



Institut für Internationale Entwicklung, Universität Wien
Department of Development Studies, University of Vienna

ie.WorkingPaper

The Climate Crisis and the Fridays for Future
Movement: Causes, Responsibilities and Solutions
through the Lense of Framing Theory

Clemens Bohl, Barbara Braunhuber, Antje Daniel, Denise
Glässer, Otto Ilchmann, Lemonia Lange, Andreas Wingender





The ie.WorkingPaper series presents research carried out at or in partnership with the Department of Development Studies at the University of Vienna. The Department understands development research as a transdisciplinary field of knowledge that includes a wide range of epistemological, theoretical, and methodological approaches and perspectives. These approaches and perspectives should be compatible with and contribute to decolonial and emancipatory production of knowledge. Although there are a wide range of thematic and regional focuses, our research shares two commonalities: the centrality of researching processes and mechanisms that contribute to the production and reproduction of social inequality on the global, regional, and local level and a relational understanding of social, political, and economic transformations.

Editorial team: Antje Daniel, Judith Ehlert, Alexander Hass, Alexandra Heis,
Johannes Knierzinger, Natalie Luftensteiner, Cornelia Staritz
E-mail: workingpaper.ie@univie.ac.at

The Climate Crisis and the Fridays for Future Movement: Causes, Responsibilities and Solutions through the Lens of Framing Theory.

Clemens Bohl, Barbara Braunhuber, Antje Daniel, Denise Glässer, Otto Ilchmann, LEMONIA Lange, Andreas Wingender

Abstract

The *Fridays for Future* (FFF) movement has become a significant and influential player in the environmental and climate policy debate. As part of the Austrian-wide Climate Action Week, a demonstration was held on 31st May 2019 in Vienna together with Greta Thunberg. According to the organizers, up to 35,000 people joined this protest. The *Forschungswerkstatt Protest* (Research Project on Protest) at the Department of Development Studies of the University of Vienna has been conducting research on the FFF protest. On the basis of qualitative and quantitative data, this working paper analyses the opinions and perspectives of the protest participants in respect of causes, responsibilities and solutions for solving the climate crisis. The analysis is carried out through the lens of framing theory. The authors conclude that the great majority of those surveyed attribute responsibility for the crisis to several different actors: Political decision-makers, the economic system, but also individual citizens, especially in their role as consumers, can be identified as the main responsible actors, but there are differences in the weighting of the responsibility of these actors. Political and economic actors are said to have a special responsibility in the face of the crisis; science as a possible driving force is given little attention. Overall, the protest participants look to the future with optimism and believe in the strength of their protest.

Keywords: Fridays for Future, Climate Crisis, Social Movement, Youth, Environmental Movement, Protest, Austria

Author's information: Clemens Bohl is a student in the Department of Development Studies. His research interest is development in the nexus of security, conflict and peace, protest and social movements, human rights, climate and religion.

Barbara Braunhuber is a student in the Department of Development Studies. Her main research interests are social movements, social inequalities and climate change.

Antje Daniel is a university assistant in the Department of Development Studies. Her research interests include social movement research, transformation and democratization, future, utopia and gender studies.

Denise Glässer is a student in the Department of Development Studies. Her main research interests are human rights, social inequalities, social movements and protest movements.

Otto Ilchmann is a student in the Department of Development Studies. His main research interest regarding social movements is formal and informal organizational characteristics, formal and informal leadership features and aspects of interconnections between social movements.

Lemonia Lange graduated in the Department of Development Studies. Her main research interests are social inequalities, democratization, social movements, human rights, post-conflict and peace research. She is working as regional manager at Hilfswerk International for development projects in North Africa and the Middle East.

Andreas Wingender is a student in the Department of Development Studies. His main research interests are social movements, protest movements, youth movements and climate activism, focusing on generational inequalities.

Contact: Clemens Bohl: a11716850@unet.univie.ac.at, Barbara Braunhuber: a00851582@unet.univie.ac.at, Antje Daniel: antje.daniel@univie.ac.at, Denise Glässer: a01408674@unet.univie.ac.at, Otto Ilchmann: a07150192@unet.univie.ac.at, Lemonia Lange: a01303833@unet.univie.ac.at, Andreas Wingender: a00808574@unet.univie.ac.at

Abstract

Die *Fridays for Future* (FFF) Bewegung ist zu einem bedeutsamen und einflussreichen Akteur in der umwelt- und klimapolitischen Debatte geworden. Im Rahmen der österreichweiten Klimaaktionswoche fand am 31. Mai 2019 in Wien gemeinsam mit Greta Thunberg eine Demonstration statt, an der laut Veranstalter*innen bis zu 35.000 Personen teilnahmen. Die Demonstration wurde von der *Forschungswerkstatt Protest* am Institut für Internationale Entwicklung der Universität Wien wissenschaftlich begleitet. Das vorliegende Working Paper analysiert, auf Grundlage der erhobenen qualitativen und quantitativen Daten, die Einstellungen und Sichtweisen der Protestteilnehmer*innen im Hinblick auf die Ursachen, die Verantwortung und die Lösungskompetenzen der Klimakrise. Hierzu dient der Framing-Ansatz als Analyseinstrument. Die Autor*innen kommen zu dem Ergebnis, dass die große Mehrheit der befragten Personen die Verantwortung für die Krise unterschiedlichen Akteur*innen zugeschrieben: Politische Entscheidungsträger, das Wirtschaftssystem, aber auch der einzelne Bürger*innen, vor allem in ihrer Rolle als Konsument*innen, können als hauptverantwortliche Akteur*innen identifiziert werden, wobei es Unterschiede in der Gewichtung der Verantwortung dieser Akteure gibt. Der Politik und der Wirtschaft kommen eine besondere Verantwortung in der Lösung der Krise zu. Die Wissenschaft hingegen findet wenig Beachtung. Insgesamt schauen die Protestteilnehmer*innen optimistisch in die Zukunft und glauben an die Wirkmächtigkeit ihres Protests.

Keywords:

Fridays for Future, Klimakrise, Soziale Bewegung, Jugend, Umweltaktivismus, Protest, Österreich

1. Introduction

For two years now, pupils, students and adults have taken to the streets under the banner of Fridays for Future (FFF) and demonstrated for climate justice. All around the world, including Austria, young people have become active and put pressure on decision-makers at all levels: local, regional, national and international. The Austrian offshoot of FFF was initiated by three students who met Greta Thunberg¹ at the 24th Conference of the Parties (COP24) in Katowice (Bohl/Daniel 2020).² The first climate strike in Vienna took place on 21st December 2018 at Heldenplatz. Since then, there have been weekly strikes, four global strikes and numerous other events and actions to draw attention to the demands of this new movement.³ FFF Austria is divided into regional and local groups. Even though these groups agree on common objectives and principles, each group acts largely independently, but they act together on a regional and national level.⁴

The activists of FFF call for climate justice and immediate action to ensure a maximum increase of 1.5 degrees Celsius global warming, in line with the Paris Agreement which entered into force in 2016. They call attention to the scientific evidence, which predicted the climate crisis 40 years ago with the so-called Charney Report (see National Research Council 1979). The demands of FFF Austria further include the immediate anchoring of climate protection in the constitution, withdrawal from the extraction of oil, coal and gas by 2030, and a continuous reduction of greenhouse gas emissions to zero by 2030. Further concrete demands include an eco-social tax reform, measures to promote biodiversity and the termination of major infrastructure projects, such as a third runway at the Vienna International Airport and plans for the expansion of motorways throughout Austria.⁵ Although the FFF movement demands in general an overall and fundamental change in climate and environmental policy, climate movements are not a new phenomenon (della Porta/Parks 2013).

In order to understand the new environmental actor, a group of students and staff from the Department of Development Studies at the University of Vienna, under the direction of Dr Antje Daniel, decided to investigate FFF protests in Vienna by preparing observation protocols of the protest events, conducting a series of short interviews, and carrying out a survey. The survey study is part of an international research project investigating the FFF climate movement on a global level (de Moor et al. 2020).

This paper is focused on one specific protest event: the demonstration that took place on May 31st 2019 in Vienna, which marked the end of a nation-wide climate action week, organized by FFF Vienna. Greta Thunberg took part as a special guest. The official title of the demonstration was ‘Streik mit Greta – No Future On a Dead Planet’ (Strike with Greta). It was meant as a

¹ Greta Thunberg is a 17-year-old climate activist from Sweden. She initiated the FFF climate movement in 2018.

² All the following direct and indirect citations from the work of other scholars have been translated freely by the authors of this paper from German to English.

³ See Facebook events of Fridays for Future Vienna: https://www.facebook.com/pg/FridaysForFutureVienna/events/?ref=page_internal (17.05.2020).

⁴ See Fridays for Future Austria: <https://fridaysforfuture.at/regionalgruppen> (17.05.2020).

⁵ See Fridays for Future Austria: <https://fridaysforfuture.at/forderungen> (10.02.2020).

reference to the extinction of species, the conservation of biodiversity, mass animal mortality, excessive resource consumption in agriculture, marine pollution, and the inaction of policy makers. According to the organizers, about 35,000 people⁶ participated in the demonstration. This event marked the peak of environmental activism in Austria back then. The protest march started at Heldenplatz – the starting point of many FFF protests in Vienna – and ended with a final rally at Schwarzenbergplatz with a speech by Greta Thunberg.

In order to better understand the adherent's motives for participating in the protests, it is worth taking a closer look at what the protesters perceive as the causes and consequences of the climate crisis. Therefore, this paper we will seek to answer the following research question:

How do the participants of the climate strike on 31st May 2019 in Vienna perceive the cause of the climate crisis, and whom do they define as being responsible for the crisis and its solution? To answer the question, the research team conducted quantitative surveys and qualitative semi-structured interviews (mixed-method approach) during the protest march.⁷ The collected data was analysed through the lens of framing theory, primarily through the lens of the diagnostic and prognostic frames.

