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Between Dialogue and Dissent: Exploring Communication Strategies of German Climate Movements and Their Media Portrayal

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I. Abstract

This thesis explores the communication strategies employed by the climate movements Fridays for Future (FFF) and Last Generation (LG) in Germany, and their media portrayal. In the first part, the research focuses on how these movements use Instagram to inform, engage with their audiences and mobilise supporters. By analysing 156 Instagram posts shared between 1 August and 30 September 2024, this study identifies the strategies both movements use to convey their messages, build collective identities, and create a sense of urgency around climate activism. An emphasis is placed on their diagnostic, prognostic, and motivational approaches, along with their use of visuals, emotions and populism, as well as framing techniques. In addition, the thesis examines how FFF and LG are portrayed in the media, focusing on three major German news outlets: *FAZ*, *Zeit Online*, and *taz*. These outlets were chosen for their diverse political orientations - conservative, liberal, and left-wing. The study encompasses a dataset of 306 articles collected over a ten-month period from 1 September 2023 to 30 June 2024. The analysis focuses on key aspects such as thematic emphasis, framing, speaker selection, tone of coverage, protest paradigm, inclusion of climate change-related elements, as well as the visuals accompanying the news articles. Employing a mixed-methods approach, the research combines quantitative content analysis with qualitative interpretative techniques to provide a comprehensive understanding of the groups' communication strategies and their media representation. The subsequent comparative analyses seek to identify similarities and differences between the movements and across news outlets with varying political orientations. The findings reveal strategic overlaps between FFF and LG, building upon existing research, while also highlighting some notable distinctions. Furthermore, they offer valuable insights into how climate activists are represented across the political spectrum and address the challenges movements face in balancing visibility with media simplification and public perception.

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1. Introduction

1.1 Relevance

Climate change is one of the most urgent issues of our time. The Intergovernmental Panel on Climate Change (IPCC) and many other studies highlight the severe consequences of failing to limit global warming to 1.5 degrees (IPCC, 2023). In its latest report, it came to the conclusion that global warming will likely exceed 1.5 degrees and every increment of global warming increases the risks. The authors warn that '[w]ithout urgent, effective and equitable adaptation and mitigation actions, climate change increasingly threatens the health and livelihoods of people around the globe, ecosystem health, and biodiversity, with severe adverse consequences for current and future generations' (IPCC, 2023, p. 92). Furthermore, some of these impacts are already unfolding before our eyes, with record-breaking temperatures each summer and floods and severe storms all over Europe, leaving many without homes. Nonetheless, it does not seem to be a high-priority issue for European citizens. This became obvious in the European Parliament election in June 2024, where Green parties lost votes across Europe, including Germany, and instead far-right parties are on the rise (Niranjan & O'Carroll, 2024). This outcome raises questions about the reasons behind the declining support, in particular when climate impacts become more apparent and pressing. The lack of public support becomes especially concerning given 'a wide scientific consensus that large-scale shifts are needed for mitigation and adaptation to climate change, and thus avoiding its most severe consequences' (León et al., 2023, p. 2).

Although Germany is frequently viewed as a leading example of an industrial economy successfully cutting carbon emissions and shifting towards renewable energy, it appears to fail the goals outlined in the Paris Climate Agreement (Jänicke, 2016; Meyer, Pröschel, & Brüggemann, 2023). In response, climate movements have expanded significantly in the past years, including the rise of more radical factions (Buzogány & Scherhaufer, 2022a; Rucht, 2023). Two of these are Fridays for Future (FFF) and Last Generation (LG). FFF's global climate strike in 2019 'can be considered the largest globally-coordinated climate protest in world history' (Della Porta & Portos, 2023, p. 25). The rise of FFF has likely contributed to a significant increase in research interest in climate activism since 2020, with FFF becoming one

of the most-researched climate movements in recent years (Baran & Stoltenberg, 2023). The emergence of climate activism as a research field diverse in both theory and methodology also 'aligns with a thematic shift from environmental activism related to local grievances to climate change activism that demands institutional action against this global problem' (Baran & Stoltenberg, 2023, p. 465). Before, the climate change discourse has largely been dominated by experts and elites, often overlooking the views and voices of ordinary people (Beck, 2010). This highlights the importance of climate activism and protests within democracies (Buzogány & Scherhaufer, 2022a; Meyer, Pröschel, & Brüggemann, 2023; Scherhaufer et al., 2021). In fact, many transformative innovations originated from grassroots social movements rather than top-down management and scientific, governmental, or industrial interests (Stirling, 2015). While climate movements may raise awareness of climate change, questions remain about their ability to drive meaningful change, given a prevailing social inertia on climate issues in our society (Plein, 2019; Tavares et al., 2020).

Although FFF has attracted a lot of academic attention in the last years and can be considered the most influential climate activist group in Germany, LG has not received the same level of interest (Klinker, 2023; Meyer, Pröschel, & Brüggemann, 2023). In contrast to FFF, LG activists mainly make use of civil disobedience tactics, including road and runway blockades, as well as painting and occupying buildings. These measures are primarily a response to the lack of progress in politics, which the group feels leaves them with no other choice (Kartschall, 2023). However, while their disruptive tactics gain much attention from the public and media, this is often accompanied by widespread disapproval (Meyer, Pröschel, & Brüggemann, 2023; Rucht, 2023). This distinct approach, paired with the lack of research, raises questions about its effectiveness and makes LG an important subject for further investigation.

Social media play a crucial role for climate movements to provide information about climate change, interact with supporters and the public, encourage participation, as well as organise internally (Emmer, 2019; Klinker, 2023; McNair, 2017; Meyer, Pröschel, & Brüggemann, 2023; Olesen, 2022). Furthermore, they allow social movements to bypass traditional media gatekeepers and communicate their message on their own terms while still reaching a broad audience (McNair, 2017). In particular young people can be reached via social media, which are often excluded from traditional political discourse but yet are vital to include in climate change efforts (Ojala & Lakew, 2017; Olesen, 2022; White, 2011). Of all platforms, Instagram has become a key channel for climate change communication and activism in Germany

due to its widespread use (Koch, 2023). Approximately 39% of all German citizens use Instagram, but this figure even increases to 78% among those aged 14–27 (Initiative D21, 2024). However, climate activism studies that focus on a single platform tend to analyse Twitter and Facebook more frequently, with Instagram receiving less attention (Baran & Stoltenberg, 2023).

Baran and Stoltenberg (2023) suggest that 'comparative studies that go beyond a single movement, platform, or country are needed to understand the specificity vs. commonalities of digital environmental/climate movements' (p. 466). In addition, they identified a research gap regarding the specific demands of climate movements, including how they define issues and the policy solutions they advocate. Instead, researches tend to focus more on how the movements employ existing climate policy frames (Baran & Stoltenberg, 2023). Further research gaps can be found in terms of climate change communication on social media (León et al., 2023). While FFF and LG use different approaches to achieve their goals, they also share many similarities. Consequently, a more detailed comparative examination of these two groups can provide valuable insights into their strategies and effectiveness, highlighting both commonalities and differences, and contributing to fill existing research gaps.

While social media enable movements to communicate their message directly without intermediaries, news media also play a crucial role in connecting people with the group and its messages. In fact, media can influence people's engagement with climate change and the tone of the news coverage on climate protests can either support or diminish climate attitudes (Kenward & Brick, 2023; Wonneberger et al., 2020). Consequently, news media play a crucial role in how climate movements are perceived and if they become successful. Their portrayal of activist groups, however, is influenced by their political orientation. Research has shown that conservative newspapers tend to portray climate activism more negatively than neutral or left-leaning outlets, especially when activists challenge the status quo (Hayes & O'Neill, 2021; Meyer, Rauxloh, et al., 2023; Scheuch et al., 2024; von Zabern & Tulloch, 2021). This trend is also relevant given that conservative parties are on the rise in Europe (Niranjan & O'Carroll, 2024).

Despite their influence, there is limited research on how news media report and respond to various forms of climate activism including youth-led movements (Bergmann & Ossewaarde, 2020; Han & Ahn, 2020; Scheuch et al., 2024; von Zabern & Tulloch, 2021). von Zabern and Tulloch (2021) highlight a research gap regarding the 'intersection between climate change, intergenerational justice, social protest and

political illegitimacy in the media' (p. 25). Furthermore, although there already is an extensive body of research on media representations of climate change and effective communication strategies for the general public, the media still struggle to convey climate change information effectively (Tavares et al., 2020). Spaiser et al. (2022) criticise that media have not paid sufficient attention to the climate crisis and have failed to convey a sense of urgency. However, they also point out a shift in public discourse thanks to climate movements and especially FFF (Spaiser et al., 2022). This highlights the importance of protests now more than ever to overcome the prevailing inertia in society and push governments towards taking the critical actions needed.

1.2 Aim

The thesis consists of two comparative analyses. Both primarily employ quantitative methods, supplemented by qualitative observations to provide a more nuanced and comprehensive understanding.

The first focuses on the communication strategies used by Fridays for Future and Last Generation, which, despite sharing a similar core message, use entirely different offline tactics. Given that Instagram is very popular, particularly among young people, and its significance as a platform for climate activism, it serves as the primary medium for studying the groups' strategies. Posts on both FFF's and LG's Instagram accounts will be analysed in order to understand the content they share, as well as how they present and frame their messages and demands. The study seeks to examine the strategies they use and offer insights into their effectiveness considering both their popularity in Germany and the urgent need for climate action.

The second analysis explores their media portrayal. For this purpose, three news outlets with different political orientations were selected: *FAZ* (Frankfurter Allgemeine Zeitung), *Zeit Online*, and *taz* (die tageszeitung). *FAZ* can be considered conservative, *Zeit Online* rather liberal, and *taz* is known for its left-leaning stance. This selection enables a nuanced analysis of how both non-disruptive and disruptive climate movements are portrayed and how their representation varies according to the outlet and its partisanship. This research aims to contribute to findings on news coverage of climate activism, addressing existing research gaps and providing deeper insights to enrich the field of comparative studies. The results shed light on the role media play as intermediaries in the success of climate movements and how they can

either support or hinder climate action efforts through their reporting. Additionally, the influence of political orientation on reporting will be explored to raise awareness of this bias, helping readers to critically assess media coverage and understand how partisan perspectives may shape their own opinion about climate activism. Given the prominent role of young people in these movements, this study also offers insights into their portrayal and whether they are recognised as legitimate political actors within the climate discourse.

