something bigger. Floris said: "*if I were to do this on my own then it probably would not be very effective, but because we are a whole movement, that gives me more hope that we can really make a difference*". The participants mentioned that feelings of togetherness and belonging, knowing that they will not have to face the crisis alone and can fight alongside many others who experience the same feelings helps them to stay involved as a climate activists. The members emphasized how they support each other and how their friendship helps to combat the negative emotions they all experience sometimes. This way, Sara explained, all members try to lift each other up, making sure the spirit of the movement does not die and the members are not pulling themselves down. As Julia said: "*knowing that you are part of a group where you can share those kind of fears and anger and that there are people who probably share the same feelings, that really helps with not being too pessimistic, like thinking it is useless and we will all die in 20 years*".

6.3.4. Conclusion

The members describe FFFN to be a warm movement where everyone is welcome and where everyone respects each other. Through the movement the members feel connected. They strongly believe that they are strongest when together, which increases their hope and motivation. The members see each other as friends and are proud of each other and the movement. Besides their positive reciprocal emotions, they strongly share emotions of anger and powerlessness about the inaction of people in power, but as a movement they emphasize to still be hopeful. These emotions are also seen as the strongest incentives of FFFN, although members pointed out different emotions are experienced as motivational for different people. Within FFFN, they do communicate with each other how they feel, especially during their meetings. This sharing of their emotions and experiences is said to be motivational and supportive. For the members, recognizing that others feel the same way and their community feeling gives them the confidence and hope that they do not have to face the crisis alone, but are powerful enough to make changes when fighting together.

7. Discussion

My results show how emotions are of importance to the members of FFFN. Emotions are seen as incentives to become active and to stay committed to climate activism, especially through the interaction between positive and negative emotions. In the discussion, I will elaborate on my findings and discuss them in a wider scientific debate. Furthermore, I will reflect on my methodology, describe the societal and scientific relevance of the study and give some recommendations for future research.

7.1. Discussion results in wider scientific debate

Emotions in climate movements

Kleres and Wettergren (2017) mention that fear, hope, anger and guilt are seen as essential emotions in climate movements. Although all of these emotions were recognized in FFFN, my results point out anger and fear to be the emotions that are most experienced as a result of climate change. Starting with fear, some members explained how every climate activist consciously or unconsciously will experience eco-anxiety at some point, since being a climate activist makes that they know best what the consequences will be if the climate crisis will not be stopped. It is the unpredictability of the future that scares them, one of the characteristics of eco-anxiety (Pihkala, 2020a). That this can result in people feeling overwhelmed or burned out is also found by Kelly (2017). Some members of FFFN experience eco-anxiety to such an extent that they have nightmares about it and fear that everyone will die as a result of climate change. What becomes clear from the results is that not being heard is a big stumbling block for the young climate activists. This raises emotions like anger, powerlessness and eco-anxiety. Anger is expressed to the people in power who do not take action and ignore the voices of the young climate activists. Powerlessness is felt as a result of the inaction of others, despite all the effort the climate activists put in taking action. As a result, their fears about the future increase, because they do not see what else they can do to protect the future. This problem, which Norgaard describes as a "socially constructed silence" (Norgaard, 2011 as cited in Pihkala, 2020a, p.5), was found in multiple studies: if the majority of the population ignores the voices of the climate activists and these young people feel youth oppression is taking place, this can increase their feelings of eco-anxiety (Nairn, 2019; Hickmann, 2020; Norgaard, 2011 as cited in Pihkala, 2020a). As a result of not being heard and the continuous inaction of the government, activists did mention to feel fearful, powerless, sometimes even hopeless or experiencing burn-outs, as found by Nairn (2019) as well. This is also recognized in the members of FFFN, and therefore this study adds to the understanding of how important it is to acknowledge the emotions young people feel as a result of climate change.

Besides fear, another emotion that should be acknowledged and is described by the (high school) member of FFFN to be the most expressed, felt and shared emotion, is anger. Anger is indeed seen as an action-orientated emotion (Lazarus, 1999) and stimulus for collective action. However, Kleres and Wettergren (2017) mention how anger is usually avoided by activists, especially when trying to mobilize people. In combination with fear and guilt, anger is more often experienced as motivational in the global South than in the global North. According to Kleres and Wettergren (2017), fear and hope were more often the motivational emotions in the global North. Although hope and fear were indeed present, anger and guilt were present in FFFN as well and both were found to be motivational. In FFFN, the combination between hope and anger prevails and is also used to mobilize people. A reason for this might be the movement's focus on climate justice and the solidarity the members of FFFN feel towards MAPA. The awareness of FFFN about their privileged lives and the contribution of the global North to the problems of the global South makes them feel guilty and angry, just like the global South feels angry and uses the ascription of guilt as their motivation (Kleres and Wettergren, 2017).

Furthermore, this study shows how for FFFN the importance of climate justice and intersectionality adds to its members community feeling and solidarity. Whereas Miller et al. (2009) mention how "according to relative deprivation theory, people who perceive their group to be relatively deprived in comparison to other groups are likely to feel resentful or angry about the injustices encountered by the ingroup" (p.446), the members of FFFN emphasize how they feel privileged compared to for example MAPA. When seeing FFFN as the ingroup, their anger about injustice regards the injustice of others, not the 'ingroup'. However, the theory of Miller et al. (2009) does hold when keeping in mind FFF's focus on climate justice and intersectionality. Therefore, the members of FFFN probably perceive their 'ingroup' as much bigger than solemnly the members that are active in the Netherlands, and include other FFF members and MAPA in their ingroup as well. This study therefore adds to the theory of Kleres and Wettergren (2017), as it helps to understand that emotions, like anger and the ascription of guilt (Kleres and Wettergren, 2017), are thus also motivational for members of climate justice movements in the global North and can be used to mobilize people.

Miller et al., (2009) did research on both fear and anger, and found that fear supressed the ability of anger to act against experienced injustice. However, my results show it is especially the anger about the injustice of the consequences of climate change that motivates the young people to act. With regard to the results of Miller et al. (2009), I believe there to be different forms of fear. Miller et al. (2009) give an example about injustice in the workplace in which the fear to get fired suppresses the anger and willingness to act. However, in the case of FFFN their fears about the future, their eco-anxiety, can actually be seen as a motivation to act in order to prevent the situation from happening. The difference between these situations is that in the workplace scenario, acting upon the experienced anger might cause problems (getting fired), while in the case of FFFN, **not** acting upon the injustices causes problems (increased consequences of climate change). In the case of FFFN, fear does not suppress anger. It is more likely that this fear of their future and the consequences of climate change adds to their anger about inaction of others to prevent the situation. Although in literature about social movements fear is often said to inhibit collective action (Kleres and Wettergren, 2017), my data shows it can also be a motivating emotion. Fear, or other negative emotions like powerlessness, are especially found to be a stimulus when starting with climate activism. Stanley et al. (2021) also point out that feeling depressed, associated with feelings of anxiety, anger, guilt and sadness (Lazarus, 1999), might stimulate people to participate in collective climate action. It is important to recognize that for the purpose of this research I did not make a distinction between feelings of fear and feelings of eco-anxiety. Treating these as similar might have affected the results. For future research about the emotions in climate justice movements, it might be interesting to look whether young climate activists do experience fear about their futures and eco-anxiety as something different, and whether this will lead to different findings.