The working paper is structured as follows: After the introduction, the authors outline the framing theory and its relevance for social movement studies in chapter two. In chapter three, the methods which were used for the research are described. Since FFF is often described as a youth movement, the authors discuss the age structure of the FFF protesters in Vienna on the 31st May 2019 in the fourth chapter. Subsequently, in chapter five the quantitative and qualitative data are analysed through the lens of framing theory, in order to show how the protest participants regard the climate crisis and its causes, responsibilities, and possible solutions. In the last section, the authors discuss the results in a reflexive way and conclude with proposals for further research.

2. Climate activism through the lens of framing theory

Research on social movements is interdisciplinary and consists of single approaches with different analytic focuses (della Porta/Diani 2001, Hellmann 1998, Snow et al. 2010). These approaches focus on the importance of resources for organizing protests, the interpretation of protest demands, the emergence of a collective identity, and the political and social contexts in which movements operate. To understand the motivation, causes and prospective solutions of a social movement, the framing theory is an appropriate concept.

From a constructivist perspective, framing theory addresses the interpretation and discursive strategies of social movements (Snow/Benford 1988, 1992). In line with Goffman's framing concept (Goffman 1977), Snow and Benford (1988) developed the framing theory. Based on

⁶ Estimates of the number of participants vary greatly. While the FFF organizers in Vienna stated 35,000 participants, the local police reported that 5,000 people participated in the final rally at Schwarzenbergplatz. See ORF 2019: <https://orf.at/stories/3125225/> (08.08.2020).

⁷ The perspectives of the protest participants analysed in this working paper might differ from the demands of FFF Austria as an organization.

the premise that people act on the basis of attributed meanings, so-called frames can be defined as collective patterns of interpretation in which certain problem definitions, causal descriptions, claims, justifications and value orientations are brought into a more or less consistent context in order to explain criticism and to legitimize the demands of a social movement (Neidhardt/Rucht 1993: 308). For instance, understanding the way a social movement defines a problem and its causes is important because in the course of the protest, social movements develop an interpretational sovereignty and legitimize their perception of a problem. Therefore, social movements define what can be perceived as a problem; they distribute and legitimize the definition of a certain problem. Frames are also used by social movements to formulate the goals of the movement. In addition, frames serve as a benchmark for daily actions and the mobilization of adherents. Thus, frames connect social movements with the broader society by raising awareness of problems, and by developing and demonstrating possible solutions. In doing so, social movements manifest themselves as significant civil society actors who shed light on social, political or economic problems and contribute to finding an adequate way forward. Therefore, social movements complement existing possibilities and institutions for citizens' political involvement.

In sum, "collective action frames are action-oriented sets of beliefs and meanings that inspire and legitimate the activities and campaigns of a social movement" (Benford/Snow 2000: 614). The construction of frames is understood as a dynamic process, so that frames change and adapt constantly. Beyond framing, Snow and Benford emphasize further conditions that contribute to the success of a framing process. For instance, the demand must have a certain *centrality* or relevance – and thus be linked to existing systems of values and beliefs. Furthermore, the protest should have a certain *range* and *interrelate* to the broader society (Snow/Benford 1988: 205-207).

Snow and Benford (1988: 199-203) distinguish three frames: diagnostic, prognostic, and motivational frames.

By using the **diagnostic frame**, social movements define a problem and determine those responsible for their grievances. The diagnostic frame constitutes an individual experience of dissatisfaction as part of a social problem. Dramatization of the problem is part of a common strategy to achieve sovereignty of interpretation.

The **identity frame** or **motivational frame** creates a sense of community among the participants by emphasizing motives of participation and solidarity and deliberately delimiting the social movement from other groups.

The **prognostic frame** or agency frame refers to the strategies, tactics or goals of social movements to change the situation and solve the defined problems.

Furthermore, master frames are of importance for the success of social movements since they create an overarching frame to define a problem. Master frames are shared by several movements (Snow/Benford 1992: 138-141). Climate justice is such a master frame. In environmental activism we are witnessing a shift from the master frame climate change to climate justice (Della Porta/Parks 2013: 45). The climate justice wing of environmental

movements, to which the FFF belongs, calls for a radical change in climate policy compared to previous movements, which starts not only with sustainable environmental policy measures, but also with a fundamental change in the capitalist economy and a profound change in lifestyle (della Porta/Parks 2013: 45-50, Rootes/Nulamn 2015). According to Brand and Hirsch (2012: 62), climate justice means that everyone on earth, regardless of national affiliation, age, gender, race or religion, must be granted the same rights to use the atmosphere, and that the pollution of the atmosphere with greenhouse gases must be limited. The United Nations Convention on Climate Change serves as a guideline for the implementation of climate justice. Since the 1970s, environmental movements have contributed significantly to shaping climate conventions. However, the goals of the UN conventions have not been achieved (de Moor 2018). Against this backdrop, it is interesting to investigate how the FFF movement frames climate justice and uses it as a master frame.

As this paper aims to answer the question of how the strike participants perceive the causes, responsibilities and solutions of the climate crisis, only those frames which cover these issues will be used, namely the diagnostic and prognostic frames. The identity or motivational frame will not be discussed in this paper, as it is not in the focus of the research question. The diagnostic and prognostic frames will be examined in order to understand why the FFF movement emerged, what the participants see as the main causes of the climate crisis (diagnostic frame), and who is responsible for causing the problems from the perspective of the movement (diagnostic frame). We will also provide an in-depth study of FFF ideas regarding who can solve the climate crisis (prognostic frame).

3. Methods

To answer the research question of how the protest participants of the climate strike on 31st May 2019 in Vienna perceive the cause of the climate crisis and whom they define as being responsible for the crisis and its solution, a mixed-method approach consisting of a survey, short interviews and participant observation was applied. The aim was to analyse and correlate the results of the different data collection methods to generate a multi-perspective picture of the protesters' opinions. For ethical and transparency reasons, the FFF organization team was previously informed about the data collection, our overall interests, and our research goals.

The quantitative survey was primarily conducted in order to collect general data about the participants' mobilization, their motivations, their political and civil commitments and their personal attitudes. Furthermore, qualitative semi-structured short interviews were also conducted during the protest event and were mostly utilized to provide a deeper and more detailed understanding in addition to the results of the survey. The recording of the protest event through the creation of participatory observation protocols served mainly to generate a general overview of its progress, in terms of both form and content. Altogether, 119 questionnaires and

13 short interviews were collected, and two participatory observation protocols documented the protests.⁸

According to Kaase, the survey method was especially developed to understand and to describe opinions, positions, and behaviour patterns of populations within their social and political contexts (see Kaase 1999: 3). In order to ensure comparability of the data, the questionnaire was standardized. To verify its feasibility, ambiguities in implementation and content were resolved by conducting a pre-test.

Based on the systematic sampling strategy known as the ‘pointers method’, potential interviewees were chosen. For this, the survey team was divided into two groups, pointers and interviewers. The task of the pointers was to select potential respondents using a predetermined counting method (i.e. every fifth person in every fifth row). The task of the interviewers was then to conduct the survey with the selected persons. According to van Stekelenburg, by using this method, a potential bias based on personal sympathies can be eliminated and thus representativeness can be guaranteed (see van Stekelenburg et al. 2012a: 20-21). This method emerged out of the international study called “Caught in the Act of Protest: Contextualizing Contestation Project. (CCC Project)” (see van Stekelenburg et al. 2012b: 249).

In view of the ambition of comparability and standardization of scientific data, the method was also chosen because at the same time an international survey study was applying the same method to analyse FFF movements.⁹

To process and descriptively analyse the collected survey data, the research team used the statistical Data-Software IBM SPSS Statistics. Descriptive data analysis allows large data sets to be transformed so that they are easier to read and compare (see Krapp/Nebel 2011: 19).

In addition to the survey, semi-standardized short interviews – consisting of 5 main questions – were conducted at the protest event on 31st May 2019 in Vienna. As mentioned above, these were mainly used to gain a more precise and deeper understanding of the attitudes and motives of the protest participants and the FFF movement in general. According to Hopf, the semi-standardized interview enables a particularly high degree of flexibility with regard to the short-term adaptation of the interview to the respective interview situation and person, especially with regard to the exact formulation and sequence of the questions (see Hopf 2015: 351). Since the interview situation at protest events is often stressful and loud, as well as quickly changing and therefore difficult to plan, this form of interview is ideal, particularly in view of the standardization and comparability of the collected data. The interviewees were selected according to the criterion of a balanced age distribution. A further aim was to obtain a representative picture of the diversity of opinions and protest sub-groups and organizations participating in the demonstration.

⁸ This study is part of the “Forschungswerkstatt Protest”, which addresses environmental and climate activism in Vienna. Research was also conducted for the Global Climate Strikes in September and November 2019 and September 2020. See <https://ie.univie.ac.at/forschung/forschungswerkstatt-protest/>. For further information, see Daniel/Deutschmann 2020, Bohl/Daniel 2020.

⁹ See international comparative study by Moore et al. 2020.

To analyse the short interviews, the research team used a coding system based on grounded theory (see Martin et al. 2018: 11). In a first round of analysis, a standardized code tree was developed based on the theoretical contextualization of the research field and the responses of the interviewees by means of discursive exchange within the research group. In a second phase, the code tree was then applied to all interviews as an analysis pattern. According to Böhm, the use of a code system for analysis can be seen as decoding or translating the data by reconciling it with the naming of already existing concepts and developing further explanations and discussions of these concepts (see Böhm 2015: 476). During the analysis, colleagues from the “Forschungswerkstatt” assisted the research team. To optimize and standardize the coding and analysis process, the software programme MAXQDA was used.