1.3 Structure

The initial step of this thesis involves compiling the current state of research on relevant theories and findings. This review is divided into three main chapters.

The first chapter explores the history of climate activism, tracing its development from the 18th century to the present. It also examines the emergence of the two primary climate movements analysed in this thesis: Fridays for Future and Last Generation. The chapter concludes by exploring the role of collective identity and emotions for social movements.

The next section examines the communication strategies of climate movements, focusing on the role of social media in activism, how it is used, and its benefits and challenges for young activists. Relevant rhetorical and framing strategies are discussed, with a focus on collective action and master frames as identified by Snow and Benford (1988, 1992, 2000). Recent studies on these frames are reviewed, including insights on FFF and Extinction Rebellion (XR), which employs similar disruptive tactics like LG. The chapter also analyses populist rhetoric, with examples from Donald Trump and Greta Thunberg, and concludes with studies evaluating the effectiveness of different elements within communication strategies.

The final chapter of the literature review focuses on the media representation of climate movements. This section begins with climate change communication in the media, addressing how climate change is reported and framed, along with existing challenges. Following this, the media portrayal of climate movements is examined and the protest paradigm is introduced, as investigated in studies by Chan and Lee (1984), McLeod (2007), von Zabern and Tulloch (2021) and Hayes and O'Neill (2021). This concept describes the disparagement of activists through both textual and visual means when they challenge the status quo. Research on frames used in German news

coverage of climate activism is also presented, alongside findings on the influence of partisanship and political bias in climate protest reporting.

The last sub-section discusses public discourse on FFF and LG, and particularly views on disruptive protest methods. Finally, issues such as media misinformation and mistrust are addressed. This review forms the foundation of the thesis and guides the development of the research questions.

The next chapter outlines the methodology, covering the sample selection, study period, and sampling procedure. Research questions are then formulated, and key concepts are translated into measurable characteristics. Based on these variables, two codebooks are developed: one for analysing FFF's communication strategies on Instagram, and another for examining FFF's media portrayal in news articles by *FAZ*, *Zeit Online* and *taz*. Each codebook includes a categorical system and detailed coding instructions, which undergo a pretest each to ensure reliability and validity. The revised codebooks serve as the basis for the content analysis. The chapter concludes with a discussion of the study's methodological limitations.

After data collection, the cleaned dataset is analysed using SPSS for statistical examination. Statistical analyses, including chi-square, Cramer's V, and Eta-coefficient combined with ANOVA, are applied to understand correlations between variables and assess the statistical power of the findings. Results are presented in relation to the research questions and interpreted with reference to the relevant literature. The thesis concludes with a summary, a discussion of limitations, and recommendations for future research.

2. Climate Activism: A Brief History

2.1 The History of Social and Environmental Movements

In order to define the environmental movement, it is crucial to take a look at its past, present and future (Alston, 1991, as cited in (Gottlieb, 1993b).

Developments in England and the United States From the 18th to the 20th Century

Delving deeper into history, the emergence of social movements can be traced back to events in England and America during the 18th century. During this time, war, parliamentarisation, capitalisation, and proletarianisation mutually intensified government impact on individuals and led to increased political engagement and alliances across social classes (Tilly & Wood, 2013). In particular demonstrations played a key role in Western democratising countries in the 19th century and contributed to an increased interdependence between street and parliamentary politics. Various social movement performances such as the formation of coalitions, public assemblies, rallies, petitions, media statements, or leaflet distribution, evolved over time against the backdrop of broader social and political changes (Tilly & Wood, 2013).

In the late 19th century, the United States saw the emergence of public concern over three environmental issues. First, the fear of depleting natural resources, especially wood, led to the 'conservation movement' to protect essential materials. The second issue revolved around the preservation of wilderness, with various organisations advocating for the protection of undeveloped lands of great natural beauty (Rome, 2003). According to Nash (2001), artists and writers started to romanticise these before so-called 'wastelands' as an idyllic escape from urban life by the middle of the 19th century, leading to a new valuation of them. The third concern was pollution, which posed a significant health threat in fast-growing cities, initiating extensive efforts to improve urban environments. These early initiatives laid the groundwork for the modern environmental movement that gained momentum in the 1960s and also responded to the significant changes in American life after World War II (Rome, 2003). Due to a booming economy and thus urban and industrial changes, as well as the advent of new technologies, such as the atomic bomb or chemical

pesticides, Americans became more aware of the risks associated with transforming and manipulating nature and less tolerant of environmental degradation (Gottlieb, 1993b; Rome, 2003).

According to Gottlieb (1993a), the roots of environmental activism trace back to the early 20th century, focusing on campaigns aimed at improving the living and working conditions in industrial areas and working-class neighbourhoods. While several scholars have studied different American states to deepen their comprehension about the rise of the environmental movement (Huffman, 1994; Hurley, 1995; Wellock, 1998), views on the current environmental movement differ due to a narrow historical description. A striking event seems to have been the Earth Day in 1970 that is often referred to as the beginning of the new environmental era and described by Gottlieb (1993b) as 'the culmination of an era of protest' (p. 14). In contrast to conservationists that focused mainly on national parks, forest lands and resources, environmentalists were concerned with addressing pollution and environmental hazards (Gottlieb, 1993b). Hays and Hays (1987) distinguished conservationists, focused on efficient, sustainable production, from environmentalists, emphasising consumer-driven efforts to improve life quality. However, this view overlooks links between historical resource management and modern challenges, such as petrochemical reliance and mass consumption, as well as community-driven activism on quality-of-life issues. Furthermore, during the 1970s, environmental groups adopted both confrontational and regulatory approaches to achieve environmental change (Gottlieb, 1993b). 'Environmentalists were activists and lobbyists, system opponents and system managers' (Gottlieb, 1993b, p. 15). This finally led to critiques that mainstream environmentalism had become too intertwined with interest group politics (Gottlieb, 1993b).

Rachel Carson's *Silent Spring* (1962) played a pivotal role in environmentalism, linking urban and industrial issues to broader ecological concerns. She introduced a new environmental consciousness by exploring the dangers of synthetic pesticides and challenging the prevailing trust in technological progress. This period marked a shift towards recognising environmental degradation as a quality-of-life issue, emphasising the inseparability of human and natural environments. Carson's work, despite criticism in particular by the chemical industry, other industry advocates and conservationists, sparked a broader debate on the impact of industrial technologies on the environment and the need for democratic involvement in scientific and technological decision-making. This finally contributed to the rise of new

environmental protests (Carson, 1962; Gottlieb, 1993b). Gottlieb (1993b) lists Rachel Carson among others such as Bob Marshall and Alice Hamilton as pioneering figures, who challenged the prevailing limited perspectives of their time and forced 'their contemporaries to realize that much more was at stake than one damaged forest or one industrial poison or one dying bird' (p. 17).

Development of Environmentalism in Germany During the 20th Century

Germany can be considered a prime example of the influence of a country's political history on social movements (Tilly & Wood, 2013). Taking a closer look at the country, in particular the period from 1906 leading up to World War I saw a significant increase in street demonstrations in Berlin. These demonstrations were closely monitored and restrained by the police under the guise of maintaining public order. The post-World War I Weimar Republic era, up until the Nazi takeover in 1933, subsequently marked a time of slightly expanded freedoms for social movements voicing their demands (Tilly & Wood, 2013). During the Nazi era, however, social and political conditions changed. In 1935, the 'Reich Nature Protection Law' (Reichsnaturschutzgesetz) was enacted by conservationists and stayed in force until 1958 (Lekan, 2009). This legislation facilitated the establishment of numerous nature reserves within a short period of time. Nonetheless, this was significantly influenced by personal interests of high-ranking Nazi leaders, such as Hermann Göring, who used the protected areas for hunting (Motadel, 2008). Fischer (as cited in Motadel, 2008) indicates the following:

> [T]he affinity between the protection of nature and soil and the protection of the people living on it, as well as the arguments of conservationists against non-native species, were not only compatible with, but became part of, the racist rhetoric of the Nazis. (Motadel, 2008, p. 141)

From 1950 onward, coined by the prior repressive era under the Nazi regime, German authorities and 'public order policies [then] became more tolerant, more selective, more oriented toward prevention, more respectful of democratic procedures, and "softer"' (Della Porta, 2006, p. 71). This shift towards a more liberal stance was also mirrored in the German civil society and the media landscape of West Germany, where publications such as *Der Spiegel*, *Die Zeit* and the sensationalist *Bildzeitung* began to

extensively report about air, water and noise pollution. The increased coverage contributed to raise public awareness on these critical matters. The mid-1950s marked the advent of grassroots environmental activism due to the emergence of community-driven initiatives that employed tactics like mass demonstrations, legal actions, and press conferences to address environmental concerns (Lekan, 2009). The activists redefined environmentalism by focusing on the well-being of their local homes and neighbourhoods rather than distant, uninhabited wilderness (Boime, 2008). The active participation of citizens played a crucial role in strengthening the bond between environmentalism and democratic engagement within West German society. The period between 1957 and 1968 saw the introduction of numerous laws addressing air pollution, land use, and water contamination, underscoring the rising prominence of popular environmentalism in the years following the war. During this time, Germany experienced a growing consciousness regarding environmental concerns similar to the United States, including the risks associated with atomic fallout and the use of pesticides (Lekan, 2009). This heightened awareness was further amplified by Rachel Carson's *Silent Spring* (1962), that, in opposition to the United States, did not become a bestseller in Germany straightaway but yet has played a pivotal role in advancing environmental activism in Germany and globally (Stoll, 2020). Christof Mauch even calls it the 'bible' of the environmental movement (Blawat, 2012). 'These new environmental toxins […] demanded novel forms of scientific investigation, environmental awareness, regulatory oversight, and popular participation that went beyond mere visual enhancement, natural monument protection, or green-space planning' (Lekan, 2009, p. 255). The rise of environmental protection in Germany was driven by a widespread recognition of the urgency of environmental issues by various influential forces: from the government to the media, the Federation of German Industries, the opposition and the 'new social movements' (Engels, 2006).