Besides fear, anger and guilt, other emotions were experienced by the members of FFFN as well. One of these was ecological grief. Cunsolo and Ellis (2018) found that the experience of ecological grief as a result of physical losses caused by climate change "was often accompanied by strong emotional reactions, such as anger, sadness, frustration, anxiety, distress, hopelessness, depression and despair" (p.277). Although the experience of grief was not mentioned by many participants, symbolic actions like the silent march held by FFF Zwolle and FFF Arnhem/Nijmegen made clear that it is experienced by multiple members. Still, the emotions Cunsolo and Ellis describe to accompany this grief were mentioned more often. It might be that indeed many people experience this form of grief over physical or future losses, but experience other emotions more strongly, overshadowing their grief. Another reason might be that emotions like grief or guilt are chosen to show less to others, keeping them internal emotions (Kleres and Wettergren, 2017). Neckel and Hasenfratz (2021) mention how grief can

be experienced as an activating as well as deactivating emotion. However, since it was not addressed during this research that much, no conclusion can be drawn from the data on whether it is perceived as a motivational emotion.

The interaction of emotions

The concept of moral batteries (Jasper, 2011) helps to understand the combination of emotions the members of FFFN experience. The experience of both positive and negative emotions working together was recognized within FFFN. The members of FFFN explain negative emotions to be needed to perceive climate change as an emergency and to act upon it. Simultaneously, it was found that without the positive reinforcement, people saw no point in participating in climate activism anymore, since all would be lost anyway. Within FFFN, hope is thus strongly present and experienced, reinforced by their positive reciprocal emotions of togetherness, solidarity and friendship.

Although feeling depressed was not mentioned often by research participants, other discouraging emotions (like hopelessness and despondence) were mentioned by multiple participants. Eventually, these discouraging emotions can lead to people feeling depressed (Lazarus, 1999). Whereas sadness and powerlessness were mentioned to be motivational as well as demotivational, the discouraging emotions were mentioned to be demotivational in all cases, which again emphasizes the importance of hope for the members. Participants described how without hope, climate activism would become pointless to them. This was also found by Bishop and Willis (2014), who studied the importance of hope in how young people (11-16 years old) view their future. Furthermore, previous research indicates that hope could positively affect the experience of negative emotions (Bishop and Willis, 2014), by mitigating despair (Nairn, 2019) and the paralyzing effects of fear (Kleres and Wettergren, 2017).

In my results, similarly to Jasper's, hope is mostly recognized as the positive pole in this interaction of emotions. However, whereas Jasper (2011) explains this hope for a better future is often combined with fear or anxiety about the present, it differs from my results. I found it is mostly fear and anxiety about the future or feeling powerless or angry about the present situation that is combined with hope. In these interactions, the negative emotions are often experienced to be demotivating, whereas hope for change gives the activists the motivation to keep going. The combination between these negative and positive emotions creates the motivational power climate activists need and experience (Jasper, 2011; Kelly, 2017; Kleres and Wettergren, 2017). This study thus adds to the moral battery theory of Jasper (2011), by giving a further understanding of which positive and negative emotions interact and stimulate people to act.

Emotional convergence

The emotional contagion theory of Fischer et al. (2009) helps to understand how both individual and collective emotions are experienced by the members of FFFN, by explaining the connection between the two. In their article, Fischer et al. (2009) describe the process of emotional contagion (*emotionele besmetting)*. Emotional contagion takes place when the emotions of one person lead another person to experience the same emotions (Fischer et al., 2009, p. 169). Collective emotions are the emotions that are collectively experienced within a group (Bericat, 2016; Fischer et al., 2009). Since emotions are formed in the process of interactions and are thus neither individual nor fully collective (Jasper, 2014b), emotional contagion connects the two and explains how emotions felt by one individual can quickly be experienced by whole groups through emotional contagion. Fischer et al. (2009) explain how in one-on-one interactions this process knows three steps: 1) the recognition of emotions through someone's body language and the context in which emotions are expressed; 2) the imitation of the recognized emotions which can improve people's social relations and sympathy for each other, and 3)

physical feedback. When concerning long-term emotional contagion processes and the development of emotions in groups, this process is called emotional convergence (*emotionele convergentie*) (Fischer et al., 2009). The degree of emotional convergence is dependent on the ability of people to empathise with one another (to take perspective) and social appraisals (our expectations and interpretations of a certain emotional reaction). Fischer et al. (2009) mention how it is easier to recognize emotions in others when experiencing the same emotions or situations, like in protests: "the own emotional experience activates knowledge about this emotion, that consequently facilitates a similar interpretation of the behaviour of someone else" (P.171). This explains how in the case of FFFN, the members' individual emotions are affected by others during their collective actions. Through the process of emotional convergence their individual emotions can become shared emotions. This also connects to the explanation of participants about how their chants can determine which emotions are experienced during an action. For example, if someone starts an angry shout about Shell, this anger is recognized and imitated by other participants, something that was clearly observed during participant observations. This process of emotional imitation can strengthen the connectedness people experience within a group (Fischer et al., 2009), thus improving members positive reciprocal emotions. This is relevant since this study shows the importance of reciprocal and shared emotions in the climate movement. The members of FFFN emphasized that recognizing that others feel the same way motivates them and gives them confidence and hope, by knowing that they will not have to fight the crisis alone. Some members expressed how climate activism helped them to convert their negative emotions into action. Feeling hopeful stimulates them to take action, and the members gain hope from their actions in return (Jasper, 2014b; Kleres and Wettergren, 2017; Martiskainen et al., 2020; Nairn, 2019).

7.2. Reflection theory and methods

Although there might be more theory relevant to this subject of the present research, I chose to focus on a framework in which emotions in social movements form the centre. By using theories about the role of emotions in social movements, this study gained information on how emotions are experienced by young people in a social climate movement, how their emotions interact and how the motivation of the climate activists stands or falls with these emotions. The emphasis of the theoretical framework was on eco-anxiety, assuming this would be the starting point from which other emotions emerge or other emotions interact with. However, this might not have always been the case in reality. The theoretical framework is also partly based on psychological literature and not solemnly on social/anthropological literature.

For the purpose of this research and considering the short time span of the research, only 15 interviews were carried out. Usually in qualitative research it is best to collect data until saturation (Fusch and Ness, 2015; Saunders et al., 2018). Although certain themes and aspects were repeated and similarities were recognized within the 15 interviews, a stronger and possibly slightly different conclusion could have been drawn if more data was collected. Besides, as a result of the Covid-19 situation including lock downs, group limits and the 1.5 distance rule there were less protests to observe, which made it harder to do participant observation. Although participating in the bigger national actions (in Amsterdam and Utrecht) provided useful background/contextual information for this study, as it gave me the opportunity to experience how it feels to protest with so many people and to be part of an action, I gained more specific information from the small scale local actions. During the national actions with thousands of people, it was hard to find members of FFFN specifically. Even when I found them, they were usually quite busy with their friends or with the action. That made it harder for me to chat with them. During the local actions, I noticed that in the beginning the activists, especially the younger high school students, somewhat avoided me. They were only speaking to me when I asked them a

question. It was easier to talk to the university students, probably since I am of similar age or maybe because the younger activists found it intimidating to have an older new person joining them for research purposes and they needed some time to get to know me. After some time passed and I helped them with the local action, the members opened up to me and I was able to have some nice conversations. I learned more about the movement, the members' motives to join and how they perceive each other as very good friends. Since protesting was new for me, it was also quite overwhelming in some cases, especially in the beginning. As a result, I found it harder to approach people, which could also be a reason that I gained more information from the small scale actions than the national actions.

Since the data collection phase overlapped with the fall/winter season, it might also be a reason that less actions were organized. Therefore, my results are mostly based on the interviews. Although combined with literature, the results are based on a case study in FFFN. Different findings might be found in diverse youth climate movements. Members mention XR for example to be less hopeful compared to FFFN, focusing more on doomism than hope. The different scope of various movements can thus lead to other results.