4. Age structure of the protesters

For a better understanding of the quantitative and qualitative data and the in-depth analysis, it is necessary to briefly outline the age structure of the protest participants. The age characteristic was specifically chosen since the FFF movement is, in comparison to other movements, a very young movement (see Fig. 1). The age structure is therefore of special interest.

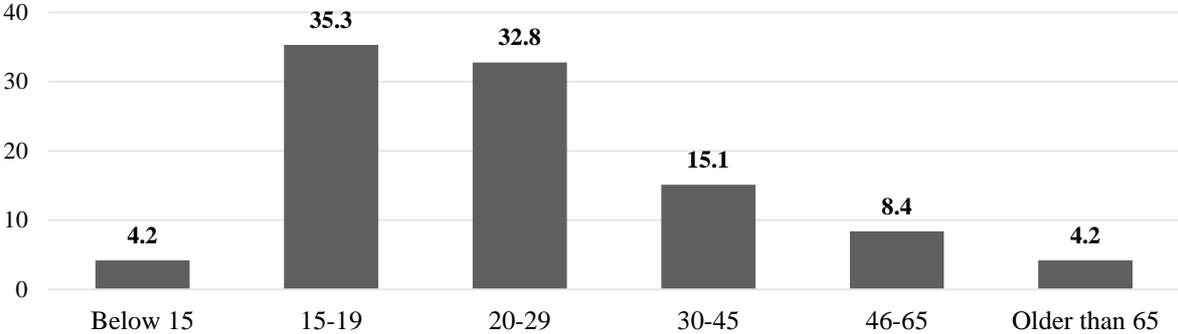
In general, it must be noted that climate movements are a young but not a completely new phenomenon. The fact that young people create a movement is not unique. Protests and movements have often been initiated by young people, as in the environmental activism of the 1970s and 1980s in Austria¹⁰. Nevertheless, the extent of young people’s current commitment to the environment is considerable: the movement is especially characterized by the fact that it is led by young people – predominantly school children and students – and thus by a generation that has been said to be apolitical (see Bohl 2019).

Nevertheless, FFF also gets support from a large group of actors. In the course of the ever-increasing debate on anthropogenic climate change and its effects on the earth, and the first drafts of global climate models since the 1960s, a number of groups and networks were founded in response to the pending crisis. Their goals were to find solutions to the problems and to initiate political action (see Dietz/Garrelts 2013: 15). However, this was not one homogeneous global movement, but a development of different multi-layered groups and networks sharing some main goals but adding different personal (personal to the group) goals (see Dietz/Garrelts 2013: 17). Therefore, this global climate strike is of great importance, as it shows an unequalled dimension of national and international coalition between groups all over the world, as seen on the 31st May 2019. One of the actors involved in the global climate strikes is the Austrian climate alliance (*Klimastreik.at*). The actors within the alliance benefit from each other in terms of know-how, and material and financial resources, and organize the global climate strikes together. In addition to subgroups such as Scientists for Future, Teachers for Future, Parents for Future, Farmers for Future, Babies for Future, or Religions for Future, other groups outside the FFF branding are also joining the mass protest events. In particular, these other groups are

¹⁰ For the history of climate activism and its relation to FFF see Daniel/Deutschmann 2020.

environmental organizations and non-profit associations. The big climate strike events (so-called ‘global climate strikes’) thus appeal to various different groupings within society. Due to the variety of actors involved in the global climate strikes, it must be assumed that they have a considerable influence on the average age of protesters participating in the global climate strikes, as compared to the weekly Friday strikes. The global climate strikes differ from FFF’s weekly school strikes, which mainly involve pupils, students, and a few other people such as parents and teachers. Although the FFF movement was initiated by pupils and students, it sees itself as a climate movement that seeks to address and involve the whole of society.¹¹ Thus, the global climate strikes in Vienna, which are attended by tens of thousands of people, involve people of all ages who want to fight for climate justice.

Figure 1: Age groups (in percentage)



Source: Own data from the survey in May 2019 (N = 119).

Looking at the age structure during the demonstration on the 31st May 2019, young people dominated. 39.5% were younger than 20. The age cohort under 30 made up 72.3% of the protest participants, the clear majority. In comparison, 15.1% of the protesters were between 30 and 45 years old. The generation older than 65 years constituted 4.2%. In sum, only 27.7% of the protest participants were older than 29 years (see Fig. 1).¹² This age structure will be used for the analysis in chapter 5.

5. Causes, Responsibilities and Solutions

In order to better understand the participant’s motives for protesting, it is worth taking a closer look at what the protesters perceive as the causes and consequences of the climate crisis. In terms of framing theory, we consider here the diagnostic frame, which highlights the way protesters perceive the causes of the climate crisis. Considering the prognostic frame helps us to see who is perceived by the FFF protest participants as being responsible for solving the problem. The framings will be differentiated along age groups. Differences between the age groups reveal how protesters translate them differently into action. It is important to note that

¹¹ See <https://fridaysforfuture.at/about> (07.08.2020).

¹² This figure and all of the following figures have been generated by the research team and are based on the data collected during the research.

the framings presented provide a framework for orientation and action in order to understand the motivations and activities of the protest participants. The framings are not always used simultaneously and equally during the protests, and their relevance changes in the course of the protest. Certain framings are considered more important by some protesters than by others.

At this point it should be mentioned that in their responses, the interviewees did not always clearly differentiate between who is responsible for having caused the climate crisis and who is responsible for its solution, which makes allocation of the answers between the diagnostic and the prognostic frame blurred. In this context, we have picked out the dominant framing in the statements.

Nevertheless, the following analysis offers an important contribution to understanding shared interpretations of the protest participants regarding reasons for the climate crisis, who is responsible for it, and to whom the problem areas are assigned.

5.1. Diagnostic frame: The climate crisis and its causes

In terms of framing theory, social movements use the diagnostic frame in order to define what the problem is, the cause of the discontent felt by the activists and the reason for the formation of the movement. To define the problem, activists use a certain kind of language that includes dramatization of the problem and legitimization of the movement.

In general, global warming is known to be mainly a consequence of burning fossil energy sources such as oil, gas and carbon in order to power modern-day societies (see Dux 2019: 236). According to scientists, the growing level of greenhouse gases (i.e. CO₂ emissions) leads to a point at which the gases trap too much of the sun's energy, at the same time hindering heat from escaping from the atmosphere, which is known as the 'greenhouse effect'. On-going global deforestation means that less CO₂ can be naturally bound. The term climate crisis – which is actively used by the FFF movement – refers to this process of global warming, but at the same time goes further by emphasizing that the earth and humanity itself are seriously threatened. In contrast to previous movements, the climate justice movement calls for a radical change in climate policy, which not only requires the implementation of environmental policy measures, but also a fundamental transformation of the economy and a profound change in lifestyle (della Porta/Parks 2013, Rootes/Nulman 2015). According to Brand and Hirsch (2012: 62), climate justice means that all people on earth have the same rights to use the environment. This is why the FFF movement positions itself as a climate justice movement.¹³

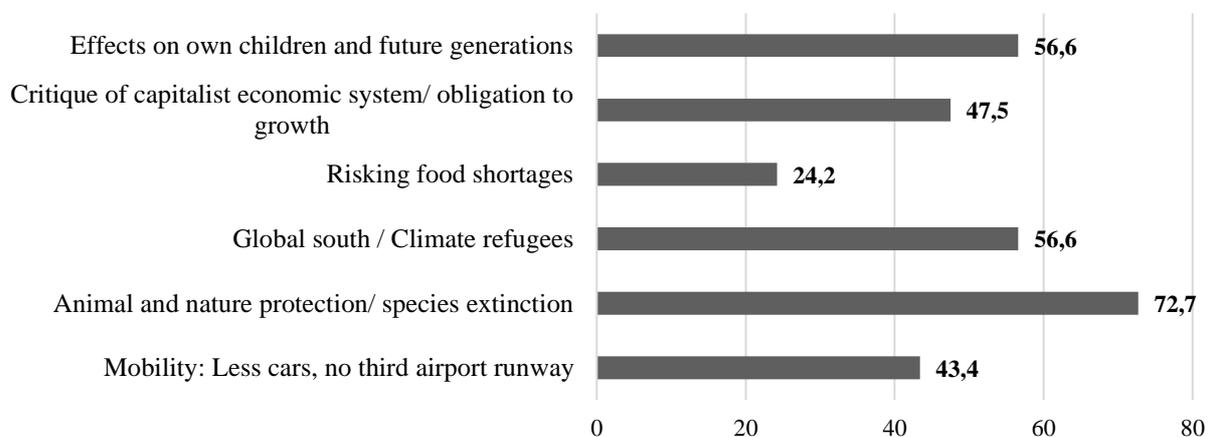
Global warming due to human activities and its current foreseeable consequences are thus not a question of faith or opinion, but facts based on scientific evidence (see IPCC 2018). Since a certain level has already been reached, people on a global scale are being directly and noticeably affected. On a global level it is especially the countries of the Global South that suffer most from climate impacts, which are at the same time those countries that are least responsible for causing climate change (see Brändlin 2019). The main climate impacts include extreme weather

¹³ See <https://fridaysforfuture.at/about> (11.08.2020).

events, such as heat waves, floods, extensive wildfires, long-lasting droughts, the melting of the Arctic ice, rising sea levels and the extinction of plant and animal species.¹⁴ Hence, the question is: what effective solution scenarios can be developed? According to the Australian Academy of Science, the most effective solution could be a combination of reducing greenhouse gas emissions, removing them permanently from the atmosphere, doing solar geo-engineering to reduce and limit the amount of sunlight reaching the earth, and learning how to live with and adapt to the risks related to climate change.¹⁵ The FFF movement uses these scientific results for defining the causes of the climate crisis. The role of science is also evident in the slogan “Unite behind the Science”, and in the intensive alliance with the Scientists for Future movement, whose members regularly speak at FFF demonstrations.