Jens Ivo Engels contributed significantly to the understanding of the development of environmentalism in Western Germany. In his work, Engels offers a thorough examination of the factors and events that shaped environmental activism during 1950-1980. He distinguishes between the 'pre-ecological' period of the 1950s and 1960s that included the conservation movement (pp. 35-208), and the 'ecological' period in the 1970s that saw the emergence of the modern environmental movement influenced by its predecessors (pp. 209-399). The conservationist unions were characterised by patriarchy and hierarchy, and their membership predominantly consisted of individuals from an educated bourgeois background, which were clinging

to the ‘achievements’ of the Nazi era. They focused on landscape management from the late 1930s and this approach remained dominant until the 1970s (Engels, 2006).

The German term ‘Umweltschutz’ (environmental protection) was coined only in 1969 and refers to the entirety of the human basis of life, including artificial environments. Before, the focus was primarily on ‘Naturschutz’ (nature conservation), which concerns the preservation of natural and near-natural habitats, plants and animals (p. 21). This evolution in terminology also reflects the expanding awareness and engagement with environmental issues, shifting from mere conservation to a more holistic approach to protect the environment after 1969 (Engels, 2006).

The time around 1970 is seen as an epochal change, both in Germany as well as in the United States (Engels, 2006; Gottlieb, 1993b). The onset of the ‘ecological’ age, a major turning point since the 19th-century industrialisation, was characterised by two major events: a general environmental policy initiated by the government and a change in the media coverage of nature and environmental issues (Engels, 2006). This shift in media occurred between 1965-1970 with the involvement of figures like TV star Bernhard Grzimek and Horst Stern who politicised environmental issues with the aid of animal films (pp. 214–275). Grzimek used the popularity of his animal shows to advocate for species protection, blending traditional nature film narratives with more scandalous stories to highlight environmental threats. Stern, approaching the subject from a more scientific point of view, combined the animal film with a rebellious, ‘left-wing’ appearance and criticism of the establishment. Despite the rather radical approach, the audience accepted Stern’s presentation in particular due to their emotional response to animal and species protection. Both film-makers contributed significantly to the transformation of nature into a field of political debate (Engels, 2006).

This period also saw the emergence of the association BUND (Bund für Umwelt und Naturschutz Deutschland e. V.) in 1975 that aimed to broaden the scope to all environmental issues, including energy and nuclear power, and adopted ecology as its guiding scientific principle (pp. 312, 318). The rise of citizen initiatives marked a shift towards more confrontational and protest-oriented public engagement, striving for a detachment from economic and political power dynamics and also bringing about the anti-nuclear energy movement. The Green Party was formed between 1977 and 1980 as an integration process of some of these initiatives and entered the German Federal Parliament (Bundestag) in 1983, becoming one of the most politically successful environmental parties (Engels, 2006, p. 400). Before 1970, protests were

not inherently anti-authoritarian and activists made efforts to respect authorities while stating their demands, avoiding any confrontation (Engels, 2006; Motadel, 2008). The state was seen as an ally and activists even co-operated with the government to pursue their objectives through formal and informal means (Engels, 2006).

By the 1970s, environmental protection became a platform for diverse debates and critiques of society, state, and politics, and was framed as youthful, rebellious, and left-wing. The state was increasingly seen as an opponent which encouraged local protest initiatives to openly confront and delegitimise the state (pp. 394-399). This contributed to a significant loss of prestige for political institutions. Environmental activists increasingly leveraged media and public spaces to generate external pressure on political figures, taking advantage of the willingness of politicians to respond to both good and bad press. More aggressive forms of protest, including demonstrations, collection of signatures and civil disobedience, and the increasingly dramatising rhetoric, became the norm and marked a shift from earlier, more consensus-oriented approaches. Individuals were politicised and their expressed desire became a key source of legitimacy for political actions. Despite this adversarial stance towards traditional political structures, the movement often continued to rely on institutions to advance its goals, thus highlighting a complex, sometimes contradictory, relationship with the state (Engels, 2006).

Furthermore, the movements sought to include citizens with conservative views or a traditional understanding of nature conservation in order to profit from the wider pluralistic society. The marketing strategies of BUND and the Green Party, among others, exemplify this approach. While taking on a diversity of goals and styles, they were able to do so under a unified framework due to different interpretations of the same message. This approach helped them to attract diverse groups, such as conservative and left-wing, to the environmental movement. Environmental and nature conservation activists underwent a significant transformation over time - from a movement of the elite to heroic rebels -, yet they all shared the sentiment of feeling overlooked and the belief that they could significantly improve society if only their perspectives and ideas were given enough consideration (Engels, 2006).

The environmental movement promoted not just the protection of nature but also alternative lifestyles and values and criticised the modern society. Apocalyptic warnings about the future legitimised the reform claim. Economic motivations, capitalism - coupled with over-consumption -, and politicians' lust for power were associated with harm to the common good as well as the environment (p. 416).

Environmental and nature conservation groups successfully connected with various societal groups by framing their activities as serving the common good, which began to be increasingly defined by ordinary citizens and marginalised groups instead of the elite. Nevertheless, the initiatives were still largely driven by the educated middle classes and criticised for simply wanting to secure new privileges. Market-oriented behaviour, the reliance on state support and private negotiations are an integral part of success also for environmental activists despite their efforts to hide this (Engels, 2006).

While scientific and technical foundations grew in their importance, the rise of citizen initiatives also brought subjective experiences of environmental impact into focus, for example due to road construction and nuclear power plants (p. 422). The advocacy for environmental protection increasingly emphasised emotional and subjective motivations alongside scientific rationales. Scientific expertise, on the other hand, played a crucial role in conflicts, helped shape political decisions and extended to media debates where figures like Grzimek leveraged their scientific reputation to advance political demands. Nevertheless, Stern also succeeded in achieving expert status without a diploma thanks to his media presence, highlighting the importance of convincing arguments (Engels, 2006).

In addition, a 'Westernisation' of nature politics took place, where Western (particularly North American) concepts influenced German conservation practices, which were then blended with traditional German approaches like landscape maintenance. Despite international influences, German contributions to conservation also gained international recognition (Engels, 2006). Based on these findings, Engels (2006) suggests a leadership model from the United States and convergence developments with country-specific characteristics in the field of nature and environmental protection.

Today, the environmental movement reflects a broad spectrum of perspectives. Gottlieb distinguishes them as follows:

> [P]rofessional groups whose claims to power depend on scientific and legal expertise; environmental justice advocates concerned about equity and discrimination; traditional conservationists or protectionists whose long-established organizations have become a powerful institutional presence; local grass-roots protest groups organized around a single issue; direct action groups bearing moral witness in their defense of the natural environment. (1993b, pp. 2-3)

Between those groups as well as between them and opponents, there is an ongoing uncertainty and debate over policy directions, agenda, and support bases. They may be multimillion-dollar enterprises with CEOs and experts or neighbourhood groups focused on local issues. Over time, the term 'alternative' has grown in use for particular environmental groups which clearly separate themselves from the mainstream, in particular in terms of interest group status, but also budget- and staff-wise. These alternative groups often include grassroots networks, community-based initiatives, and more ideologically-driven 'green' organisations. They remind of the 'new social movements' from the 1960s, continuing a focus on equity, empowerment and everyday issues. Alternative groups view environmental problems more critically and grounded in the societal structures of production and consumption. In particular, issues of gender, race and class have become a primary subject-matter, with many groups taking on a feminist perspective (Gottlieb, 1993b). Despite the complex history of the environmental movement and substantial differences among groups, a redefinition could lead 'towards an environmentalism that is democratic and inclusive, an environmentalism of equity and social justice, an environmentalism of linked natural and human environments, an environmentalism of transformation' (Gottlieb, 1993b, p. 17).

Emergence of the Climate Movement

The evolution of the climate movement has been influenced by its roots in environmental and environmental justice movements (Dietz & Garrelts, 2013). In the 1970s, concerns about climate change began to circulate within the scientific community. However, only in March 1989, the international non-governmental 'Climate Action Network' was established to combat global warming caused by human activities (Rucht, 2023). The fear of a nuclear war declined and the environmental movement was driven by the perception of new risks, such as the ozone layer depletion discovered by science (McNair, 2017). The 'United Nations Framework Convention on Climate Change' (UNCCC), enacted in New York in 1992, and its 'Conference of the Parties' (COP1) in Berlin in 1995 display the first international efforts to limit climate change. Even though the conference saw a high attendance of about 3,000 participants from 166 countries, it was rather unsuccessful, as already predicted by a network of 80 NGOs. Subsequent conferences over the years

remained fruitless despite warnings from climate scientists and pressure from a globally connected climate movement (Rucht, 2023).

Initially, in the late 1990s and early 2000s, only a few groups focused on climate policy which changed with the enactment of the Kyoto Protocol in 2005. During this time, numerous new groups that aligned largely with the UN climate regime were formed. However, the movement faced significant challenges after the failed 2009 Copenhagen Summit, partly also due to the resurgence of climate scepticism and the global financial crisis (Dietz & Garrelts, 2013). The movement reorientated itself strategically and increasingly moved towards localised, confrontational protests against the fossil fuel industry and distanced itself from international institutions (de Moor et al., 2021; Dietz & Garrelts, 2013). In view of the next UN climate change conference in 2015, activists sought to avoid past mistakes by emphasising better organisation, clearer goals, and stronger alliances with political actors and civil society organisations. The narrative of past defeat was used to frame the COP21 as a pivotal moment that required different strategies and build a sense of urgency and determination (de Moor & Wahlström, 2019).