Furthermore, in my proposal I mentioned several criteria for interviewees to ensure a representative sample of the members of FFFN. I planned to take into account: the boy-girl ratio, their ages, their degree of activity within the movement and all participants had to experience eco-anxiety. In practice, it was much harder to find any members willing to do an interview, so I let go of most of the criteria. I probably only interviewed the most active members of the movement. Less active members might therefore experience different emotions, or to a lesser extent. They might perceive the situation as less pressing and not experience eco-anxiety, guilt or grief as much as the most active members do. Furthermore, I tried to specially ask male members for an interview. They ended up being one third of the participants. Although this is not equivalent to the amount of woman, it might be representative for the current situation in FFFN, since woman form the majority within FFFN (Wahlstrohm et al., 2017). I also made sure not to focus on the graduate students and find enough high school students as well. However, the above mentioned were more guidelines that strict criteria.

7.3. Societal/Scientific Relevance

This study contributes by showing the importance of eco-emotions for the members of youth climate justice movements. Knowledge about how diverse eco-emotions are experienced by young climate activists helps to understand how these emotions stimulate climate activism (Kleres and Wettergren, 2017). The study provides information about role of emotions in people's motivation to commit to a climate movement and it shows how emotions are/can be used to mobilize people. Since FFF is a climate justice movement focused on intersectional activism, this study is not only relevant for understanding the role of emotions in climate movements. It also helps to understand the importance of emotions for activists in other social dimensions, like protests on discrimination or currently people's motivation to participate in strikes against the war in Ukraine.

Furthermore, the study also to understand that negative emotions (like anxiety or powerlessness) are not always demotivational. Negative emotions are found to be a reason to start with climate activism and they can strengthen positive emotions or be motivational themselves through the interaction between positive and negative emotions (Jasper, 2011). It therefore also contributes by decreasing the existing knowledge gap on how young people use emotions like hope to make their negative emotions practically useful (Bishop & Willis, 2014; Ojala, 2012), and shows the relevance of reciprocal and shared emotions for the endurance of young people to stay active and committed to the climate movement

by indicating that young climate activists might quit or burn out if their negative emotions prevail over their positive shared and reciprocal emotions (Nairn, 2019).

Besides, this study contributes by showing the importance of the acknowledgment of young people's emotions, especially their fears about the future. While youth climate movements are on the rise, the voices of these young climate activists are not heard and this increases their eco-anxiety (Hickman, 2020 and Nairn, 2019), which can negatively affect their well being (Hickman et al., 2021).

Lastly, according to Stanley et al. (2021), their study about the impacts of eco-anxiety, eco-depression, and eco-anger on climate action and human wellbeing "forges a path for future research on what makes people angry about the climate crisis" and on "how to harness eco-anger to drive pro-climate action for the benefit of human and planetary health" (p.5). This study helps to answers these questions by pointing out that: 1). young climate activists are angry about the inaction of people in power to stop the climate crisis and the omitting of their voices, and 2). by describing that young people are able to harness emotions like eco-anger to drive pro-climate action in combination with other emotions like hope or togetherness. It thus shows how emotions can be used to stimulate climate actions for the benefit of our future and the future of the earth.

7.4. Recommendations

This research was based on a case study in FFFN. Some of the members of FFFN indicated that there are differences in focus and perspective between diverse youth climate movements. Where hope is an important incentive in FFFN, participants mentioned for example the members of Extinction Rebellion (XR) to be more hopeless. Buzogány and Scherhaufer (2022) also point out diverse differences between these two climate justice movements. Furthermore, Maier (2020) describes that even within FFF itself there might be differences, since FFF is a large global movement with a lot of sub-groups. For future research it is recommended to look at the difference between diverse climate movements and see whether different emotions are perceived as (de)motivational in these movements.

Furthermore, it was found that some members have experience with burn-outs in the climate movement. These members indicated to believe that especially when people are young, burn-outs occur more often. Wallis and Loy (2021) point out hope to be declining among young climate activists in general and mention this to be alarming. Wallis and Loy (2021) therefore suggest future research should look into the causes of people experiencing hope or despair and relate this to how they cope with worries about the future. In combination with the findings of this study, it can thus be relevant to look at what causes these burn-outs in young people, what makes some people come back and what the role of emotions are in this process. This could for example be done by also interviewing young people that quit activism or currently decided to take a brake from the movement, something that was not done during this study.

Besides, I found there is a research gap on what I called symbolic actions. Van Ness and Summers-Effler (2018) mention in their article further research should be done on emotional staging, so the way in which activists stage/construct their actions "to evoke particular cognitions and emotions in fellow activists, bystanders, and social control agents" (p.422). Symbolic actions could evoke specific emotional reactions, and according to Van Ness and Summers-Effler (2018) further research on the topic could "explain how intended or unintended emotional conditions skew protest outcomes". It might thus be valuable to investigate the reasons for young climate activists to organize symbolic actions, what they hope to achieve with these actions and which role emotions play in these actions.

Lastly, for the purpose of this research no distinction between fear and anxiety was made. However, research points out there is a difference between the two (see for example Pihkala, 2020a or Bericat,

2016). In their research on, among others, the emotions of climate strikers in divers cities, Martiskainen et al. (2020) found that the climate activists experience both fear (experienced by 35% of their research participants) and anxiety (experienced by 21% of their research participants), indicating that fear is experienced differently than anxiety by the protesters. This difference was also found by Wahlstrohm et al. (2020) during their research with participants of a FFF climate strike in Amsterdam. It is therefore recommended to make this distinction in future research on the emotions of young people in climate movements to see how this affects the results.

8. Conclusion

To be able to answer the main question, four sub-questions were formulated. Each will be elaborated on below, after which the main question will be addressed ass well. To start, I will answer the question who the members of Fridays For Future The Netherlands are and how they perceive climate change. The members of FFFN are young people of which most active members are between 14 to 18 years old. Although FFFN is a Dutch climate movement, international students are also active within local groups and females form the majority within FFFN. FFFN is mostly aimed at high school students, and since many members have finished high school already a new movement was brought into life: Students For Future (SFF). While national goals are still in development, the international goals of the movement are mostly focused on ensuring climate justice, staying below 1.5 degrees global warming and following science. The members would like to see a system change, moving away from capitalism that is seen as one of the biggest causes of the climate crisis. Besides climate marches and school strikes, the members of FFFN use diverse symbolic actions that are linked to their emotions to motivate the people in power to initiate action to stop the climate crisis from emerging. The members of FFFN perceive climate change as an emergency. The causes as well as consequences are of importance in this. Human behaviour and 'the system' are seen as the largest contributors to the climate crisis. Mostly western developed rich countries are held responsible, while the MAPA face the biggest consequences, which relates to their strong motivation to ensure climate justice.

Next, I will answer the question which eco-emotions the young people from FFFN experience. Although most members do not feel personally affected by climate change (yet) and emphasize how they are privileged compared to MAPA, they do experience a lot of emotions related to climate change. Anger and fear are the most experienced individual emotions regarding the climate crisis. The members feel angry about the situation, the inaction of the government and previous generations and as a result of not feeling heard. Their fear (or eco-anxiety) is mostly pointed towards the future, being afraid of the consequences of climate change that will affect their lives. A third of the participants mentioned to experience feelings of powerlessness as a result of their inability to change the situation. However, these participants also mentioned to still be hopeful, especially now they have joined a climate movement. It made them feel more powerful, although their experience of youth oppression and inaction of the government can also make them feel powerless again.

Thirdly, I conclude collective emotions are strongly present in FFFN. A distinction can be made between experienced reciprocal emotions and shared emotions. Regarding the reciprocal emotions, the members describe FFFN to be a warm movement where everyone is welcome and where everyone respects each other. Being part of FFFN gives rise to emotions like togetherness, solidarity and pride. Through FFF, the members feel connected with each other. Regarding their shared emotions, the members mostly share their anger towards the governments inaction. That their voices are not heard and their fears are not taken seriously makes them feel anxious, powerless and angry at the same time. Simultaneously, the members explain hope to be a prevailing emotion in the movement. Hope and anger form the strongest incentives of the movement. The participants explained that being a members of FFFN shapes their experience of collective emotions. During actions, they feel more connected and emphasize to feel more powerful than before being a member, since the togetherness and connectedness makes them realize they are not alone in the fight against climate change. Communicating with others in the movement about their emotions and experiences is also found to be motivational. Since collective goals were not strongly present in FFFN, this was not experienced to stimulate collective emotions.