The protest can be legitimized from a scientific perspective because the phenomenon of climate change has been proved to be a real existing problem. A second kind of legitimation lies in placing emphasis on the importance and scope of the problem. In this context, the protest participants were asked which consequences of climate change were the most important. Figure 2 shows that 72.7% of the respondents mentioned protection of animals and plants or the extinction of certain species. 56.6% were worried about the effects climate change will have on their own children and future generations. A similar percentage of the respondents were worried about the consequences for the Global South and climate refugees (multiple answers of max. 3 were possible).

Figure 2: Most important climate related topics (in percentage)



Source: Own data from the survey in May 2019 (multiple answers, N = 298).

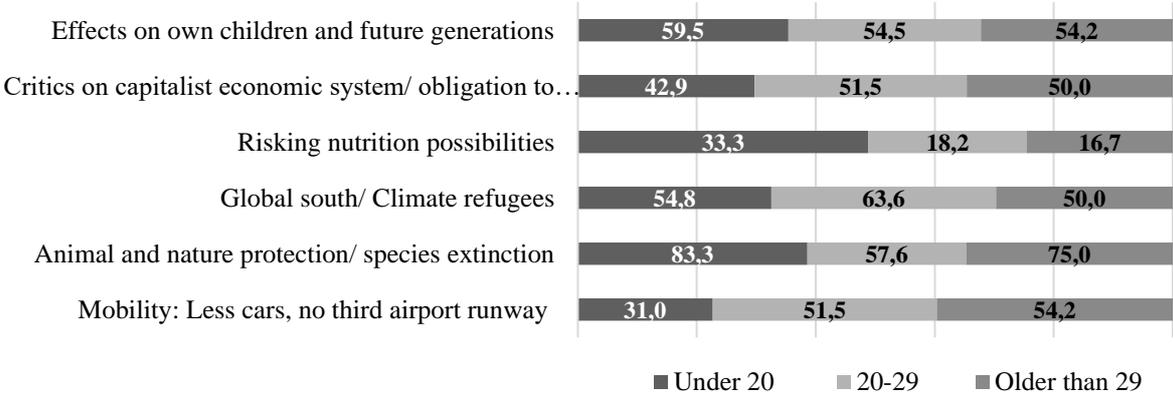
Relating these results to the age of the protest participants (Fig. 3), it can be seen that 83.3% of the protesters below 20 mentioned animal and nature protection or species extinction as the main topics, followed by 75% of those over 29 and 57.6% between 20 and 29. In addition, Figure 3 shows that the age group under 20 seems to worry more about risking food shortages

¹⁴ See Europäische Kommission (n.d.): https://ec.europa.eu/clima/change/consequences_de (22.01.2020).

¹⁵ See Australian Academy of Science (n.d.): <https://www.science.org.au/learning/general-audience/science-climate-change/9-what-does-science-say-about-climate-change-options> (22.01.2020).

(33.3%), compared to those between 20 and 29 with 18.2% and 16.7% of those above 30. The topic of mobility, including less cars and the prevention of big local infrastructure projects such as a third runway at the airport of Vienna, seems to be a concern of older generations, with only 31% of those below 20 compared to 51.5% and 54.2% of those between 20 and 29 and over 29. With regard to effects on future generations, the response data is fairly balanced between 54.2% and 59.5%, which shows that this is a concern of all generations alike. Assessing these results gives a first impression of the motives and values behind the FFF movement participants in Vienna.

Figure 3: Most important climate related topics * Age groups (in percentage)



Source: Own data from the survey in May 2019 (multiple answers, N = 298).

In this section we have used framing theory to show how protests can be legitimized by defining and emphasizing a problem. One way of doing this is to refer to scientific findings, the other by gathering and reflecting on people’s opinions on protest-relevant topics. The concept of framing can also help to clarify the question of responsibility for the detected problems, which will be done in the following chapter.

5.2. Diagnostic frame: Who is responsible for the climate crisis?

Part of the diagnostic frame is to explore who is responsible for the climate crisis from the perspective of the FFF protesters. From a social movement perspective, it is important to define responsibilities, in order to identify the problem maker and define who are the relevant counterparts for solving the problem. In this section, we will mainly consider the interviews in which the protest participants were asked about responsibility for the climate crisis. With regard to the parties responsible for the climate crisis, the answers given by the interviewees were assigned by the research team to the categories *society as a whole, one’s own behaviour, politics, the economic system and science*. These broad categories are useful for figuring out the different relevance of causes and problem-solving capacities in society and weighing them against each other. This question is not about finding concrete solutions.

One interviewee stated that “all of us” (Interview A1) are responsible for the climate crisis. Other respondents shared this opinion, while a young adult highlighted that politicians bear a greater responsibility since they are in a position to directly change the framework. The answer of one young adult demonstrates the blurring between the diagnostic and prognostic frames:

I can see a special responsibility on the part of those in power, on the part of politicians, because they have the direct opportunity to change something. I also see responsibility generally with everyone who has any influence on many people, [...] but in the end it is also with every single person in everyday life. (Interview B2)¹⁶

A student argued that politicians are responsible for the climate crisis:

I just believe that many politicians have waited too long to take this issue seriously and perhaps would rather have secured a few jobs, which are not secure in the long term anyway. There has to be a rethink of politics. (Interview B3)

A mother stated that actually all are responsible for causing the climate crisis, but that the economic system bears a higher responsibility:

I also see myself as responsible, actually, we all are, but I still believe that there is an imbalance in the system and that economic growth is much more important than the well-being of the people, at the expense of the people. (Interview B6)

The same mother connected the economic system with the issue of unfair global production practices and mentioned issues which are often connected within the term climate justice, meaning that the wealthy nations, often located in the Global North, mainly cause the climate issues, making countries in the Global South suffer the consequences more than those who create them. She explains:

Our economic system is built on a very unjust basis, but we don't feel its scale, but in countries like India, countries where there are refugee problems, it's as if we are causing a lot of things we don't feel and in the bubble of prosperity at the expense of others. [...] I would like to see more justice there. (Interview B6)

Individual behaviour was also said to play a certain role. As one student argued, we do have an impact on the climate crisis when we decide whether to fly or not, or whether to eat meat or adopt a vegetarian lifestyle. Furthermore, transnational corporations and politicians were pointed out as being responsible for the climate crisis, and it was argued that they are doing too little for climate justice (Interview B7). Most interviewees saw a linking of general societal responsibility and other stakeholders, like political decision-makers, the economic system and individual behaviour. This intertwining is demonstrated in a statement by a participating adult:

Consumers expect an extensive range of products which commercial producers seek to provide, and even stimulate demand, but politics has failed in numerous instances to regulate general conditions, because business influences politics. All three parties are responsible for the crisis. (Interview A1)

¹⁶ Since the survey and interviews were conducted in German, the citations are literal translations into English.

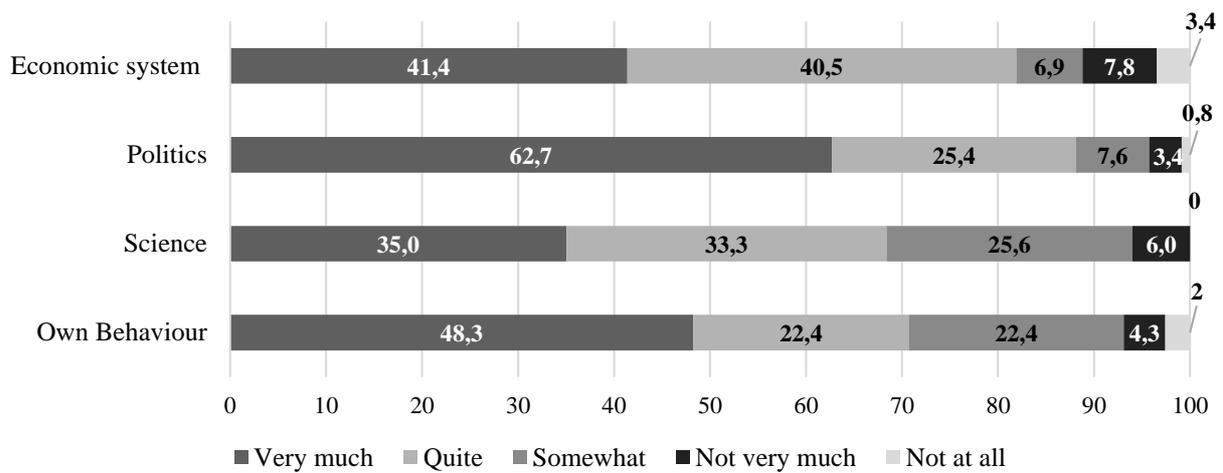
In summary, a framing analysis shows that responsibility for the climate crisis, from the perspective of the FFF protest participants, is distributed and intertwined among several actors within society as a whole. Political decision-makers, the economic system, but also individual citizens, especially in their role as consumers, can be identified as the main responsible actors, but there are differences in the weighting of the responsibility of these actors. No significant difference between age groups can be observed. Against this background, it is important to examine who is most likely to be able to solve the climate crisis from the perspective of the FFF protesters.

5.3. Prognostic frame: Who can solve the climate crisis?

The prognostic frame refers to the strategies, tactics, or goals of social movements in respect of changing and solving the addressed problems. The question arises who – from the perspective of the FFF participants – is able to solve the climate crisis. Social movements like FFF want to bring about change, and this requires someone who will take this task into their hands. Since the goal is a solution, in this case the reduction of human influence on climate, the protesters were asked who they think can contribute to achieving this. In this section, qualitative data from the short interviews and surveys conducted during the climate strike are used to complement the above picture of the views of the protesters.