They succeeded: The Paris Climate Conference in December 2015 marked the first significant breakthrough with the objective of reducing CO_2 emissions to keep the global temperature increase below two degrees by 2050, with an ideal target of 1.5 degrees. However, many countries, including Germany, seem to fail to act on the agreed measures (Rucht, 2023). In addition to 2015, Neas et al. (2022) also mention 2018 as an important year within the field of research. It marks a pivotal moment in the study of climate activism and how adults, including researchers, view youth activism, evidenced by a surge in academic work inspired by youth-led approaches (Neas et al., 2022). Over time, the climate movement has grown and expanded into a climate justice movement (CJM) (Rucht, 2023). Besides ‘Fridays for Future’, also more radicalising movements have appeared, such as ‘Ende Gelände’, ‘Letzte Generation’ (Last Generation), or ‘Extinction Rebellion’. The CJM has the capability to achieve significant historical transformations by engaging the masses through bottom-up mobilisation, an approach necessary for achieving transformations that mitigate climate change and its impacts (Fisher & Nasrin, 2021; Hess, 2018). The movement’s strong imagination is ‘an important skill and cultural resource enabling and projecting multiple and diverse future scenarios in order to rethink our decision-making processes in the present’ (Buzogány & Scherhaufer, 2022a, p. 2). So far, the CJM has succeeded in reintroducing public resistance in Europe through protests and

civil disobedience, while also highlighting the link between environmental challenges and democratic processes (Daniel et al., 2020; de Moor et al., 2021; Scherhaufer et al., 2021).

2.2 The Emergence of Friday for Future

Fridays for Future defines itself as a 'youth-led and -organised global climate strike movement that started in August 2018, when 15-year-old Greta Thunberg began a school strike for climate' (Fridays for Future, n.d.–c). She continued to protest every school day outside the Swedish Parliament for three weeks, leading up to the Swedish election, and demanded the government and society to treat the climate crisis with the urgency it requires (Fridays for Future, n.d.–c). Even though she was alone at first, her protest quickly gained global media attention and was joined by others (Fridays for Future, n.d.–c; Hayes & O'Neill, 2021). Together, they decided to extend their strike until Swedish policies aligned with the Paris agreement to limit global warming to below 2° C. They launched the hashtag #FridaysForFuture, and called on youth worldwide to participate, marking the beginning of school strikes for the climate every Friday around the globe (Fridays for Future, n.d.–c). In a short period of time, also politicians started to take notice of Thunberg and she was invited to the climate summit in Katowice, Poland, in December 2018. At this climate conference, Greta Thunberg and Luisa Neubauer met, whereby the latter became one of the first initiators of FFF Germany. On 18 January 2019, a total of 25,000 people demonstrated at 50 locations in Germany, marking the beginning of the German FFF movement. By mid-February, FFF Germany already listed 155 local chapters (Sommer et al., 2019).

While initially focused on small school strikes, FFF has broadened its activities to include massive mobilisations like the Global Earth Strikes, drawing hundreds of thousands to the streets (Buzogány & Scherhaufer, 2022a; Sommer et al., 2019). The first Global Climate Strike was organised on 15 March 2019 and was very successful, uniting around 2.3 million protesters according to the group (Fridays for Future, n.d.–a). The movement's success became visible in a significant rise in the number of members of the parliament discussing the climate strike movement and environmental policy after the first Global Climate Strike, underscoring the importance of local protests (Schürmann, 2023). The largest event so far, however, has been the third Global Climate Strike on 20 September, 2019, which saw around 3.5 million

participants in 151 countries worldwide and over a million across Germany (Buzogány & Scherhaufer, 2022a; Fridays for Future, n.d.–a). Due to a clear invitation for adults to join the protest in September, also a greater presence of older protesters was noted. Nevertheless, 'one third of demonstrators were aged 19 or under' and 'nearly 60% of participants identified as female' (de Moor et al., 2020, p. 4). The superiority of young people as initiators, organisers and participants makes the movement very unique, as usually adults are the dominating part in social movements (de Moor et al., 2020; O'Donoghue & Strobel, 2007). Moreover, women and girls are disproportionately impacted by the effects of climate change due to 'underlying gender inequalities and the failure to take gender issues into account in environmental policymaking' (Turquet et al., 2023, p. 7). The higher female attendance may also be explained by their tendency to express greater levels of environmental concern (Finucane et al., 2000), yet FFF sets itself apart from other protests by this high number of females (Buzogány & Scherhaufer, 2022b). Another notable finding are the high levels of education of the participants, most of them (or their parents) possessing a university degree and yet a strong heterogeneity in terms of social classes (de Moor et al., 2020; Della Porta & Portos, 2023).

Today, Greta Thunberg is the symbol of the fight against climate change (Olesen, 2022). Her 'meteoric rise from lonely school striker in August 2018 to global icon and Nobel Peace Prize favorite a year later is one of the most remarkable political phenomena in recent decades' (Olesen, 2022, p. 1325). She inspires many activists worldwide, has been featured on Time magazine covers, addressed the UN and World Economic Forum, and has over three million Facebook followers (Olesen, 2022).

As of April 2024, FFF Germany was supported by over 500 local and regional groups, as well as over 40 thematic subgroups which again have founded local groups all over Germany (Fridays for Future Deutschland, n.d.–c). Thematic subgroups that are listed on the website are for instance: 'Entrepreneurs for Future', 'Scientists for Future', 'Parents for Future', 'Teachers for Future', 'Omas for Future' or 'Health for Future' - just to mention a few (For Future Bündnis, n.d.). These groups also reflect a shift in participant demographics to include a wider range of societal groups, such as academics, (grand)parents, and more. The formation of the anti-capitalist sub-group 'Change for Future', which unites activists from over 30 local groups, highlights the presence of a radical anti-capitalist sentiment within Fridays for Future (Konicz, 2019). However, this sub-group seems to not be active anymore, since its website is not reachable and its latest posts on Instagram and X were published in 2020 (Change

for Future, n.d.–a; Change for Future, n.d.–b). Yet, this underlines the diverse nature of FFF and the inclusion of various perspectives, ranging from 'ecological modernisation' to more radical ones, linked to anti-capitalism and degrowth, which is probable to also lead to internal struggles (Marquardt, 2020).

FFF is operated mainly by young individuals and characterised by a decentralised structure, non-violence and political independence. Nevertheless, one of the most known representatives of FFF Germany, Luisa Neubauer, is affiliated with the Green Party. Additionally, in 2021, several activists accepted positions on the electoral lists of established parliamentary parties (Buzogány & Scherhaufer, 2022a). Taking a look at the global movement, the majority of the protestors at the Global Climate Strikes lean politically towards the left or far-left. Furthermore, about half of the protesters expressed distrust in the government, while another third remained neutral (Svensson & Wahlström, 2023).

Networking within the climate movement and broad alliance structures with actors outside the movement are essential for achieving its respective goals. Successful examples of such alliances are for instance the joint protest of FFF and the trade union ver.di for a socio-ecological transportation transition, the expansion of public transport, and better working conditions (Klinker, 2023). In other previous protests, FFF Germany collaborated for example with 'Ende Gelände', a more offensive group that gained nationwide attention primarily through its repeated occupation actions in its fight against lignite coal mining in Germany. Moreover, FFF received support by groups such as the environmental association BUND, Greenpeace, Campact, Naturfreunde and Grüne Jugend, without them taking over the controlling role so FFF could remain independent (Sommer et al., 2019).

Fridays for Future International defines its goals as follows:

> The goal of the movement is to put moral pressure on policymakers, to make them listen to the scientists, and then to take forceful action to limit global warming. Our movement is independent of commercial interests and political parties and knows no borders. We strike because we care for our planet and for each other. We have hope that humanity can change, avert the worst climate disasters and build a better future. Every day there are more of us and together we are strong. Everyone is welcome. Everyone is needed. No one is too small to make a difference. (Fridays for Future, n.d.–c)

The movement demands actions directed towards limiting the global temperature increase to below 1.5 °C compared to pre-industrial levels, promoting climate justice and equity, and adhering to the best available scientific consensus (Fridays for Future, n.d.–b). FFF views climate change as a fundamental threat to our future and democratic progress, drawing inspiration from the ecology, human rights, and women's rights movements to push for societal transformation. The group makes use of diverse protest tactics including demonstrations, petitions, press releases, flyers, and campaigns in both traditional and social media, as well as acts of civil disobedience, to draw attention to flaws in the political system (e.g., an inadequate climate policy). Civil disobedience appears in the shape of protest participation without outright permission and applies only to people that are skipping school, university or work in order to attend (Buzogány & Scherhaufer, 2022a).

According to FFF Germany, the organisation complies with the 1.5-degree target set by the international FFF movement. Yet, its demands are representative of FFF in Germany and show what Germany must do to make its contribution to meeting the 1.5-degree target (Fridays for Future Deutschland, n.d.–b). Reichel et al. (2022) have found local adaptations and negotiations of FFF's message, highlighting the complex interplay between global activism and local contexts.

FFF succeeded in developing a distinct profile within the climate movement by emphasising the importance of intergenerational justice, appealing to older people to not only think about themselves and their prospects, but also about the future of the younger generation and vice versa (de Moor et al., 2021; Hurrelmann & Albrecht, 2020; Neuber et al., 2020; von Zabern & Tulloch, 2021). This concept, which has remained unnoticed for a long time, emphasises that the burden of environmental pollution caused by previous generations falls on the shoulders of today's children (O'Brien et al., 2018; UNICEF UK, 2010).

Generally, the movement draws on the political discourse that has been ongoing in the global environmental or climate justice movement since the mid-1990s (Dietz & Garrelts, 2013). However, FFF distinguishes itself from prior climate mobilisations by an increased emphasis on civil disobedience, shift of attention towards local and national governments, and stronger reliance on science (de Moor et al., 2021). The emergence of FFF 'represents a new development which had little to do with the previous tradition of the CJM [Climate Justice Movement] in Germany' (Buzogány & Scherhaufer, 2022a, p. 4). Nevertheless, FFF faces the challenge of how to proceed due to the lack of substantial successes and declining protest participation.

In response, new groups have been established that seek to increase political pressure through more confrontational actions (Rucht, 2023).