Finally, the last sub-question addresses how the young people from Fridays For Future The Netherlands perceive the ways in which the eco-emotions present stimulate climate activism. I found that the members of FFFN recognize and acknowledge their emotions to stimulate activism. For many members, feeling powerless or guilty were initial reasons to become a climate activist. Now that they are active, it are also their emotions that motivate them to keep going. Their (collective) goals are not perceived as motivational. Rather, striving to reach their goals is experienced as demotivational, since they have to deal with a lot of setbacks and feel like their voices are still not heard. Which individual emotions are perceived as motivating differs per person and per situation. Some members mentioned for example eco-anxiety to be the initial reason to become active, but also experience this feeling as demotivating when it becomes too much. Key to their motivation is hope. Combined with other emotions, this stimulates participants to stay involved in the climate movement. Of their collective emotions, anger prevails as the most motivational emotion. Again, the combination of emotions is important. Without anxiety for the future or perceiving climate change as an emergency and a threat, there is no incentive to become active or be angry about the inaction. The same way, without hope that change is still possible, action is also useless. It is thus the combination and interaction of positive and negative emotions that motivates people. Mostly protesting together, including the emotions these actions evoke, is found to be very powerful and motivational. Although members mentioned to feel hopeless at times, they also pointed out to believe they do not have a choice and need to keep going. Their positive reciprocal emotions and strength and hope they gain from protesting together makes that they are able to do so.

This study aimed to answer the question how the experiences of eco-emotions from young people of Fridays For Future The Netherlands manifest in and shape social climate movements for climate action. It was found that several eco-emotions are experienced by the members of FFFN, individually as well as collectively. The more negative individual emotions (like powerlessness and guilt) are seen as a motivation to become active in climate activism, while the more positive collective emotions (like hope and togetherness) stimulate people to stay active and committed in the climate movement. These emotions manifest in FFFN in several ways: through collective communication about their emotions, through emotional convergence and through their collective actions. Furthermore, the experienced (collective) emotions shape the movement in various ways. Together with the demands of the international movement, the individual goals and viewpoints of the members form the national goals of FFFN that are now in progress. Besides, each local group is unique and differs from other local groups of FFFN in size, members personalities or focus and way of protesting. The groups have the freedom to come up with their own protests, driven by their interests and emotions. This results in diverse symbolic actions. The emotions of the young climate activists shape their actions (like the silent march based on ecological grief) and the actions give rise to their emotions, like hope or anger and stronger reciprocal emotions like a community feeling and pride.

In conclusion, emotions are indeed essential for the members of FFFN. The eco-emotions activists experience are shaped by the movement and shape the movement in return, motivating them to collectively fight for what they believe in: a better world.

9. References

Barker, J., & Smith, F. (2001). Power, positionality and practicality: Carrying out fieldwork with children. *Ethics, Place & Environment*, *4*(2), 142-147. https://doi.org/10.1080/713665949

Baskarada, S. (2014). Qualitative case study guidelines. *The Qualitative Report*, *19*(40), 1-25.

Baxter, P., & Jack, S. (2008). Qualitative Case Study Methodology: Study Design and Implementation for Novice Researchers. *The Qualitative Report*, 13 (4), *544-559*.

Beijen, M. (2021). *Actievoerders hebben zich uitgedost als Mark Rutte en Shell-ceo Ben van Beurden* [picture]. Het Parool. Retrieved on February 15, 2022. From: https://www.parool.nl/amsterdam/tienduizenden-op-de-been-tijdens-klimaatmars-hoe-laat-is-het solidariteit~b4641511/?referrer=https%3A%2F%2Fwww.google.com%2F

Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative research*, *15*(2), 219-234. https://doi.org/10.1177/1468794112468475

Bericat, E. (2016). The sociology of emotions: four decades of progress. *Current Sociology*, *64*(3), 491–513. https://doi.org/10.1177/0011392115588355

Bishop, & Willis. (2014). 'without hope everything would be doom and gloom': young people talk about the importance of hope in their lives. *Journal of Youth Studies*, *17*(6), 778–793. https://doi.org/10.1080/13676261.2013.878788

Bourque, F., & Willox, A. C. (2014). Climate change: the next challenge for public mental health? *International Review of Psychiatry (Abingdon, England)*, *26*(4), 415–22. https://doi.org/10.3109/09540261.2014.925851

Broom, A., Hand, K., & Tovey, P. (2009). The role of gender, environment and Individual biography in shaping qualitative interview data. *International Journal of Social Research Methodology*, *12*(1), 51–65. https://doi.org/10.1080/13645570701606028

Buzogány, A., & Scherhaufer, P. (2022). Framing Different Energy Futures? Comparing Fridays For Future and Extinction Rebellion in Germany. *Futures*. https://doi.org/10.1016/j.futures.2022.102904

Clayton, S., & Karazsia, B. T. (2020). Development and validation of a measure of climate change anxiety. *Journal of Environmental Psychology*, *69*. https://doi.org/10.1016/j.jenvp.2020.101434

Clayton, S. (2020). Climate anxiety: psychological responses to climate change. *Journal of Anxiety Disorders*, *74*, 102263–102263. https://doi.org/10.1016/j.janxdis.2020.102263

Coffey, Y., Bhullar, N., Durkin, J., Islam, M. S., & Usher, K. (2021). Understanding eco-anxiety: a systematic scoping review of current literature and identified knowledge gaps. *The Journal of Climate Change and Health*, *100047*, 100047–100047. https://doi.org/10.1016/j.joclim.2021.100047

Comtesse, H., Ertl, V., Hengst, S. M. C., Rosner, R., & Smid, G. E. (2021). Ecological grief as a response to environmental change: a mental health risk or functional response? *International Journal of Environmental Research and Public Health*, *18*(2). https://doi.org/10.3390/ijerph18020734

Cunsolo, A., & Ellis, N. R. (2018). Ecological grief as a mental health response to climate change-related loss. *Nature Climate Change*, *8*(4), 275–281. https://doi.org/10.1038/s41558-018-0092-2

della Porta, D., & Portos, M. (2021). Rich kids of Europe? Social basis and strategic choices in the climate activism of Fridays for Future. *Italian Political Science Review/Rivista Italiana di Scienza Politica*, 1-26. https://doi:10.1017/ipo.2021.54

DeWalt, K. M., & DeWalt, B. R. (2011). *Participant observation : a guide for fieldworkers* (Second). AltaMira Press.

Fischer, A. H., Van Der Schalk, J., & Hawk, S. T. (2009). Het ontstaan van collectieve emoties via emotionele besmetting. *Sociologie*, *5*(2).

Fridays For Future. (2021). https://fridaysforfuture.org/

Fridays For Future Nederland (n.d.) https://fridaysforfuture.nl/

Fritsche, I., & Masson, T. (2021). Collective climate action: when do people turn into collective environmental agents? Current Opinion in Psychology, 42, 114–119. https://doi.org/10.1016/j.copsyc.2021.05.001

[fridaysforfuturemapa]. 2020, October 16. *We are youth climate activists from MAPA - Most Affected People and Areas.* Instagram. Retrieved on February 15, 2022. From: https://www.instagram.com/fridaysforfuturemapa/

Fusch, P. I., & Ness, L. R. (2015). Are we there yet? Data saturation in qualitative research. *The qualitative report*, *20*(9), 1408.