During the survey on the climate strike, we asked protest participants who they think is able to solve the climate crisis. Each respondent assessed the importance of ‘the economic system’, ‘politics’, ‘science’ or ‘their own behaviour’ for solving the crisis, on a scale ranging from ‘very much’ to ‘not at all’ (see Fig. 4). As Figure 4 shows, most strikingly there is a high level of agreement that all four areas (economic system, politics, science, own behaviour) are essential parts of a solution for the climate crisis. Nevertheless, the protesters considered the greatest competence and therefore responsibility to be in politics, with 62.7% stating that political decision-makers are ‘very much’ able to solve the crisis. In contrast, the potential of science for solving the crisis was said to be low, with only 35.0% selecting the option ‘very much’. The economic system is considered the second most important factor after politics when the categories ‘very much’ and ‘quite’ are taken together. Referring only to the category ‘very much’, the economy is ranked third after politics and own behaviour. Nevertheless, a small difference of about 10% can be observed between the categories politics and economic system, on the one hand, and science and own behaviour on the other.

Figure 4: Who can solve the climate crisis? (in percentage)



Source: Own data from the survey in May 2019 (N = 118).

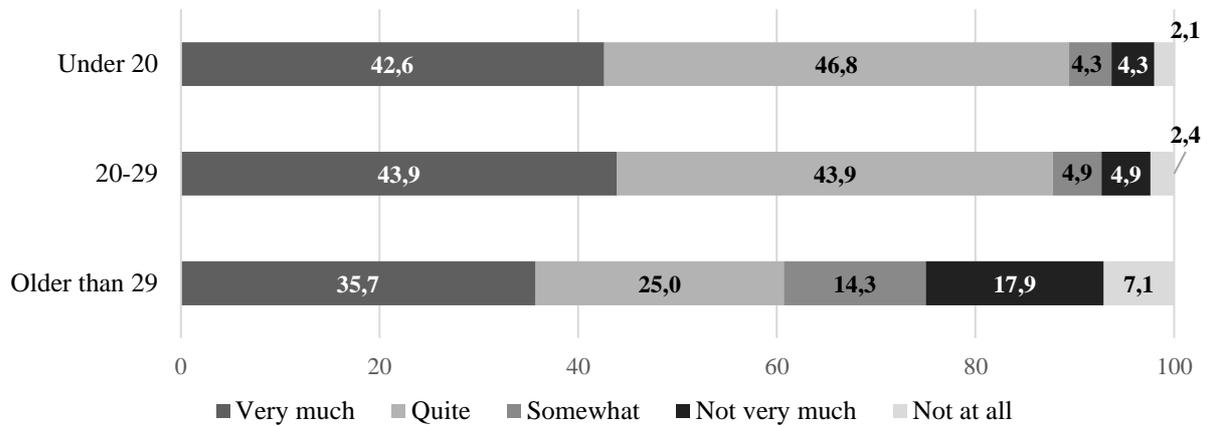
To get a more solid picture, we combined the results of the response categories from Figure 4 – economic system, politics, science and own behaviour – with the answers of the protest participants in the short interviews regarding the question of who is most able to solve the climate crisis. In addition, we differentiated the response behaviour by age group, in order to show variations in the perception of problem-solving competencies depending on age.

As a first result of this data cross-checking, we found that the qualitative data required a further response category: ‘whole society’. Thus, we see how qualitative data can complement the survey results and show its limitations.

5.3.1. Economic system

The above results show that, considered through the lens of the prognostic frame, the FFF movement should – according to the protesters’ opinions – take the economic system seriously into account as a major actor in solving the climate crisis. By differentiating the answers on competence according to age group, namely adolescents (below 20 years), young adults (20-29 years) and adults (30+ years), the following results are obtained: Most remarkable is that adolescents (89.4%) and young adults (87.8%) see changes in the economic system as having a high or quite high potential for solving the crisis, whereas adults do not. Among the adults, 39.3% of the respondents believe that the economic system has only ‘somewhat’ or ‘hardly/not at all’ the potential to solve the crisis (see Fig. 5).

Figure 5: Changing the economic system can solve the climate crisis *
Age groups (in percentage)



Source: Own data from the survey in May 2019 (N = 116).

Looking at the results of the interview analysis in addition to the quantitative data, a more detailed and complex picture of the protesters' opinions becomes apparent. On the one hand, in general, the capitalistic economic system was not regarded as being able to provide solutions to overcome the crisis. On the other hand, concrete suggestions for change were put forward. In this context it was stated, for example, that the economy needs to be more regulated, because capitalism – in the eyes of some respondents – exploits resources to the maximum extent. The consumption of resources needs to be curbed, as argued in the following quote by a student:

I am of the opinion that capitalism does not function as it is at the moment. In other words, that it must be regulated at least much more strongly so that climate protection is implemented in the end. Be it that you put taxes on climate-damaging products or whatever. So, there are enough possibilities to limit it a bit, because capitalism is based on using resources, as much resources as possible. (Interview B3)

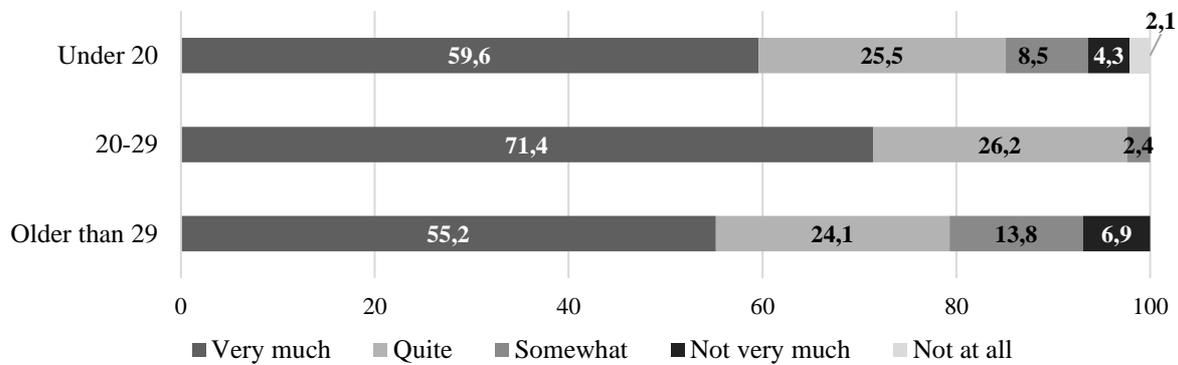
The following slogans – amongst others – were seen on banners and posters in the protest march: 'Alarm - Capital Terror Kills Mother Earth'; 'Capitalists, Environmental Destroyers, Ignorants [...] Step down'; 'Economy can adapt, the polar caps can't'. (Observation protocol of 31st May 2019)

5.3.2. Politics

Through the prognostic framing lens, we see that politics and political decision-makers were regarded by the protest participants as having the greatest potential impact on the climate crisis. However, different views between the age groups were noticeable. Figure 6 shows three age groups, namely adolescents (below 20 years), young adults (20-29 years) and adults (30+ years). Of the young adults, 71.4% agreed 'very much' that politics and political decision-makers play a major role in solving the climate crisis. This percentage increases even more to 97.6% when 'very much' and 'quite' are taken together. 55.2% of the adults consented 'very

much' to the positive capacity of political decision-makers, but together with the option 'quite', they showed the lowest approval rate of 79.3% of all three age groups.

Figure 6: Politics can solve the climate crisis * Age groups (in percentage)



Source: Own data from the survey in May 2019 (N = 118).

As seen in the findings of the survey, 'politics' and political decision-makers is the actor most frequently mentioned by the interviewees as being able to solve the climate crisis. While political decision-makers are considered responsible for not having addressed climate change earlier, they are at the same time considered to be the only ones able to set the regulatory framework. According to a young adult, an individual can only change small things, but political decision-makers have the ability to change the situation on a larger scale:

It is especially important that politicians do something, because the individual can do little to change something ...how cheap meat is or how expensive electricity is and so on. These are things that have to come from politics in particular. (Interview B2)

A further demand for change concerns norms and values: protesters stated that political decision-makers should be transparent and honest. Populism and self-interest should not be allowed to influence policies. As one interviewee argued:

We need politicians [...] where one says ok, there is transparency, there are hopefully truths and not just populist power and interests, because we have simply enough of that. I am so sick of it; I really just want to believe what I am told and that is why we need politicians who simply focus on us and focus on life and not on power. (Interview A1)

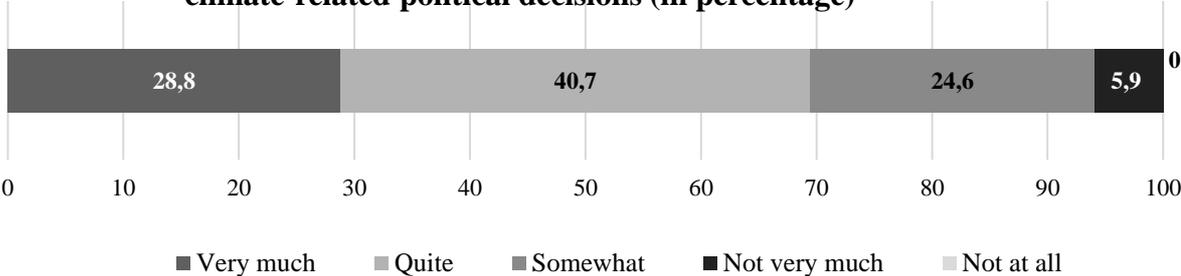
The expectations in respect of political decision-makers are thus very high and involve a clear demand for better climate policies. At the same time, there is criticism, for instance that politicians should listen more closely to the demands of their voters, which means above all that they should keep their promises. In this context, the following chapter examines the protesters' perceptions of the degree to which their protest can influence political decision-makers.