2.3 The Emergence of Last Generation

During a period when Fridays for Future was losing mobilisation power, a previously unknown small group entered the scene with a hunger strike. Its general aim was to increase political pressure to implement the Paris Climate Agreement. Rucht (2023) provides a detailed description of the emergence of the group in his work. Starting on 30 August 2021, a few young activists began fasting near the Berlin Reichstag and demanded a one-hour live broadcasted discussion with the three Chancellorship candidates of the upcoming federal election in September, as well as the formation of a 'Climate Council' staffed by citizens to dictate climate protection measures. 27 days later, the last activist ended their strike, when it became clear that their specific demands would not be met soon. Nevertheless, a meeting eventually took place on 12 November, involving the current Chancellor Olaf Scholz and the two activists Jeschke and Bonasera. The discussion was rather unsuccessful and the activists threatened with massive, peaceful disruptions in January if the government failed to meet its responsibilities.

By January/February 2022, the now so-called 'Last Generation' had grown to 30-50 members and focused initially on combating food waste. Due to symbolic actions being too easily ignored, their intention was to disrupt daily life - non-violently. Their most popular protest form are road blockades up until this thesis is written. Typically, this involved six to ten activists, sometimes gluing themselves to the asphalt to hinder quick clearance by the police and leading to several temporary arrests. In addition to roads, the group also targeted critical infrastructure serving fossil fuel consumption and blocked sea ports and airports (Rucht, 2023).

From April to late summer 2022, LG diversified the themes, targets, and forms of protest actions. The activists continued their road blockades and spread their actions to more cities in Germany. Due to the group expanding its focus to include protests against oil drilling in the North Sea, it also engaged in symbolic actions such as attempting to shut down oil pipelines (Rucht, 2023).

From autumn 2022 extending into 2023, Last Generation continued the established tactics but added provocative attacks on symbolic targets. This included

for example throwing food at artworks in museums, inspired by similar protests in the UK, or cutting off the top of a Christmas tree at the Brandenburger Gate. In 2022, it blocked 276 roads and carried out 42 other actions only in Berlin, which led to 2,200 criminal charges and around 600 fines. Throughout the year, a total of 1,250 road blockades were recorded across Germany. The group's strategy, however, also led to negotiations with local mayors, trading climate policy commitments for a waiver of protest actions. These arrangements were criticised by various political and social groups as potentially legitimising illegal behaviour. By the end of the year, LG consisted of roughly 750 activists (Rucht, 2023).

In May 2023, LG faced accusations to be a criminal organisation and house searches were conducted by police following orders from the Munich General Prosecutor's Office. Additionally, the group's phone calls were monitored. Legally, it is debated whether the primary aim of the LG is to commit crimes, as it focuses mainly on advocating for climate-friendly policies. While some of its protests have been considered criminal, its central objective remains a matter for judicial decision. Some politicians even label the group as extremist or violent, the Federal Office for the Protection of the Constitution, however, sees no evidence of extremism since the group avoids active violence (SWR, 2023).

Despite the challenges, LG continued to intensify its actions to draw attention to climate issues, maintaining a focus on peaceful yet disruptive protest tactics (Rucht, 2023). The police in Berlin saw a significant 80% increase of climate-related blockades in 2023 compared to 2022, predominantly carried out by LG (rbb24, 2024). They have also noticed a shift in tactics, moving from many small blockades to fewer, larger actions (rbb24, 2024; Zauner, 2024). On 28 October 2023, around 600 demonstrators participated in a mass protest, with LG receiving support from foreign groups such as from the Netherlands. 154 of the activists glued themselves to the street (rbb24, 2024). Changes at management level and the lack of successes currently pose challenges to the group. According to the protest researcher Rucht, the movement is stagnating, which means that a levelling off can be expected in the future ('Zwei Jahre „Klimakleber": Ist Die Letzte Generation Am Ende?', 2024). Just recently, in January 2024, LG announced a change of strategy, confirming the shift to larger actions which it defines as 'disobedient assemblies' and the discontinuation of its members gluing themselves to the street (Zauner, 2024). Before, LG activists were aiming to address the public as a whole instead of putting particular actors under pressure (Kumkar, 2022). Now, they also want to confront those responsible for the climate destruction

more directly, inspired by the US American climate justice group ‘Climate Defiance’ (Zauner, 2024).

On its website, the group states the reasons for its protest (translated from German):

> We protest. We offer resistance. We address our demands directly to the federal government. Because the Federal Government has a responsibility to protect our freedom and our livelihoods. […]
> Based on findings from climate physics, it can be objectively established that our current federal government is not fulfilling this responsibility. Its actions, plans and goals will inevitably lead to the irretrievable destruction of our livelihoods. […]
> This is the background against which our protest is taking place. The actions of the German government represent a breach of our constitution, which we cannot accept. We will not stop resisting this course. We consider this to be our irrevocable right. Our right to stand up for the protection of our constitution and the preservation of our free democratic society. (Letzte Generation, n.d.–b)

Meyer, Pröschel, and Brüggemann (2023) took a closer look at FFF and LG and their climate protests. They found out that both groups have similarities in terms of their demands and ‘employ a dual organizational approach, combining offline strategies (e.g. establishment of local working groups) and online strategies (e.g. strategic use of digital media platforms to facilitate organization, attract attention, and promote upcoming demonstrations)’ (Meyer, Pröschel, & Brüggemann, 2023, p. 4). What sets them apart, however, is the form of protest. While civil disobedience consisted of skipping school and work for FFF, LG adopts more disruptive measures: ‘blocking streets or occupying buildings, actions deliberately intended to garner media attention’ (Meyer, Pröschel, & Brüggemann, 2023, p. 4). While its actions are among the most radical in the German climate movement, its demands appear to be surprisingly mild, presenting a discrepancy. Instead of asking for system change and the end of capitalism, the group demands honesty from leading politicians (Zauner, 2024). Specifically, it wants to foster equality in society through changes in areas such as consumption, wealth, public transport, air travel and the automobile industry (Zeit Online, 2024). According to the group, activists are acting out of desperation because

insufficient action is being taken (Kartschall, 2023). Their actions remain a reminder of the ongoing struggle between activism and political response in the face of climate emergencies (Rucht, 2023).

The age range of the activists spans from 19 to 73 years with a notable overrepresentation of the younger generation and academics (Rucht, 2023). However, according to Nimmerfroh, a social psychologist that went undercover in LG, the average age of the members ranges from the late 30s to early 40s and there are more men than women active within the group. Yet, there are still more women represented than in other organisations (Pastoors & Geuther, 2024). Some of the members have gained previous experience in other climate movement groups, such as Fridays for Future and/or Extinction Rebellion. Due to the dissatisfaction with their more reserved forms of action, many transferred to LG (Rucht, 2023). As of April 2024, there were 77 local chapters listed on LG's website, which - at least in 2023 - appeared to be almost exclusively in university cities (Letzte Generation, n.d.–a; Rucht, 2023).

According to LG, the group is largely financed by donations or crowdfunding. Based on a transparency report from 2022, it received over 900,000 euros in donations in 2021 and spent approximately 535,000 euros. In addition, it is supported by the US foundation Climate Emergency Funds (CEF), which is a non-governmental organisation that supports climate protest groups worldwide (SWR, 2023). Apart from this network, LG appears to avoid forming alliances with other climate groups and carries out its actions independently (Rucht, 2023).

2.4 The Role of Identity and Emotions for Collective Action

In order to understand the dynamics of social movements and how collective action is incited, understanding the role of identity in both individual and collective terms is essential (Snow & Benford, 2000; Thomas et al., 2012).

Collective Identity

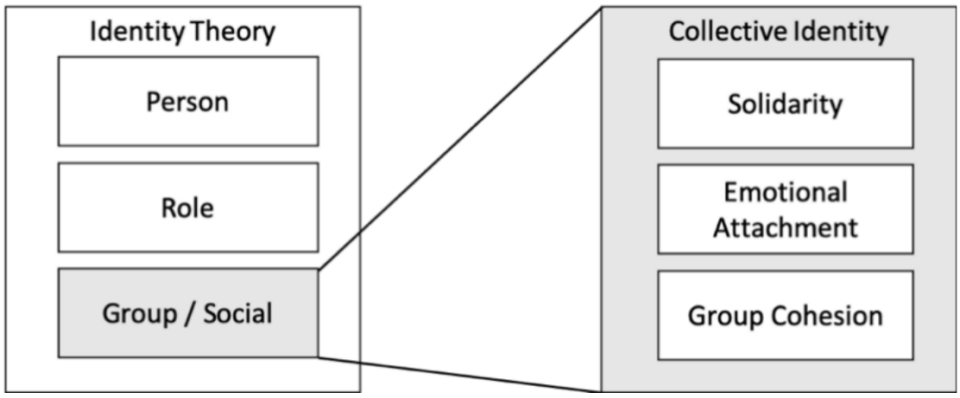
In the past, collective movements were naturally shaped by the specific social conditions they emerged from, such as the working-class movement, which was grounded in a shared social background. Nowadays, this is not the case anymore (Melucci, 1996). During the 1970s and 1980s, the 'new social movements' were

defined by a shift towards post-materialist values. The development of shared social spaces and communities played an important role in their formation, as it helped build solidarity and a sense of collective identity among participants (Brand, 1999; J. Cohen, 1985; Melucci, 1996). For instance, 'the clash over nuclear energy […] pushed forward the development of a common collective identity of […] various oppositional networks' (Brand, 1999, p. 43). As social movements unite diverse groups, requiring activists to collaborate across sociocultural, political, and organisational differences, forming a collective identity is crucial (Daphi, 2017). In fact, '[a]ctivists' collective actions and continued commitment depend on the commonalities they recognise among each other' (Daphi, 2017, p. 105). According to Melucci (1996), social movements are not 'natural' actors and even only become collective actors when they establish a collective identity.

Identity theory suggests that individuals form identities based on personal, role-based, and group-related dimensions (Davis et al., 2019; Stets & Serpe, 2013). However, due to the limitations of identity theory to explain how collective identities within social movements are formed, Davis et al. (2019) expanded the 'group/social' dimension of identity theory by incorporating collective identity (see Figure 1). They describe this new concept as 'collective group/social identity' (Brünker et al., 2019).