Galway, L. P., Beery, T., Jones-Casey, K., & Tasala, K. (2019). Mapping the solastalgia literature: A scoping review study. *International journal of environmental research and public health*, *16*(15), 2662. https://doi.org/10.3390/ijerph16152662

Gold, R. L. (1957). Roles in sociological field observations. *Soc. F.*, *36*, 217.

Hanna, A. (2013). Computer-aided content analysis of digitally enabled movements. *Mobilization: An International Quarterly*, *18*(4), 367-388. https://doi.org/10.17813/maiq.18.4.m1g180620x7n1542

Hennink, M., Hutter, I., & Bailey, A. (2020). *Qualitative research methods*. Sage.

Hickman, C. (2020). We need to (find a way to) talk about … eco-anxiety. *Journal of Social Work Practice*, *34*(4), 411–424. https://doi.org/10.1080/02650533.2020.1844166

Hickman, C., Marks, E., Pihkala, P., Clayton, S., Lewandowski, E. R., Mayall, E. E., ... & van Susteren, L. (2021). Young people's voices on climate anxiety, government betrayal and moral injury: A global phenomenon. *Government Betrayal and Moral Injury: A Global Phenomenon*. Article in preparation.

Holmes, A. G. D. (2020). Researcher Positionality--A Consideration of Its Influence and Place in Qualitative Research--A New Researcher Guide. *Shanlax International Journal of Education*, *8*(4), 1-10.

Hough, G., & Ferraris, D. (2010). Free listing: a method to gain initial insight of a food category. *Food Quality and Preference*, *21*(3), 295–301. https://doi.org/10.1016/j.foodqual.2009.04.001

Hrabok, M., Delorme, A., & Agyapong, V. I. O. (2020). Threats to mental health and well-being associated with climate change. *Journal of Anxiety Disorders*, *76*, 102295–102295. https://doi.org/10.1016/j.janxdis.2020.102295

Jasper, J. M. (2011). Emotions and social movements: twenty years of theory and research. *Annual Review of Sociology*, *37*, 285–303. https://doi.org/10.1146/annurev-soc-081309-150015

Jasper, J. M. (2014a). Constructing indignation: Anger dynamics in protest movements. *Emotion Review*, *6*(3), 208-213. https://doi.org/10.1177/1754073914522863

Jasper, J., (2014b). Emotions, sociology and protest. In C. Von Scheve, & M. Salmella (Eds.), *Collective emotions: Perspectives from psychology, philosophy, and sociology* (p. 341-355). OUP Oxford.

Kawulich, B. B. (2005). Participant observation as a data collection method. In *Forum qualitative sozialforschung/forum: Qualitative social research*, 6 (2).

Kelly, A. (2017). Eco-anxiety at university: Student experiences and academic perspectives on cultivating healthy emotional responses to the climate crisis.

Kemper, T. D. (1987). How many emotions are there? wedding the social and the autonomic components. *American Journal of Sociology*, *93*(2), 263–289.g

Kleres, J., & Wettergren Åsa. (2017). Fear, hope, anger, and guilt in climate activism. *Social Movement Studies*, *16*(5), 507–519. https://doi.org/10.1080/14742837.2017.1344546

Krueger, J. (2015). The Affective" We": Self-regulation and Shared Emotions. Routledge.

Lazarus, R. S. (1999). Hope: An emotion and a vital coping resource against despair. *Social research*, 66(2), 653-678.

Le Clercq, A. (2021, July 2). Canadees dorp dat hitterecord brak door vlammen verzwolgen. [Canadian village that broke heat record has been engulfed by flames]. *Volkskrant* https://www.volkskrant.nl/nieuws-achtergrond/canadees-dorp-dat-hitterecord-brak-door-vlammen-verzwolgen~b2c20604/

León Felipe, Szanto, T., & Zahavi, D. (2019). Emotional sharing and the extended mind. *Synthese : An International Journal for Epistemology, Methodology and Philosophy of Science*, *196*(12), 4847–4867. https://doi.org/10.1007/s11229-017-1351-x

Maier, B. M. (2020). " No Planet B": An analysis of the collective action framing of the social movement Fridays for Future

Mare, A. (2017). Tracing and archiving 'constructed' data on facebook pages and groups: reflections on fieldwork among young activists in zimbabwe and south africa. *Qualitative Research*, *17*(6), 645–663. https://doi.org/10.1177/1468794117720973

Martiskainen, M., Axon, S., Sovacool, B. K., Sareen, S., Furszyfer Del Rio, D., & Axon, K. (2020). Contextualizing climate justice activism: knowledge, emotions, motivations, and actions among climate strikers in six cities. *Global Environmental Change*, *65*. https://doi.org/10.1016/j.gloenvcha.2020.102180

Miller, D. A., Cronin, T., Garcia, A. L., & Branscombe, N. R. (2009). The relative impact of anger and efficacy on collective action is affected by feelings of fear. *Group Processes & Intergroup Relations*, *12*(4), 445–462. https://doi.org/10.1177/1368430209105046

Milton, K. (2005). Emotion (or life, the universe, everything). *The Australian Journal of Anthropology*, *16*(2), 198–211. https://doi.org/10.1111/j.1835-9310.2005.tb00034.x

Nairn, K. (2019). Learning from young people engaged in climate activism: the potential of collectivizing despair and hope. *Young*, *(2019)*. https://doi.org/10.1177/1103308818817603

Neckel, S., & Hasenfratz, M. (2021). Climate emotions and emotional climates: the emotional map of ecological crises and the blind spots on our sociological landscapes. *Social Science Information*, *60*(2), 253–271. https://doi.org/10.1177/0539018421996264

Noth, F., & Tonzer, L. (2022). Understanding climate activism: Who participates in climate marches such as "Fridays for Future" and what can we learn from it?. *Energy Research & Social Science*, *84*, 102360. https://doi.org/10.1016/j.erss.2021.102360

NU.nl (2021, August 31). Duizenden inwoners van Californië op de vlucht voor bosbranden. [Thousands of residents of California on the run for forest fires] *NU.nl* https://www.nu.nl/klimaat/6154191/duizenden-inwoners-van-californie-op-de-vlucht-voor-bosbranden.html

Ojala, M. (2012). Hope and climate change: the importance of hope for environmental engagement among young people. *Environmental Education Research*, *18*(5), 625–642. https://doi.org/10.1080/13504622.2011.637157

Ojala, M. (2017). Hope and anticipation in education for a sustainable future. Futures: The journal of policy, planning and futures studies, 94, 76–84. https://doi.org/ 10.1016/j.futures.2016.10.004

Pihkala, P. (2020a). Anxiety and the ecological crisis: an analysis of eco-anxiety and climate anxiety. *Sustainability*, *12*(19), 7836–7836. https://doi.org/10.3390/su12197836

Pihkala, P. (2020b). Eco-anxiety and environmental education. *Sustainability*, *12*(23), 10149–10149. https://doi.org/10.3390/su122310149

Pihkala, P. (2018). Eco-anxiety, tragedy, and hope: psychological and spiritual dimensions of climate change. *Zygon*, *53*(2), 545–569. https://doi.org/10.1111/zygo.12407

Punch, S. (2002). Interviewing strategies with young people: the 'secret box', stimulus material and task-based activities. *Children & Society*, *16*(1), 45–56. https://doi.org/10.1002/chi.685

Reyes, M., & Calderon, A. (n.d.). *What is MAPA and why should we pay attention to it?* Fridays For Future. Retrieved on February 15, 2022. From: https://fridaysforfuture.org/newsletter/edition-no-1-what-is-mapa-and-why-should-we-pay-attention-to-it/

Ryan, G. W., Nolan, J. M., & Yoder, P. S. (2000). Successive free listing: using multiple free lists to generate explanatory models. *Field Methods*, *12*(2), 83–107.