5.3.3. Impact of protesters on politics

As mentioned above, politics and its decision-makers met with the largest agreement among the participants as the actors who are primarily responsible for finding solutions to the climate crisis. In this regard, we asked the participants how confident they were that the protests would actually have an impact on current climate policy.

The survey shows that 28.8% of the participants were ‘very much’ of the opinion that the protests can influence political decision-making processes. Combined with the results of the category ‘quite’, it was even 69.5%. Only 5.9% of the participants doubted that the protest would have any impact on political decisions, and nobody believed that it would have no impact at all (see Fig. 7).

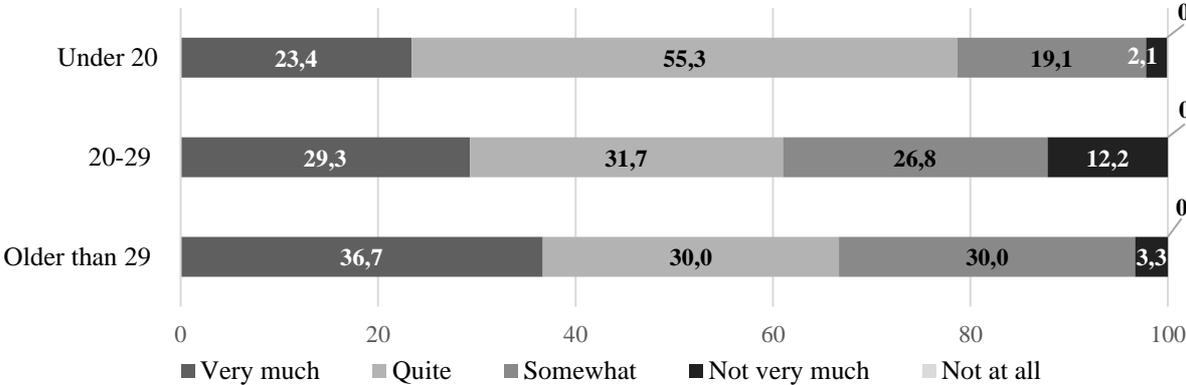
Figure 7: Confidence concerning the impact of the protest on climate-related political decisions (in percentage)



Source: Own data from the survey in May 2019 (N = 119).

A look at the response behaviour of the protesters along age groups shows that the most optimistic, those who answered ‘very much’, were adults older than 29, of whom 36.7% were of the opinion that the protests would have an impact on political decision-making processes. However, adolescents younger than 20 were the most positive if the vote for ‘quite’ is added (very much 23.4% and quite 55.3%) (see Fig. 8).

Figure 8: Confidence concerning the impact of the protest on climate-related political decisions* Age groups (in percentage)



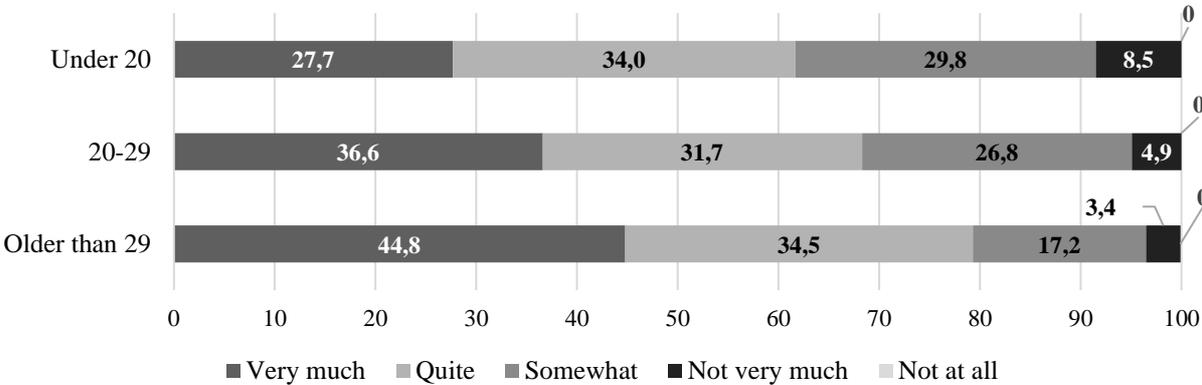
Source: Own data from the survey in May 2019 (N = 118).

In sum, it can be said that the participants were quite optimistic that the protest would have an impact on political decision-making processes and the resulting policies, with the group of adults being the most positive and very confident about the impact.

5.3.4. Science

Regarded from the framing perspective, the role of science is ambivalent. Of the four categories ‘own behaviour’, ‘politics’, ‘economic system’ and ‘science’, science – with ‘very much’ having a consent rate of 35% – received the least support as potential solver of the climate crisis (see Fig. 9). Especially interesting here is the age gap. In contrast to the categories ‘politics’ and ‘economic system’, where they showed the most reserved attitude, adults were more positive about science than the other age groups. While 79.3% of the adults regard science to be ‘very much’ or ‘quite’ able to solve the crisis, this percentage decreases among young adults with 68.3% and adolescents with 61.7%. Thus, the survey shows that science is considered as a minor player in respect of potential solutions. Even more significantly, none of the interviewed participants mentioned science as an actor for solving the climate crisis. However, on a banner this slogan was seen: “What the youth tells us, science has been telling us for a long time. We must act immediately! It's not too late now.” (see observation protocol of 31st May 2019)

Figure 9: Science can solve the climate crisis*Age groups (in percentage)



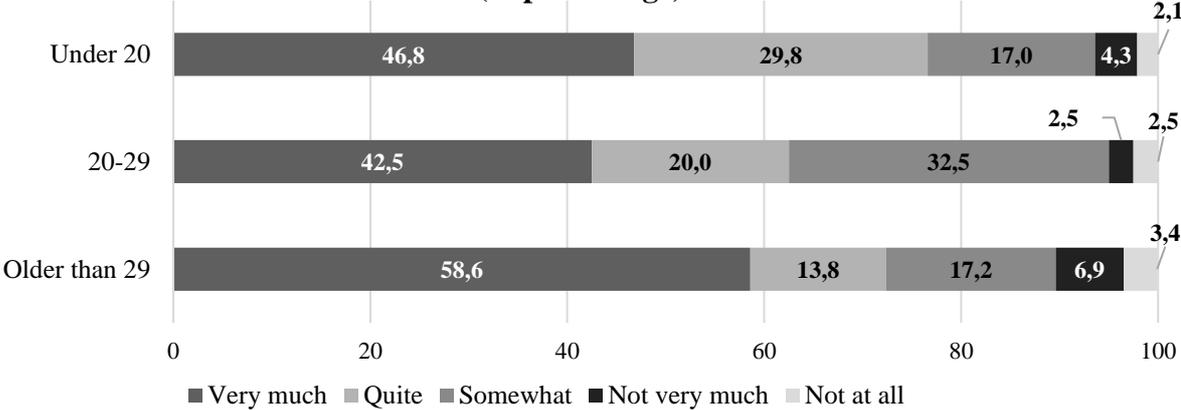
Source: Own data from the survey in May 2019 (N = 117).

Although science is not perceived as an important actor for solving the climate crisis, scientists play a significant role in the movement. The FFF movement refers to science for its definition of the problem (see above), and scientists are important allies. For instance, the sub-group Scientists for Future supports the FFF movement in many ways.

5.3.5. Individual behaviour

While the previous subchapters have looked at the subsystems of society, namely politics, the economic system and science as actors responsible for solving the climate crisis, in this section we analyse whether FFF protesters believe that the behaviour of individuals can contribute to solving the crisis. As can be seen in Figure 4, when looking at the percentage of participants answering ‘very much’ we see that individuals’ own behaviour had the second highest level of consent with 48.3%. As Figure 10 shows, the idea that individuals can contribute to solving the climate crisis was met with approval in all age groups. When combining the answer options ‘very much’ and ‘quite’, adolescents and adults agreed with 76.6% and 72.4% respectively, while young adults were somewhat more reserved with 62.5%. There was not much disagreement with the statement that individual behaviour plays a role in solving the climate crisis. Only 5% to 10.3% of all participants felt that their own contribution had little or no influence.

Figure 10: My own behaviour can solve the climate crisis * Age groups (in percentage)



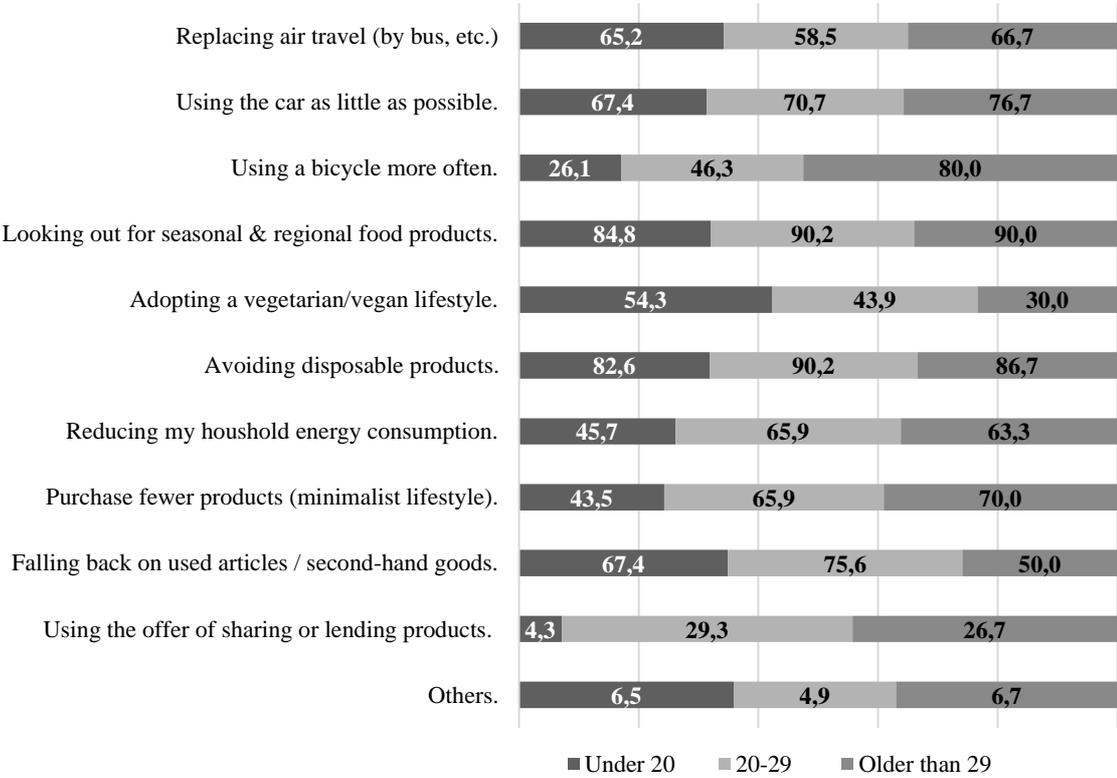
Source: Own data from the survey in May 2019 (N = 116).