Figure 1

Conceptual Integration of Collective Identity Into Identity Theory



Note. From *Collective identity formation on Instagram: Investigating the social movement Fridays for Future* (p. 3)*,* by F. Brünker, F. Deitelhoff, and M. Mirbabaie, 2019, based on data from 'Collective social identity: Synthesizing identity theory and social identity theory using digital data', by J. L. Davis, T. P. Love, and P. Fares, 2019, *Social Psychology Quarterly, 82*(3), 254–273.

Collective identity refers to ‘an individual’s cognitive, moral, and emotional connection with a broader community, category, practice, or institution’ (p. 285), based on a perceived shared status or relation, and is distinct from, but can be part of, personal identity (Polletta & Jasper, 2001). In social movements, collective identity is shaped by ‘solidarity’, ‘emotional attachment’, and ‘group cohesion’ (Polletta & Jasper, 2001). Daphi argues that particularly emotional proximity plays a crucial role in forming a movement identity and ‘refers to the shared feelings of closeness within and distance to the outside’ (2017, p. 20). Additionally, the number of social ties within the group correlates positively with feelings of solidarity (Fireman & Gamson, 1979). Social media not only allow for the expression of individual and group identities but also plays a critical role in the dynamics of collective action through the consequent development of personal networks and emotional connections within a group (Brünker et al., 2019; Melucci, 1988). All three elements of collective identity play a significant role in identity formation and maintenance on social media and are enhanced by interactions like liking, commenting, and connecting (Miller et al., 2016). In particular ‘emotional attachment’ and ‘group cohesion’ have been found to have a significant impact on the formation of a collective identity in Fridays for Future (Brünker et al., 2019). Munson (2010) found out that the formation of strong political opinions occurs especially after joining a movement and are a result of activism rather than its cause. Furthermore, the variables ‘perceived injustice’, ‘perceived efficacy’, and ‘social identification’ have been identified to have an effect on collective action, whereas the variable ‘social identification’ is influenced by group interactions. Followingly, group interactions can play a relevant role as they help form the collective identity through social identification and solidarity, which then again influences collective action (Fireman & Gamson, 1979; van Zomeren et al., 2008).

The Role of Emotions

Emotions are important drivers of action for the new climate movement (Buzogány & Scherhaufer, 2022b; Kleres & Wettergren, 2017). The perception of injustices and emotions such as outrage, despair, anger, fear, and hate are important prerequisites for personal protest engagement (Flam, 2005). XR activists, for example, primarily experience anger, worry, frustration, anxiety, and fear (Doherty et al., 2020). Kleres and Wettergren’s findings show that activists see fear as a motivator rather than a paralyser that raises awareness of climate threats and is mitigated by hope. Hope

results from action and is emphasised as a mobilising strategy, especially in the Global North. At its core is the trust in the movement's collective action. In combination with hope and guilt, fear can turn into 'positive' anger, which then may trigger action (Kleres & Wettergren, 2017). Activists from these regions and well-established environmental organisations like Greenpeace and WWF, however, usually prefer hopeful, positive messages over fear or guilt-inducing tactics (Cassegård & Thörn, 2018; Kleres & Wettergren, 2017). Southern activists, in contrast, experience more acute fear due to direct impacts of climate change, and emphasise fear, hope, guilt, and anger in their narratives (Kleres & Wettergren, 2017). A more recent study by Furlong and Vignoles (2021) found out that collective mobilisation in XR is driven by moral outrage, global identification, and participative efficacy. However, the emotions fear, guilt/shame and hope, showed no significant impact on predicting intentions or behaviours related to collective action (Furlong & Vignoles, 2021). A study on FFF, in contrast, shows how collective guilt and environmental threat predicted protest intentions (Haugestad et al., 2021).

These varying findings across different movements highlight the complex interplay of emotions and their effects. They suggest that different emotional drivers can be more or less effective depending on the context and audience, which underlines the need for tailored communication strategies.

3. Communication Strategies of Climate Movements

3.1 Social Media and Youth Activism

Modern social movements are characterised by the advancements in communication technologies, such as smartphones and the Internet, which enable new ways of organising and networking as well as greater independence from governmental control (Tilly & Wood, 2013).

The Role of Social Media in Youth Activism

In 2023, over 50% of German-speaking people aged 14 and older used social media at least weekly, and 35% daily. This number has been increasing slightly every year. The most used platform is Instagram, followed by Facebook, TikTok, Snapchat, Pinterest and Twitter (Koch, 2023). There is a significant age gradient in social media use which becomes clear when taking a look at young people and their online behaviour. Nine out of ten people under the age of 30 use social media daily or weekly, while this number rises to 96% for young people aged 12 to 19 (Koch, 2023; mpfs, 2023). A considerable amount of these young users obtains news and information from social media, highlighting their central role in daily lives and potential political engagement (GIM, 2022).

Young people are crucial to include in climate change efforts for several reasons: they are future leaders and decision-makers, they will experience climate change's negative impacts, and they are current consumers and citizens contributing to the problem (Ojala & Lakew, 2017; White, 2011). Additionally, they are more vulnerable to psychological impacts from climate change and are easier to reach through the educational system (Fritze et al., 2008; Ojala & Lakew, 2017). Young people are also more open to new ways of addressing climate change (Stevenson et al., 2014). They are more concerned than older generations, yet there appears to be a gap between their values, attitudes, and behaviour, while also lacking a sense of empowerment (European Commission, 2023, July; Ojala & Lakew, 2017). Gifford and Comeau (2011) observed that 'young people generally feel competent but are short on intention' (p. 1306), with behavioural intentions growing stronger with age. However,

they use different coping strategies, such as ‘de-emphasizing the problem, distancing themselves from negative emotions felt, putting trust in various societal actors, and getting involved in different organizations’ (Ojala & Lakew, 2017, p. 5).

Contrary to the ‘deficit model’ that views youth as politically disengaged, evidence suggests that youth are more likely actively involved in non-institutional political actions than traditional party politics and voting, indicating a different pattern of engagement (Osler & Starkey, 2003; Zukin et al., 2006). O'Brien et al. (2018) categorise youth climate activism into three types: ‘Dutiful dissent’ involves working within existing frameworks, such as participating in formal political processes and NGOs, but risks normalising the status quo. ‘Disruptive dissent’ includes direct actions like protests that challenge power structures, raising awareness of justice issues but can lead to polarisation and lacks long-term solutions. ‘Dangerous dissent’, finally, creates new systems, like degrowth movements, that subvert existing power structures, but may not directly confront the status quo and risk co-optation. They conclude that a combination of these approaches is necessary to effectively address climate change and promote resilient and just futures (O'Brien et al., 2018). Over the past years, the youth climate movement has succeeded in raising global awareness about the urgency of the climate crisis, demonstrating the capability of young people to bring about social change (Han & Ahn, 2020).

The Internet and social media serve as vital resources for young people to learn about engagement opportunities and protests, experience political efficacy, and even encounter moral ‘shocks’ that drive participation (Fisher & Boekkooi, 2010; Jasper & Poulsen, 1995; Klandermans, 2004; Maher & Earl, 2019). Youths utilise social media to become informed about socio-political issues and selectively engage with topics of interest, partly also via posts and comments of their social network (Maher & Earl, 2019). Recognising the role of digital media in activism offers insights into evolving patterns of political participation, the dynamics of public mobilisation around issues, and the potential for less hierarchical, more individually driven collective action processes (W. L. Bennett & Segerberg, 2012; Earl, 2014; Maher & Earl, 2019).

Social media can both facilitate and deter youth activism. Online visibility can lead to support or discouragement from family and peers, which can even lead to social sanctions to discourage engagement, especially in environments lacking network support (Cicognani et al., 2012; James & Lee, 2018; Maher & Earl, 2019). Historically, youth have been instrumental in social movements, and their engagement or disengagement can significantly influence their vitality and future direction (Maher &

Earl, 2019). Social media have become an essential component in the micromobilisation of youth, enhancing traditional methods of activism rather than replacing them (Maher & Earl, 2019). While direct invitations from friends and family, as well as indirect exposure, are a primary means through which individuals are introduced to activism, digital media offer alternative pathways for marginalised or isolated individuals (Klandermans, 2004; Maher & Earl, 2019; Schussman & Soule, 2005). Social media facilitate invitations to participate from both strong and weak ties, help build digital communities, maintain social capital, extend the reach and longevity of messages (posts, comments, messages are visible for a long time), increasing the opportunities for engagement; and reach out to others to build or strengthen network ties (Crossley, 2015; Maher & Earl, 2019; van Haperen et al., 2018). These online communities provide a sense of belonging and can motivate young people to adopt more environmentally friendly behaviours facilitating peer role modelling (Maher & Earl, 2019; Robelia et al., 2011). While digital media have primarily facilitated online activism, it has also encouraged some youths to participate in offline protests and activities. This underlines the intertwined nature of virtual and real-world activism (Maher & Earl, 2019).

Fridays for Future and Last Generation on Social Media

Taking a look at the organisation and communication of the local and regional groups of FFF Germany, this interdependency again becomes obvious. Many of them, even when from small cities, have their own Instagram, Facebook or Twitter account with which they can communicate with activists and potentially new members. Additionally, most of them have WhatsApp and/or Telegram groups and can be reached via their own email address (Fridays for Future Deutschland, n.d.–a). This nationwide presence allows the movement to effectively tailor its content to regional needs (Klinker, 2023). A cross-platform usage becomes evident here, allowing organisations to communicate via ‘horizontal networks interconnected through different platforms’ (Soberón, 2019, p. 3). This leads to the formation of online opinion-based groups which can reinforce shared beliefs and lead to collective action (Brünker et al., 2019; Thomas et al., 2012).

In 2023, Klinker found that LG had just one account per platform and thus focused its attention on a single central online presence. Already then, the group effectively achieved significant interaction with just three main accounts, while other

organisations made less impact despite numerous accounts (Klinker, 2023). However, taking a look at the creation date of LG's local chapter accounts, this strategy has since evolved, with numerous accounts being added in 2023 and 2024.