RTL Nieuws (2021, August 14). Dodental overstromingen Turkije opgelopen tot boven de 50. [Flood death toll in Turkey rises above 50]. *RTL Nieuws* https://www.rtlnieuws.nl/nieuws/buitenland/artikel/5248152/turkije-doden-overstromingen-noodweer

Salmela, M., & Nagatsu, M. (2017). How does it really feel to act together? Shared emotions and the phenomenology of we-agency. *Phenomenology and the Cognitive Sciences*, *16*(3), 449-470. https://doi.org/10.1007/s11097-016-9465-z

Saunders, B., Sim, J., Kingstone, T., Baker, S., Waterfield, J., Bartlam, B., Burroughs, H., & Jinks, C. (2018). Saturation in qualitative research: exploring its conceptualization and

operationalization. *Quality and Quantity*, *52*(4), 1893–1907. https://doi.org/10.1007/s11135-017-0574-8

Schlosberg, D. (2004). Reconceiving environmental justice: global movements and political theories. *Environmental Politics*, *13*(3), 517–540. https://doi.org/10.1080/0964401042000229025

Schlosberg, D., & Collins, L. B. (2014). From environmental to climate justice: climate change and the discourse of environmental justice. *Wiley Interdisciplinary Reviews: Climate Change*, *5*(3), 359–374. https://doi.org/10.1002/wcc.275

Stanley, S. K., Hogg, T. L., Leviston, Z., & Walker, I. (2021). From anger to action: differential impacts of eco-anxiety, eco-depression, and eco-anger on climate action and wellbeing, *1*. https://doi.org/10.1016/j.joclim.2021.100003

Tevreden.nl (n.d.). *Kinderen en onderzoek, vanaf welke leeftijd?* https://www.tevreden.nl/blog/kinderen-en-onderzoek/

Turner, J. H. (2007). *Human emotions: A sociological theory*. Routledge.

UNICEF (2021). The Climate Crisis is a Child Rights crisis: Introducing the Children's Climate Risk Index. New York: United Nations Children's Fund (UNICEF). https://www.unicef.be/sites/default/files/2021-08/UNICEF-climate-crisis-child-rights-crisis.pdf

United Nations (2013): Youth_Definiton_2013-1-23. Retrieved at November 10, 2021 from https://www.un.org/esa/socdev/documents/youth/fact-sheets/youth-definition.pdf

Usher, K., Durkin, J., & Bhullar, N. (2019). Eco-anxiety: how thinking about climate change-related environmental decline is affecting our mental health. *International Journal of Mental Health Nursing*, *28*(6), 1233–1234. https://doi.org/10.1111/inm.12673

Van Ness, J. and Summers-Effler, E., 2018. Emotions in social movements. *The Wiley Blackwell Companion to Social Movements*, pp.411-428.

Van Zomeren, M., Pauls, I.L., Cohen-Chen, S., 2019. Is hope good for motivating collective action in the context of climate change? Differentiating hope's emotion- and problem-focused coping functions. *Global Environ Change*, 58. https://doi.org/ 10.1016/j.gloenvcha.2019.04.003

Wahlström, M., Sommer, M., Kocyba, P., de Vydt, M., De Moor, J., Davies, S., Wouters, R., Wennerhag, M., van Stekelenburg, J., Uba, K. and Saunders, C., 2019. Protest for a future: Composition, mobilization and motives of the participants in Fridays For Future climate protests on 15 March, 2019 in 13 European cities.

Warsini, S., West, C., Ed, T. G. D., Res, M. G. C., Mills, J., & Usher, K. (2014). The psychosocial impact of natural disasters among adult survivors: an integrative review. *Issues in Mental Health Nursing*, *35*(6), 420–36. https://doi.org/10.3109/01612840.2013.875085

10. Appendix

A. Interview guide English

Start Interview:

Explain a little about:

- The research and research purpose
- Informed consent
- Anonymity
- Ask permission to record the interview.

free-listing 1

- Write down all the words that come to mind when you think about climate change
- Stop when you cannot think of anything new or feel like it's enough
- Make a top 3 of the answers that best represent your perception of climate change

    - Can you explain why you choose these three words?
    - Do you feel like you are affected by climate change in your life?

    - Motives of young people to join the movement:
        - Why did you join FFFN? (*Why not extinction rebellion for example?)*
            - Is this also your general motivation to participate in climate activism?
        - Can you explain a little bit about your group/department….. Roermond/ Emmen/Zwolle/Amsterdam, etc.
        - How long have you been a member of FFFN?
        - How actively are you involved/do you participate in the activities of this group?
        - What was your most memorable moment during your time as a member?
            - Was this a positive or negative experience?
    - Personal and collective goals regarding climate change/environmental crisis:
        - What do you hope to achieve? What are your climate related goals?
        - Do these climate goals motivate you to participate in climate activism?
            - Do you sometimes also experience striving to reach your goals as demotivating? *(for example when you do not seem to get closer to your goals or climate actions do not have the desired effect)*
            - Does participating in climate activism helps you to reach this goal?
        - What are the collective goals of FFFN?
        - How do you feel about this?
            - Do you think the other members have similar thoughts?
        - Are the collective FFF goals stimulating you to keep going?
            - Do you feel like you are getting closer in reaching these goals together? (*refer to largest national climate strike November 6th : Nederland stopt toch met buitenlandse investeringen in kolen, olie en gas)*
    - Experience of (collective) emotions:

        - How does it make you feel to be part of a FFF…. (specific group) ?
        - How do you feel towards the other members of your group?
        - What kind of emotions does the movement evoke for you?
        - Do you think that being part of a group shapes your experience of climate change?
            - Why/how?

Free-Listing 2

- How does climate change make you feel? What emotions do you feel when thinking about climate change?
- Make a top 3
    - Can you explain your top 3?
    - Are you familiar with eco-anxiety?
        - If yes, do you experience or have you experienced this feeling yourself?
        - If no, explain its meaning

    - Motivational or demotivational personal emotions:
        - Are there moments when you feel extra motivated to keep participating in climate actions?
            - How do you feel at those moments?
            - Can you give an example of an event at which you experienced this?
            - Are there certain feelings that motivate you? If yes, which ones?
            - Does FFFN have an influence on how you experience these moments?
        - Are there any moments at which you feel demotivated/lose the motivation to participate in climate action?
            - How do you feel at those moments?
            - Can you also give an example of when you experience these feelings?
            - Does FFFN have an influence on how you experience these moments?
        - Do you get negative criticism from outsiders on your activities?

    - Are collective emotions present and experienced by the members of FFFN:
        - How do you usually feel during a national climate strike or an event you/your department organized?
        - Do you think that being a member of FFFN influences how you feel during an event?
            - Why/how?
        - How do you feel after these events have occurred, when you're back home alone?
        - I was present during the Climate march at November 6th in Amsterdam and the one from Utrecht in September. Where you present at one of them as well?
            - If yes, how did you experience this event? How did you feel during the march? If no, can you describe another event that you have been to and that was important to you?

                - Does this differ from how you experience local events from your department?
                - DO you feel like the one is more effective than the other?
            - Do you think that at such an event, like the climate march in Amsterdam or Utrecht, the members from FFFN experience the same feelings?
                - If yes, which ones?
        - Do you talk about your experiences or feelings within the movement?
            - Are there certain emotions or feelings that are shared by the members of this group? And within the whole movement? *(give an example if needed, like respect or disappointment)*
                - If yes, which ones?
                - In which scenarios? Can you give an example?
            - Do you experience is as motivating for you to know that there are others feelings the same way as you do?
                - If yes, which ones?
                - If no, why not?
            - Are there also shared feelings that are demotivating?
        - Extinction Rebellion sees for example collective anxiety as a motivating stimulus for action. They think that their shared anxiety about the environment and the future of this planet is needed to drive their action. Do you think that within FFFN there are similar experiences or believes about certain emotions/feelings?
            - If yes, which ones?
            - If not, why not?
    - <u>Does the movement pay attention to these emotions:</u>
        - Do you think FFFN pays attention to the feelings of their members?
        - I was present at an event of FFF Zwolle, who organized a silent march in the light of ecological grief. Does it happen more often that departments organize an event based on feelings or emotions that people experience, like grief in the example of Zwolle?