Complementing the findings from the survey, the necessity for a change of one’s own behaviour was also seen by the interviewees as an important factor for solving the climate crisis. These behavioural changes relate to a wide variety of aspects, ranging from food consumption, private and public transportation, air flights, purchase of clothes, avoidance of plastics, and many more. Many protesters stated that they had already changed their individual habits. One mother reported:

I have already changed my everyday life a lot, although there is still a lot of room for improvement. I don’t have a car, I don’t want to eat meat, I don’t want to use plastic, I have joined organizations, I am looking for contact with people, but there is room for manoeuvre in all areas and what prevents me from doing so are habits and wishes. (Interview B6)

The survey participants also answered a question where possible changes in individual behaviour were presented to them. Figure 11 below (structured by age groups) shows what actions the protesters want to take individually to respond to the climate crisis. The chart shows, for instance, that 65.2% of all respondents in the adolescent age want reduce their air travel, and 84.8% want to pay attention to buying regional and seasonal food products. Buying seasonal and regional food products had the highest consent rates in all age groups. The category ‘avoiding disposable products’ shows a similarly high consent rate in all age groups. It is especially interesting to observe the distribution amongst the age groups in respect of the category ‘using a bicycle more often’: while 26.1% of the adolescents marked this answer, contrasts with 80% of the adults, which suggests that the people above 30 years of age do not use bicycles to the same extent as adolescents.

Figure 11: Individual lifestyle * Age groups (in percentage)



Source: Own data from the survey in May 2019 (multiple answers, N = 709).

Clearly, there is a high level of willingness among the protest participants to change their behaviour, whether in the field of consumption, mobility or food. However, all these categories, which were part of the survey, are only complementary measures for solving the climate crisis, as shown by our analysis of the interviews: many respondents emphasized that society as a whole has to contribute to solving the climate crisis.

5.3.6. Society as a whole

The idea that society as a whole has to be addressed in any attempt to solve the crisis relates to the perception of our society as a modern society which is defined by differentiation, meaning that there are complex forms of specialization and division of labour. For instance, the task of science is to generate new knowledge, that of the economy is to provide goods and services, and politics passes laws that everyone has to adhere to (see Kern 2008: 21-22). The reactions of these subsystems to climate change are highly selective, as they mainly see and react to those parts of the problem which affect them most. As a result, many aspects aren't seen due to the lack of an overall perspective. Although all subsystems are aware of environmental problems, no one is in charge of finding an overall solution. As Kern argues, "*In modern society there is no central competence for dealing with ecological problems*" (see Kern 2008: 43). This perception is also common among the climate protesters.

The participants of the climate strike generally perceive the solution to the climate crisis as a joint effort of the whole of society. One student argues:

This is a collective thing and I would say that this collective thing can only be solved if each individual simply stands up for the collective and makes his or her small contribution to it. (Interview B3)

Another adult comments:

On the one hand, I think that people are also responsible. So, like I said, I'm thinking about what I'm going to buy. Everyone should do that. [...] on the other hand, the government, politics are also responsible and should take responsibility. Because for example, if you buy something in plastic, why can you buy it in plastic? That should be banned. (Interview A2)

All subsystems are important for a solution, and they need to act together, as was made clear by the survey respondents and the interviewees. The FFF protest participants share this demand for unison. They say it is necessary for all subsystems to act intensively together in order to find a solution for the climate crisis. From the prognostic framing analysis, regarding possible strategies, tactics and goals of the FFF movement, it is thus possible to conclude that, there is a demand for intensification of joint cooperation and strengthening of cohesion, with an awareness of acting as a unified society.

6. Conclusion

Climate change is one of the greatest global crises of humanity and thus poses enormous challenges to societies in all areas and at all levels. According to climate scientists, certain climate tipping points exist, which should not be crossed, because otherwise unforeseeable chain reactions can occur. The possibility of reversal is uncertain, and a 'business as usual' attitude will lead to such scenarios (see Lenton et al. 2020). Hence, the pressure to solve the climate crisis is constantly increasing. In this context, the appearance of social movements can

be perceived as an expression of increased social dissatisfaction, and the emergence of FFF can be understood as a return of climate movements with renewed strength.

In this study, the authors' goal was to analyse, through the lens of framing theory, the voices and demands of the FFF participants at the protests on May 31st 2019 in Vienna, with regard to the causes, responsibilities and possible solutions of the climate crisis. In addition to a general analysis, the acquired data were also examined along the division of age groups. A mixed method approach was applied, including quantitative survey data and qualitative data collected through short interviews and observation protocols.

Below, the key findings will be summarized and embedded within the broader societal context. First, the socio-demographic data show that the protesters at the FFF demonstration in Vienna were predominantly young. Although youth are frequently drivers of social change, the average age is remarkable. These results are consistent with those of other research projects concerning FFF protests in March and September 2019 (see Sommer et al. 2019, Wahlström et al. 2019, de Moor et al. 2020). However, FFF supporters organize their protests in the frame of a climate coalition, which includes many older age groups. The differences between the age groups were taken into consideration in the study.

Analysed from the perspective of framing theory, the question of how the participants of the FFF movement justify their own protest (diagnostic frame - causes), define the recipients of their protest (diagnostic frame - responsibility), and identify ideas proposed by them for a solution to the crisis (prognostic frame - solutions), leads to the following conclusions:

Legitimation on the basis of defining the problem and its cause is based on two components. The first is science, which confirms the existence of anthropogenic climate change and its dramatic effects. The second is the identification and articulation of people's concerns and fears regarding climate change. In general, and differentiated by age groups, the fear of a mass extinction of species and of large refugee movements, and concern for the well-being of one's own children and future generations can be identified.

When asked to whom the protest is addressed, i.e. who, in the view of the protest participants, can be held primarily responsible for the climate crisis, it is remarkable that, in addition to politics, the economic system, science and one's own behaviour, the respondents emphasized that responsibility lies above all with 'society as a whole'. Although it was noted that those with greater power to shape society have a correspondingly greater responsibility, the structure and functioning of 'society as a whole' is regarded as being co-responsible. A systemic responsibility was thus emphasized here, particular attention being drawn to the failure of politics to regulate the production processes of supply and demand. In addition, reference was also made to the responsibility of individuals in their role as consumers. In this context, analysis along the different age groups showed the same results.

The question of who, from the protesters' point of view, is most able to solve the climate crisis, can be counted as a prognostic frame in terms of framing theory. In the context of social movements, a prognostic frame analysis focuses on identifying which ideas and concepts are

proposed to solve the detected problems, so that appropriate strategies and goals can be developed and formulated. In sum, the following results were obtained:

When asked to assess the problem-solving competence of politics, the economic system, science or one's own behaviour, the respondents attributed a high level of problem-solving competence to all these areas, although there is a gap of about 10% between politics and the economy, on the one hand, and science and one's own behaviour on the other. With regard to the problem-solving competence of the economy, the gap of about 25% between those under 30 years old, who ascribe great competence to it, and those over 29 years old, is particularly apparent (see Fig. 5). Concrete demands are primarily a stronger regulation of the capitalist system and the use of resources in a responsible manner.

Regarding the competence of politics to find solutions, there is a gap of approximately 10% between those aged 20 to 29, who show great confidence in politics with about 97.6% agreement (see Fig. 6), and younger or older persons. The main argument here is that politics in particular is capable of inducing change on a large scale, although the protesters' demand also implies that politics must listen more closely to them and implement their promises more consistently. Overall, the protesters are actually quite optimistic that their protests will have an impact on politics.

Even though science in general plays an important role as a source of legitimacy and support for the protests, the demonstrators assess its competence to find solutions for the climate crisis as limited. This is primarily due to the fact that although science is able to identify and highlight problems and possible solution strategies, the decision on which path to take is more likely to be made elsewhere.

The question of problem-solving competence with regard to one's own behaviour shows a gap of about 10% between those aged 20 to 29 and the other two age groups (see Fig. 10), but the general confidence can be considered high with 70.7% (see Fig. 4). The measures that protesters are taking to tackle the climate crisis are, in particular, the consumption of seasonal and regional foods, the avoidance of disposable products, and the avoidance of using a car (see Fig. 11). The analysis of the short interviews shows that the question regarding competence to find a solution to the climate crisis is also generally answered by "society as a whole" with better cooperation between its sub-systems.