Online communication within the climate movement serves three essential functions in modern democracies: information, interaction and participation (Emmer, 2019). These functions include providing information about climate change and its impacts, facilitating interaction and dialogue with various societal groups on topics like climate, environment, and energy, and encouraging participation through calls for demonstrations or petitions (Klinker, 2023). The specific objectives and target audiences of online posts can vary, focusing either on internal or external communication, depending on the actors and issues involved (Klinker, 2023; Rau & Simon, 2022). Consequently, digital media platforms help movements to communicate their goals externally and organise internally (Meyer, Pröschel, & Brüggemann, 2023). In addition to that, social media expand the repertoire of communication and engagement opportunities through features such as videos, events, hashtags and online petitions (Hemmi & Crowther, 2013; Jacqmarcq, 2021). Social media users can easily produce and disseminate 'activist materials, including everything from protest hashtags, second-hand rumours and photoshopped images, to first-hand eyewitness reports and video evidence' (Poell & van Dijck, 2018, 1). Hashtags are used to express collective identity and have shown a strong connection between personal and collective identity in the case of FFF followers and the movement's political demands (Herrmann et al., 2023). Twitter (now X), for example, has been a popular platform during the FFF Global Climate Strikes, and connected local protests to the global movement. Most tweets shared information on protest locations and sizes or presented opinions on the protests and climate change (Boulianne et al., 2020). Furthermore, the importance of celebrity involvement in social movements and their potential to effect systemic change should be noted. They can raise awareness, legitimise collective action, mobilise support and by this effectively promote different movements (Duvall & Heckemeyer, 2018).

Interaction Between News and Social Media

Increased news media coverage of climate change can heighten public awareness and concern (Sampei & Aoyagi-Usui, 2009). According to the agenda-setting theory, the level of media attention an issue receives determines its prominence on public and

political agendas (McCombs & Shaw, 1972). Furthermore, media attention pressures influential actors like politicians and companies and encourages individuals to reconsider their behaviours, thereby shaping public opinion (Jacqmarcq, 2021). Due to intermedia agenda-setting, also the interplay between social and news media is key in shaping this awareness, giving social media the opportunity to exert influence (Neuman et al., 2014). Social and legacy media are deeply interconnected; newspaper articles are frequently shared and discussed on social media platforms, and discussions and controversies from social media often influence newspaper and television coverage. In the case of Greta Thunberg, attention was initially generated by Twitter, and newspaper and television coverage then broadened public appeal for the movement (Chadwick, 2013). Social media enabled Thunberg to bypass traditional media gatekeepers and directly reach child and youth audiences, who are typically excluded from political communication (Olesen, 2022). However, visibility of climate issues often provokes polarised online reactions, leading to discussions being hijacked by those with opposing views (Meyer, Peach, et al., 2023; Tyagi et al., 2020). Such controversies might increase attention to the issues, but it is important to determine whether this media attention results in substantial debates on climate policy or merely fuels uncivil and polarised discourse (Brüggemann & Meyer, 2023; Garimella et al., 2017).

The rise of digital platforms has altered the landscape of political communication, offering marginalised actors, like social movements, new opportunities to bypass traditional media gatekeeping and reach wider audiences (McNair, 2017). Their access to media and public debate depends on institutionalisation, financial resources, cultural capital, and innovative media management strategies; as well as performance factors like situational credibility, sincerity, and rhetorical skill (King, 1987). Due to the lack of resources, there is a high importance of skilful, innovative and knowledgeable engagement with the media to gain visibility and influence (McNair, 2017). Followingly, groups can ‘increase their newsworthiness by careful attention to interacting with the media, cultivating contacts and responding to the organisational demands of media production’ (McNair, 2017, p. 176). Being different from prevailing social norms or aligning with currently newsworthy issues can increase their media visibility (Goldenberg, 1984; McNair, 2017). Marginalised actors can gain media attention by sparking controversy or engaging in spectacular actions that provide visually compelling content, making their cause more attractive to media outlets (Collins, 1992; McNair, 2017).

In the 1980s, the Campaign for Nuclear Disarmament (CND) in Britain used large, visually impactful demonstrations and symbolic protests to capture media attention. Its diverse, non-violent approach made it appealing to mainstream media, enhancing visibility and sparking public debate on nuclear issues despite limited policy impact. In the 1990s, the environmental movement adopted similar strategies, with large protests and support from celebrities to boost visibility. Greenpeace's 1995 protest against the Brent Spar oil rig showcased the power of effective political communication and media strategy, pressuring companies and increasing global support for Green parties (McNair, 2017). Likewise, Greta Thunberg managed to turn her school strike into a global phenomenon, actively posting on Twitter and Instagram and without financial and organisational resources (Olesen, 2022). The rapid spread of FFF within just 18 months 'is perhaps the strongest example to date of what can be accomplished with limited initial resources in the social media ecology' (Olesen, 2022, p. 1331). However, while strategic media management can offer substantial coverage, it risks the potential simplification or trivialisation of a group's goals by the media, focusing more on spectacle than on substantive issues (Gitlin, 1984).

The rise of social media has expanded access to the global public sphere for non-elite groups, also allowing them to engage directly with the public (McNair, 2015). Today's decentralised media allow iconic protagonists, like Greta Thunberg, greater control over their performance and transforms audiences into active co-performers (Bruns, 2008; Castells, 2009; Olesen, 2022). Olesen (2022) suggests that 'the current social media ecology (a) lowers the cost of initiating performances, (b) accentuates visual representation, (c) creates intimacy between protagonist and audience, (d) draws in new and increasingly young audiences, and (e) distributes communication across several media platforms' (p. 1326).

Challenges of Social Media in Climate Activism

The growth of social media platforms has significantly influenced activism, offering tools that allow for broad, bottom-up change. However, while these platforms enhance communication and mobilisation beyond geographical or temporal barriers, they also raise issues of low engagement due to 'echo chambers' and 'slacktivism'. While the concept of echo chambers suggests that online environmental groups primarily connect with those already interested in and committed to environmental causes and thereby limit their ability to attract new supporters (Greijdanus et al., 2020),

slacktivism refers to 'the inability of creating change by simply liking content with a "click"' ((Büscher, 2016), as cited in (Jacqmarcq, 2021)). Moreover, new media can increase fractionalisation, causing users to avoid topics they find boring or upsetting, which may reduce climate change engagement among disinterested young people (Sunstein, 2009). Even though online platforms tend to encourage the formation of groups with similar views by amplifying and sharing content, they do not necessarily lead to completely isolated echo chambers (Barberá, 2020; Meyer, Pröschel, & Brüggemann, 2023). Platforms may even facilitate cross-group communication, particularly in the context of political discussions on social media (Barberá, 2020). These interactions with contrasting political views, however, can also reinforce pre-existing beliefs and extreme positions rather than change them (Bail et al., 2018). In particular climate change deniers take up a disproportionally large portion in climate-related discussions and try to co-opt those (Meyer, Peach, et al., 2023). In their work, Meyer, Peach, et al. (2023) found out that on Twitter 'mainstream sub-networks mainly communicated internally, while denialist counterpublics tried to engage to a much higher degree with the opposing communities through @mentions and replies' (p. 288). While organisations like Greenpeace suggest online activism can lead to significant offline actions, others contest that it may not result in meaningful change unless participants are already inclined towards active engagement (Jacqmarcq, 2021). According to Jacqmarcq, today's digital communication is influenced by neoliberal economics driven by profit:

> Communication and relationality on these platforms are structured to be commodified and result in the types of engagement such as surface-level "likes" and feeding into echo chambers. It dissuades users from engaging in thought-out, expressive communication, and ultimately goes against the goals of the environmental movement. (2021, p. 50)

Despite these challenges, social media have enhanced activism significantly and enabled a more diverse and widespread participation (Jacqmarcq, 2021). Mainstream media no longer control the narrative surrounding the environmental movement. Instead, the information is continuously shaped and enhanced by the individuals involved in the movement themselves (Lester & Hutchins, 2009). Social media users in general have the ability to influence 'news agendas and shift public opinion through routes which bypass mainstream media' (McNair, 2017, p. 56). Social media present

a low-cost opportunity to become active in social movements while also enabling activists to leverage these social media platforms to boost both participation in and visibility of social movements they engage in (Brünker et al., 2019).

3.2 Rhetorical and Framing Strategies of FFF and LG

The Role of Stories and Narratives

Climate change is an incredibly difficult challenge for humanity, marked 'by fiendish complexity and uncertainty, lack[s] simple policy responses, [has] no end point, and involve[s] competing interpretations of risk' (Nordensvard & Ketola, 2022, p. 17). It generates disagreements and conflict, lacks neutral solutions, and is often described as a 'super-wicked problem' (Nordensvard & Ketola, 2022, p. 17) due to the diminishing time to address it, absence of central authority, and short-term decision-making despite long-term catastrophic impacts (Levin et al., 2012; Nordensvard & Ketola, 2022). Followingly, no policy intervention can fully address this complexity without causing any unintended negative side-effects (Hulme, 2013; Nordensvard & Ketola, 2022).

Stories are vital for understanding it, as they shape expectations and build confidence, acting as essential tools for making sense of the situation during times of heightened uncertainty (Beckert & Bronk, 2018; Nordensvard & Ketola, 2022). Storytelling can be understood as 'the art of telling a story, where emotions, characters and other details are applied to embellish a narrative', while a narrative itself is a linguistic form of storytelling that presents 'a series of events in such a way as to promote a particular point of view or set of values' (Nordensvard & Ketola, 2022, p. 1). Especially since climate change is a field dominated by experts, stories can make complex data accessible and meaningful to a non-expert audience (Bäckstrand, 2004; Nordensvard & Ketola, 2022). Different framings of climate change, resulting from storytelling, and the subsequent inclusion of diverse perspectives, challenge the idea that political agreement is necessary for climate action (Machin, 2013; Nordensvard & Ketola, 2022). In fact, political disagreement and discourse are crucial (Machin, 2013). Even within climate movements, such as FFF, there are notable internal struggles between moderate techno-optimists and advocates for radical, systemic anti-capitalist transformation (Marquardt, 2020).