Last question: In general, what motives you the very most to participate in climate activism?

End interview:

- Thanks!!
- Repeat agreements: anonymity, recording, etc.
- Do you know other who might be willing do to an interview with me?
- Do you have any questions yourself?

B. Interview guide in Dutch

Start Interview:

Geef een korte uitleg over:

- Het onderzoek, doel van het onderzoek en hoe de data gebruikt zal worden;
- Geanonimiseerd
- Toestemming om het interview op te nemen

free-listing 1

- Schrijf alle woorden op die meteen bij je opkomen wanneer je denkt aan klimaatverandering
- maak een top 3 maken van de woorden die het best je gedachten over klimaatverandering weergeven.

- Kun je uitleggen waarom deze 3 woorden voor jou het best jouw kijk op klimaatverandering weergeven?
- Heb je het gevoel dat je in je huidige leven wordt getroffen door de gevolgen van klimaatverandering?

    - Motieven van jongeren om lid te worden van de beweging:
        - Waarom ben je mee gaan doen met klimaatactivisme?
        - Waarom ben je specifiek lid geworden van FFFN? *(Waarom niet bijvoorbeeld Extinction Rebellion?)*
        - Kun je wat vertellen over deze groep….? (Roermond/ Emmen/Zwolle etc.)
        - Hoe lang ben je al lid van FFFN?
        - Hoe actief ben je betrokken bij/doe je mee aan de activiteiten van deze groep?
        - Welk moment heeft het meeste indruk op je gemaakt sinds je lid bent bij FFFN?
            - Was dit een positieve of een negatieve ervaring?
    - Persoonlijke en gezamenlijke klimaat doelen:
        - Wat hoop je dat er bereikt gaat worden? Heb je klimaatdoelen?
        - Motiveren je klimaatdoel(en) je om deel te nemen aan klimaatactivisme?
            - Ervaar je het streven om je doelen te halen soms ook als demotiverend? (*bijvoorbeeld wanneer je niet dichter bij je doelen lijkt te komen of klimaatacties niet het gewenste effect hebben)*
            - Helpt het deelnemen aan klimaatactivisme je om dit doel te bereiken?
        - Wat zijn de gezamenlijke doelen van FFFN?
        - Stimuleren de collectieve doelen van FFFN je om lid te blijven en deel te nemen aan klimaatactivisme?
            - Heb je het gevoel dat je door samen te werken dichter bij deze doelen komt? (verwijs naar de grootste nationale klimaatmars van 6 november: *Nederland stopt toch met buitenlandse investeringen in kolen, olie en gas)*
        - Hoe voelt het om deel uit te maken van FFF…. (specifieke groep)
        - Wat voor gevoelens ervaar je tegenover de andere leden van deze groep?
        - En wat voor gevoelens roept FFFN als beweging bij jou op?

- Denk je dat het deel zijn van deze groep jouw kijk op klimaatverandering beïnvloed?
    - Waarom/hoe?

<u>Free-Listing 2</u>

Schrijf alle woorden op waar je aan denkt als ik vraag wat voor gevoelens er bij je opkomen als je denkt aan klimaatverandering. Dus wat voor gevoelens roept klimaatverandering bij jou op? Maak nadat je geen nieuwe woorden meer kunt bedenken een top 3 van je antwoorden die het best jouw gevoel weergeven.

- Kun je uitleggen waarom je voor deze 3 woorden hebt gekozen?
- Ken je het begrip klimaatangst of eco-anxiety?
    - Zo ja, heb je dit gevoel zelf wel eens gehad?
    - Zo nee, leg het begrip uit

<u>Motiverende of demotiverende persoonlijke emoties:</u>

- Zijn er momenten waarop je je extra gemotiveerd voelt om deel te blijven nemen aan klimaat activisme?
    - Hoe voel je je op deze momenten?
    - Kun je een voorbeeld geven van een evenement waarop je dit hebt ervaren?
    - Zijn er bepaalde gevoelens die jou motiveren? Zo ja, welke?
    - Heeft FFFN invloed op hoe jij deze momenten ervaart?
- Zijn er ook momenten waarop je je gedemotiveerd voelt/de motivatie om deel te nemen aan activisme verliest?
    - Hoe voel je je op deze momenten?
    - Kun je een voorbeeld geven van een moment waarop je je zo voelde?
    - Heeft FFFN een invloed op hoe jij deze momenten ervaart?
- Krijg je wel eens negatieve feedback of commentaar van buitenstaanders op jullie activiteiten?

- <u>Zijn collectieve emoties aanwezig en worden zij ervaren door de leden van FFFN:</u>
    - *Verwijs naar specifieke evenementen, met name degene waar ik ook participant observation bij heb kunnen doen. Hoe hebben zij deze evenementen ervaren?*
    - Hoe voel je je meestal/gewoonlijk tijdens een nationale klimaat mars of evenement dat jouw groep/afdeling heeft georganiseerd?
    - Denk je dat het lid zijn van FFFN beïnvloed hoe jij je voelt tijdens een evenement?
        - Waarom/hoe?
    - Hoe voel je je na die tijd, wanneer je weer alleen bent?
        - Verschilt dit van voor/tijdens de activiteit? Zo ja, waarom?
    - Ik was aanwezig bij de klimaatmars op 6 november in Amsterdam en die van Utrecht in september. Ben jij ook bij een van deze evenementen geweest?
        - Zo ja, hoe heb je dit evenement ervaren? Zo nee, kun je een ander groot evenement beschrijven waar je geweest bent en dat belangrijk voor je was?
            - Verschilt deze ervaring van hoe je jullie lokale evenementen ervaart?

- Denk je wel dat beiden effectief zijn?
- Denk je dat tijdens zo'n evenement, als de klimaatmars in Amsterdam of Utrecht, de leden van FFFN dezelfde gevoelens ervaren?
    - Zo ja, welke?

- Praten jullie onderling met mensen binnen de beweging ook over jullie ervaringen met elkaar?
    - Zijn er bepaalde gevoelens die worden gedeeld door de leden van deze groep? En binnen de hele beweging? *(geef eventueel een voorbeeld, zoals respect of teleurstelling)*
        - Zo ja, welke gevoelens?
        - In welke situaties gebeurt dit? Kun je een voorbeeld geven?
    - Ervaar je het als motiverend dat je herkent dat anderen zich op dezelfde manier voelen?
        - Zo ja, waarom en welke zijn motiverend?
        - Zo niet, waarom niet?
    - Zijn er ook gevoelens die jullie delen en die je als demotiverend ervaart? Dat iemand stemming of negatieve ervaring ook anderen naar beneden haalt?
- Ik had gelezen dat Extinction Rebellion bijvoorbeeld gezamenlijke klimaatangst/stress als een motivatie ziet om samen actie te voeren. Zij denken dat deze gedeelde angst voor het klimaat en de toekomst nodig is om het actievoeren te stimuleren. Zijn er binnen FFFN hetzelfde soort opvattingen over bepaalde gevoelens?
    - Zo ja, welke gevoelens zie jij als de drijfveer van de beweging?
    - Zo nee, waarom niet?