The major goal of the study was to provide a basic insight from a framing perspective into the perspectives and attitudes of the FFF protest participants with regard to the causes, responsibilities and problem-solving competencies for the climate crisis. It is important to note that framing is always tied to the specific time and context. Framings change over time and they vary in the different FFF groups in Europe. Thus, the framing presented here is only a snapshot, which could be contested within the movement. The dominant framing presented here may be controversial in the movement and might be rejected by some activists. The framing results from negotiation processes within the movement, including conflicts of interests and hierarchies. While our study is not able to show which social actors contribute to which dominant framing, it is important to realise that the dominant framing presented here is

controversial in the movement. In addition, due to the temporal and spatial embeddedness of the framing, it would be for example of great interest to know whether the frames with regard to causes, responsibilities and solutions for the climate crisis have changed during the Covid-19 crisis.

References

- Australian Academy of Science: What does science say about options to address climate change?. Online: <https://www.science.org.au/learning/general-audience/science-climate-change/9-what-does-science-say-about-climate-change-options>. (22.01.2020).
- Benford, D. Robert / Snow, A. David (2000): Framing Processes and Social Movements. An Overview and Assessment, *Annual Review of Sociology* 26, 611-639.
- Bohl, Clemens (2019): Fridays for Future: Mehr als nur eine Klimabewegung. Online: <https://derdiedasrespekt.at/kommentare/2019/11/fridays-for-future-mehr-als-nur-eine-klimabewegung/> (28.01.2020).
- Bohl, Clemens / Daniel, Antje (2020): Klimaproteste in Wien. Motive und Emotionen der Fridays for Future. In: *Kurswechsel* 2020(1), 62-74.
- Böhm, Andreas (2015): Theoretisches Codieren: Textanalyse in der Grounded Theory. In: Flick, Uwe / Von Kardoff, Ernst / Steinke, Ines (Eds.) (2015): *Qualitative Forschung. Ein Handbuch*. 11. Auflage, Hamburg: Rowohlt Taschenbuch Verlag, 349-360.
- Brand, Richard / Hirsch, Thomas (2012): Was heisst Klimagerechtigkeit? Vom Prinzip zur politischen Praxis. *Jahrbuch Gerechtigkeit*, 62-71.
- Brändlin, Anne-Sophie (2019): Climate Change: The global injustice of the climate crisis. Online: <https://www.dw.com/en/the-global-injustice-of-the-climate-crisis-food-insecurity-carbon-emissions-nutrients-a-49966854/a-49966854> (10.08.2020).
- Daniel, Antje / Deutschmann, Anna (2020): Umweltbewegung revisited? Fridays for Future in Wien: Profil und Einstellungen einer neuen Protestbewegung. Online: <https://ie.univie.ac.at/institut/institutspublikationen/iepublications/> (10.08.2020).
- de Moor, Joost (2018): The 'efficacy dilemma' of transnational climate activism: The case of COP21. *Environmental Politics* 27 (6), 1079-1100.
- de Moor, Joost / Uba, Katrin / Wahlström, Mattias / Wennerhag, Magnus / De Vydt, Michiel (Eds.) (2020): Protest for a future II: Composition, mobilization and motives of the participants in Fridays For Future climate protests on 20-27 September, 2019, in 19 cities around the world. Online: <https://osf.io/asruw/> (10.08.2020).
- della Porta, Donatella / Diani, Mario (2001): *Social movements. An introduction*. Oxford & Malden: Blackwell.
- della Porta, Donatella / Parks, Louisa (2013): Framing-Prozesse in der Klimabewegung: Vom Klimawandel zur Klimagerechtigkeit, In: Dietz, Matthias / Garrelts, Heiko (Eds.): *Die internationale Klimabewegung: Ein Handbuch*, Wiesbaden: Vs Verlag, 39-56.
- Dietz, Matthias / Garrelts, Heiko (Eds.) (2013): *Die internationale Klimabewegung. Ein Handbuch*. Wiesbaden: Springer Vs.
- Dux, Günter (2019): *Demokratie als Lebensform. Die Welt in der Krise des Kapitalismus*. Wiesbaden: Springer Fachmedien.
- Europäische Kommission: Klimapolitik. Folgen des Klimawandels. Online: https://ec.europa.eu/clima/change/consequences_de (22.01.2020).
- Goffman, Erving (1974): *Frame Analysis. An Essay on the organization of experience*. New York: Harper & Row.
- Hellmann, Kai-Uwe (1998): Paradigmen der Bewegungsforschung. Forschungs- und Erklärungsansätze – ein Überblick, In: Hellmann, Kai-Uwe / Koopmans, Ruud (Eds.): *Paradigmen der Bewegungsforschung. Entstehung und Entwicklung von Neuen sozialen Bewegungen und Rechtsextremismus*. Opladen, Westdeutscher Verlag, 3-9.
- Hopf, Christel (2015): Qualitative Interviews - ein Überblick, In: Flick, Uwe / von Kardoff, Ernst / Steinke, Ines (Eds.): *Qualitative Forschung. Ein Handbuch*. 11. Auflage, Hamburg: Rowohlt Verlag, 349-360.
- IPCC (2018): Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty. Summary for Policymakers.

- Kaase, Max (1999): *Qualitätskriterien der Umfrageforschung. Quality Criteria for Survey Research*. Berlin: Akademie Verlag.
- Kern, Thomas (2008): *Soziale Bewegungen – Ursachen, Wirkungen, Mechanismen*. Wiesbaden: VS Verlag für Sozialwissenschaften / GWV Fachverlage GmbH.
- Krapp, Michael / Nebel, Johannes (2011): *Methoden der Statistik. Lehr- und Arbeitsbuch*. 1. Auflage, Wiesbaden: Springer Fachmedien.
- Lenton, M. Timothy / Rockström, Johan / Gaffney, Owen / Rahmstorf, Stefan / Richardson, Katherine / Steffen, Will / Schellnhuber, Hans Joachim (2020): *Climate tipping points – too risky to bet against. The growing threat of abrupt and irreversible climate changes must compel political and economic action on emissions*. Online: <https://www.nature.com/articles/d41586-019-03595-0> (14.08.2020).
- Martin, Vivian B / Clifton, Scott / Bonnie, Brennen / Meenakshi, Gigi Durham (2018): *What Is Grounded Theory Good For?*. *Journalism & Mass Communication Quarterly* 95(1), 11-22.
- National Research Council (1979): *Carbon Dioxide and Climate: A Scientific Assessment*. Washington, DC: The National Academies Press.
- Neidhardt, Friedhelm / Rucht, Dieter (1993): "Auf dem Weg in die „Bewegungsgesellschaft“?. Über die Stabilisierbarkeit sozialer Bewegungen." *Soziale Welt* 44(3), 305-326.
- ORF (2019): *Tausende demonstrieren mit Thunberg*. Online: <https://orf.at/stories/3125225/> (09.02.2020).
- Rootes, Christopher / Nulman, Eugene (2015): *The Impacts of Environmental Movements*, In Della Porta, Donatella / Diani Mario (Eds.): *The Oxford Handbook of Social Movements*. Oxford: Oxford University Press, 729–742.
- Snow, A. David / Benford, Robert (1988): *Ideology, frame resonance, and participant mobilization*. *International social movement research*, 1, 197-217.
- Snow, A. David / Rochford, E. Burke / Worden, K. Steven / Benford, D. Richard (1986): *Frame alignment process, micromobilization and movement participation*. *American Sociological Review*, 51(4), 464-481.
- Snow, A. David / Benford, Robert (1992): *Master frames and cycles of protest*, In: Morris, D. Aldon / Mueller, Carol McClurg (Eds.): *Frontiers in social movement theory*. London, New Haven, Conn: Yale University Press, 133-155.
- Snow, A. David / Soule, A. Sarah / Kriesi, Hanspeter (Eds.) (2010): *The Blackwell Companion to Social Movements*. Malden/Oxford/Victoria: Blackwell Publishing.
- Sommer, Moritz / Rucht, Dieter / Haunss, Sebastian / Zajak, Sabrina (2019): *Fridays for Future. Profil, Entstehung und Perspektiven der Protestbewegung in Deutschland*. Online: <https://protestinstitut.eu/ipb-working-papers/> (17.08.2020).
- van Stekelenburg, Jacquelin / Walgrave, Stefaan / Klandermans, Bert / Verhulst, Joris (2012a): *Contextualizing Contestation. Framework, Design and Data*. Online: <http://www.protestsurvey.eu/index.php?page=project> (27.06.2019).
- van Stekelenburg, Jacquelin / Walgrave, Stefaan / Klandermans, Bert / Verhulst, Joris (2012b): *Contextualizing Contestation. Framework, Design and Data*. *Mobilization: An International Journal* 17(3), 249-262.
- Wahlström, Mattias / Kocyba, Piotr / De Vydt, Michiel / de Moor, Joost (Eds.) (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*. Online: <https://osf.io/xcnzh/> (26.01.2020).

List of Figures

Figure 1: Age groups Figure 1: Age groups (in percentage)	7
Figure 2: Most important climate related topics (in percentage)	9
Figure 3: Most important climate related topics * Age groups (in percentage)	10
Figure 4: Who can solve the climate crisis? (in percentage)	13
Figure 5: Changing the economic system can solve the climate crisis * Age groups (in percentage)	14
Figure 6: Politics can solve the climate crisis * Age groups (in percentage)	15
Figure 7: Confidence concerning the impact of the protest on climate-related political decisions (in percentage) ..	16
Figure 8: Confidence concerning the impact of the protest on climate-related political decisions* Age groups (in percentage)	16
Figure 9: Science can solve the climate crisis*Age groups (in percentage)	17
Figure 10: My own behaviour can solve the climate crisis * Age groups (in percentage)	18
Figure 11: Individual lifestyle * Age groups (in percentage)	19