- <u>Besteed de beweging aandacht aan deze emoties:</u>
    - Ik ben aanwezig geweest bij een evenement van FFF Zwolle. Zij organiseerden toen een stille toch in het teken van rouw om het klimaat en stilstaan bij wat we al verloren hebben en nog gaan verliezen. Gebeurt het vaker dat verschillende groepen dit soort symbolische acties organiseren die te maken hebben met bepaalde gevoelens die hun leden ervaren, zoals bijvoorbeeld rouwen om het klimaat in het voorbeeld van Zwolle?

Laatste vraag: Over het algemeen, wat stimuleert jou het meest om deel te nemen aan klimaat activisme?

Einde interview:

- Herhaal overeenkomsten/afspraken over anonimiteit, recording, etc.
- Ken je misschien nog anderen die wel deel willen nemen aan een interview met mij?
- Heb je misschien zelf nog vragen of feedback voor mij?

C. Results free-listing exercise perception climate change

P1	P2	P3	P4	P5
Extinctions	Now	It's getting worse	Activism	Fear
Natural disasters	Action	World	FFF	Money
Global warming	Intersectional	Changes	Powerlessness	Future
P6	P7	P8	P9	P10
Climate agreement	Emergency	Forest fires	Tipping points	Scared
Fossil fuels	1.5 degrees	Extreme weather	Injustice	Injustice
Destroyed ecosystems	Extreme weather	Animals going extinct	Greenhouse emissions	Natural resource extraction
P11	P12	P13	P14	P15
Government	Problem	Disasters	Fear	Inspiring for new
Poor countries victim of rich countries	Politics	Young people	Consequences	What's the cause
Extreme weather	Young people	Government	Government	Ecosystems

Figure 6: Participants top 3 about thoughts on climate change

#1	#2	#3	#4	#5	#6	#7	#8	#9	#10	#11	#12	#13	#14	#15				
global warming	1.5 degrees	Climate actions	powerlessness	Future	Climate agreement	sea-level rise	Climate	Climate justice	Injustice	Heavy weather conditions	Politics	Demonstrating	Warm	Nature				
environmental pollution	justice	Milieu	combative	people	ecological	politicians	Forest fires	Mapa	Inequity	System change	Warm	Disasters	Thierry Boudet	Ecosystem				
deforestation	international	Changes	Shell	world	sustainability	news	see level	Brazil	Fear	World wide movement	Protest	Young people	Government	Carbon		42		Causes
fossil fuels	intersectional	It is getting worse	love for the earth	livability	natural gas	arctic	greenhouse gas	Amazone	Scared	Future	Movement	Warmer	Global warming	Inequality		56		Consequences
extinctions	action	Varied	FFF	fear	fossil fuels	CO2 emissions	CO2	deforestation	Rising	Young people	Eating meat	Drier	FFF	"fight"		34		Activism
natural disasters	now	How small doesn't matter	[activist]	extreme	Greta Thunberg	COP	Shell	equilibria	Destruction	Government	veganism	See level	[a friend]	Future		15		Politics
floods	needed	Weather	Greta Thunberg	crisis	melting ice berg	Thunberg	Urgenda	tipping points	Natural disaster	Nature	Mark Rutte	Fridays For Future	cloths	Migration		16		Emotions
forest fires	governments	Everyone and everything equally	XR	anger	zero waste	Climate neutral	Protests	plastic soup	Death	Tropical rainforest	fridays for future	Government	cheese	Living conditions		9		International
melting polar caps		Getting worse	mom and dad	capitalism	ecological footprint	forest fires	Electric cars	ecosystems	Extinction	Indigenous people in danger	Youth for Climate		energy	Whats's the cause?		13		Injustice
		World	S4F	money	capitalism	extreme weather	Measures	injustice	Young people	Poor countries victim of rich countries	Young people		summer	Complex		7		system change
			sadness		Shell	floods	Climate agreement	oceans	The older generation responsible	Animals extinctions	Next generation		strikes	Hopelessness		18		goals/solutions
			Rutte		polluting oceans	migration	Cop26	CO2	Systsem change	Litter	Greenhouse effect		sadness	Threatening		8		future
			Uganda		plastic soup	hunger	Animals going extinct	greenhouse gas	Colonialism	Plastic soup	Education		government	Inspiring for new		20		Nature
			justice		ecosystems destroyed	increasing temperature	Extreme weather	methan	Imperialism and globalization	Mass production	Research		[activist]	Old ideas		18		Others
			oil, gas, coal			emergency		nitrous oxide	Natural resource extraction		Science		poor countries natural disasters	guilt				
			inequality			action needed		athmosphere	CO2		Problem		melting ice	shame				
			flood			1.5 degrees		tundra climate	Fossil Fuels		Not heard		warm during summer holidays	politics				
			heat waves			Fridays for Future		industry	Indigenous sovereignty				world	Global				
			tsunamis			human made		traffic	LNG				Mark Rutte	Local				
			YFC					airplanes	Pipelines				Geert Wilders	Biodiversity				
			TFC						Dams				Greta	Frustration				
			Mapa						Salmon river				Klimate bord	Beauty				
			activism						Refugees				Animals going extinct					
			friends						End of the world				polar bears					
			goal						Tornado's				sea level rising					
			trees						Hurricanes				fear					
			dissatisfaction						Tsunamis									
			plastic															
			biodiversity															
			everything															
			racism															
			feminism															
			Klassisme															
			corona															
			bees															
			zoom															
			meetings															
			Code Rood															
			criminal record															
			police															
			jail															

Figure 7: Full list free-listing exercise perception climate change

D. Results free-listing exercise emotions climate change

#1	#2	#3	#4	#5
Fear	Optimism/pessimism	Adrenaline	Power	Fear
Anger	Contribute	Tension	Combative	Togetherness/solidarity
Grief	Hope	Happy/sad	Powerlessness	Power
#6	**#7**	**#8**	**#9**	**#10**
Fear	Powerless	Fear	Enthousiasm	Unsure
Anger	Restless	Anger	Guilt	Nervous
Hope	Ambitious	Empathy	Hopelessness	Fear
#11	**#12**	**#13**	**#14**	**#15**
Powerlessness	Anger	Powerlessness	Anger	Sad
Worry	Fear	Sadness	Fear	questioning myself
	Depressing	Anger	Sadness	Urge to action
		Hopelessness		

Figure 8: Participants'' top 3 emotions evoked by climate change

#1	#2	#3	#4	#5
Fear	Optimisic	Happy if things go well	Powerlessness	Anger
Powerlessness	Pessimistic	Bad if things go wrong	Combative	Fear
Anger	Hope	Tension	Love for the earth	Hope
Sadness	Contribute	Adrenaline	Sadness	Power
Grief	Suspicious	Emotional	Power	Doubt
	Initiative	Empathy	Anger	Impressive
	Being part of		Frustration	Togetherness
				Support
#6	**#7**	**#8**	**#9**	**#10**
Fear	Anxious	Fear	Hope	Fear
Anger	Anger	Worry	Belittling	Worry
Disappointed	Sadness	Anger	Enthousiasm	Nervousness
Hope	Speecheless	Frustration	Guilt	Uneasy/unsure
Despondent	Powerlessness	Empathy	Responsibility	
	Restless		Accusation	
	Eager to do something		Despair	
	Cannot sit still		Panic	
	Ambitious			
	Hope			
	Devastated			
#11	**#12**	**#13**	**#14**	**#15**
Powerlessness	Fear	Powerlessness	Fear	Sadness
worry	Anger	Sadness	Anger	Hopelessness
	Frustration	Anger	Hope	Hope
	Anxiety	Hopelessness	Happy	Small
	Depressing		Sadness	Questioning of myself
				Urged to action
				Excited

Figure 9: Participants' feel lists emotions evoked by climate change. Anger = red, Powerlessness = yellow, Hope = green, Sadness = purple, Fear/anxiety/worry = blue, discouraged (despair/hopeless/depressing/despondent/devastated) = orange