Fridays for Future and Last Generation are two climate movements that adopt 'markedly different strategies concerning how they organize, execute, and communicate their protests' (Meyer, Pröschel, & Brüggemann, 2023, p. 2). Klinker (2023) discovered that the thematic focuses, goals, and social media communication styles of FFF and LG also reflect their topic composition found on different social media channels.

FFF focuses on mobilising climate strikes, responding to current political events and issues like transportation reforms and political parties. The group increasingly addresses social and systemic issues related to the climate crisis, advocating for people over profit, feminism, solidarity and less corporate influence. FFF effectively mobilised support by focusing on realistic demands and simply demanding politics to adhere to the existing Paris Climate Agreement (Klinker, 2023). Due to its proximity to science and its peaceful strikes, the movement benefited from favourable media coverage (Rucht & Rink, 2020). Additionally, its skilled use of social media, digital outreach and framing have proven to be very effective (Klinker, 2023). FFF leverages modern media strategies to disseminate its messages and influence public discourse by applying social pressure (Buzogány & Scherhaufer, 2022a). The group has a strong understanding of platform algorithms, including which hashtags and images are likely to be promoted (Sorce, 2023). Furthermore, personalised content created by individuals leads to higher engagement online, particularly influenced by few prominent personalities such as Luisa Neubauer from FFF Germany. The group emphasises intersectional and intergenerational engagement, incorporating positive future narratives and solutions into its campaigns (Klinker, 2023). FFF enjoys widespread support among the population, with over half of the German population viewing the climate strikes favourably (Koos & Lauth, 2020). The movement is well-established in the civil society and is tied to political parties (Haunss & Sommer, 2020). In terms of mobilisation, it aims for quantity and persuading as many people as possible to join the movement. Here, it also focuses on the presentation of just a few leading figures (Kartschall, 2023).

Even though LG shares similar goals with FFF, like phasing out fossil fuels and adhering to the 1.5-degree target, its methods vary greatly. The group mainly posts content related to its own protest actions, such as peaceful resistance in Berlin, and its demands and targets, including societal councils and the federal government (Klinker,

2023). In addition, it publishes press releases about its actions on its website which enables the group to distribute its own narrative. It often includes information about the number of activists, the location, the duration of police custody as well as the activists' motivations and demands (Kaufer & Albrecht, 2022). LG takes more radical and disruptive measures for which it consistently encounters mixed responses: its objectives, which include combating food waste, climate and environmental protection, and a more affordable public transport, are widely supported. These demands have changed continuously in the past (Kartschall, 2023). According to the activists, disrupting everyday life is necessary to achieve a shift of priorities because it arouses attention and emotions (Kaufer & Albrecht, 2022). However, their tactics to gain attention for these causes, using civil disobedience, are largely met with disapproval (Rucht, 2023). Nevertheless, their online communication is very effective in terms of the number of reactions, sharing photos or videos that highlight violent confrontations with protesters and their legal struggles. Instead of proposing solutions or promoting broad collaboration like FFF, they emphasise emotional appeals (Klinker, 2023). In contrast to FFF, LG's focus lies on the qualitative mobilisation, meaning that it searches for just a few but highly motivated activists, who then work in small groups (Rucht, 2023). Social psychologist Nimmerfroh, who has studied social movements for years and went undercover in LG, describes the group's internal dynamics as distinct from other non-profit organisations. The belief that road blockades directly lead to political reactions is unchallenged within the group, supporting its overarching goal of 'saving the world', a consensus among members (Kartschall, 2023).

According to Dietz and Garrelts (2013), climate groups actively engage in exchanges about protests and strategies across borders and meet at international conferences. The activists possess a strong self-awareness as part of a social movement. They often discuss and reflect, questioning both technology and capitalism. As a result, the movement rejects many standard solutions to climate change and presents a critically intellectual stance (Dietz & Garrelts, 2013).

Rhetorical Strategies and Collective Action Frames

Rhetorical strategies are purposefully chosen in order to persuade and achieve a desired outcome (Cox, 2010). Various groups such as 'journalists, scientists, corporations, environmentalists, and citizens attempt to influence our perceptions and

behavior toward the environment' (Cox, 2010, p. 58) through symbolic actions like public debate, protests, news reports and marketing (Campbell & Huxman, 2009). Two prominent rhetorical resources are tropes and rhetorical genres. Tropes use language to turn meanings in new directions for persuasive purposes, such as metaphors, irony, and synecdoche. Rhetorical genres are distinct forms of speech that influence perceptions of issues. Examples include apocalyptic rhetoric used by environmentalists to warn of ecological crises, the jeremiad to lament societal behaviours, and environmental melodrama to moralise conflicts and clarify power dynamics. These rhetorical techniques help educate the public, criticise industries, and reframe public consciousness with a moral perspective (Cox, 2010).

Frame analysis is a method used in social movement studies to understand how movements identify issues, interpret them, and communicate these interpretations to influence social or political change (Buzogány & Scherhaufer, 2022a; Snow & Benford, 2000). It helps to 'explain how social movement organizations mobilize activists and convince or persuade the public and decision-makers' (Buzogány & Scherhaufer, 2022a, p. 3) and how they legitimate their actions (Snow & Benford, 2000). Frames shape discourse and are used to emphasise certain values, issues, and beliefs over others, while also presenting common ideas about policy issues and ways to solve them (Snow & Benford, 2000). However, the impact of a particular framing can vary significantly among different groups, with some frames motivating certain individuals while at the same time discouraging others, making this an important research topic (Snow et al., 2018).

While collective action is generally perceived as a continuous effort that involves many different people and actions, the framing of collective action is often understood as carefully crafted messages by social movement organisations (Svensson & Wahlström, 2023). Collective action frames legitimise and drive social movement campaigns and activities with the main goal 'to mobilize or activate movement adherents so that they move, metaphorically, from the balcony to the barricades (action mobilization); to convert bystanders into adherents, thus broadening the movement's base (consensus mobilization); and to neutralize or demobilize adversaries (counter-mobilization)' (Snow et al., 2018, p. 395).

According to Snow and Benford (1988), collective action frames consist of three core tasks that determine the success of their mobilisation function: diagnostic, prognostic and motivational framing. Diagnostic framing deals with the 'diagnosis of some event or aspect of social life as problematic and in need of alteration' (p.199),

while prognostic framing explores 'a proposed solution to the diagnosed problem that specifies what needs to be done' (Snow & Benford, 1988, p. 199). Motivational framing, on the other hand, addresses the action mobilisation (Snow & Benford, 1988) and '[h]ow […] supporters and the public [can] be motivated to support the definitions and solutions proposed' (Buzogány & Scherhaufer, 2022a, p. 4). de Moor et al. (2021) further divided the collective action frames into five tasks, based on Snow et al. (2018): 'to define the problem, to identify who or what is to blame, to present solutions, to identify who or what is responsible for solving the problem, and to elaborate a rationale for participation in collective action' (p. 622). While collective action frames are movement-specific, 'master frames' are more flexible and generic, yet perform the same function (Snow & Benford, 1992). Thus, master frames can be utilised by numerous movements (Buzogány & Scherhaufer, 2022a).

Friday for Future's and Extinction Rebellion's Use of Master Frames

In their study, Buzogány and Scherhaufer (2022a) examined the communication strategies of FFF and Extinction Rebellion (XR), a group that pursues a similar radical approach like LG (Wenzel, 2023), in Germany and identified four master frames: 'climate justice', 'political order', 'economic order' and 'epistemic order'. Each of these was analysed in terms of diagnostic, prognostic and motivational framing. Their findings indicate that both groups use different framing strategies.

When it comes to climate justice, FFF employs apocalyptic scenarios emphasising urgent political action for sustainable transitions (focused on prevention), while also focusing on the generational aspect (Buzogány & Scherhaufer, 2022a; Cassegård & Thörn, 2018; de Moor & Marquardt, 2023). By portraying themselves as victims of climate injustice, young FFF activists effectively create a spatial, temporal, and social proximity, evoking associations with 'our children and grandchildren' and empathy (Spaiser et al., 2022). In addition, they seek to shift the narrative from 'climate change' to 'climate crisis' to convey a sense of urgency and immediate action. This reframing portrays climate change as an all-encompassing threat, a fear of a lost future, and an apocalyptic catastrophe, thereby pushing for political and societal changes (Reichel et al., 2022). In contrast, XR uses post-apocalyptic frames that suggest a climate catastrophe already in place (focused on adaption), advocating for radical political and societal changes to avoid a mass extinction (Buzogány & Scherhaufer, 2022a; Cassegård & Thörn, 2018; de Moor & Marquardt, 2023).

Cassegård and Thörn (2018) suggest that instead of inducing passivity and hopelessness, postapocalyptic environmentalism offers new possibilities for activism by recognising and responding to ongoing environmental losses. By utilising the 'paradox of hope', false hopes are given up, new ways of adapting to the world are accepted, and collective action is incited (Cassegård & Thörn, 2018). Yet, activists may pursue apocalyptic trajectories and mitigation strategies while privately acknowledging postapocalyptic realities to prevent demotivation or hold both apocalyptic and postapocalyptic views, believing that some impacts of climate change can still be prevented while others are inevitable (de Moor, 2022; de Moor & Marquardt, 2023).

Regarding political order, FFF supports the existing liberal democracy, pushing for elected leaders to act decisively, while XR promotes a more participatory and deliberative democratic approach, where citizens have more direct control via citizen assemblies (Buzogány & Scherhaufer, 2022a). Even though XR criticises the current political system and the government lacking honesty, it avoids blaming anyone individually (Buzogány & Scherhaufer, 2022a; de Moor et al., 2021). FFF is more direct in blaming specific political actors and companies.

Economically, both movements criticise existing power dynamics and 'fossil capitalism' that hinder climate action, but FFF alternates between supporting market-based green growth and degrowth, whereas XR focuses more on radical individual change and consumption behaviour without being too explicit. FFF's heterogeneous position can be explained by internal conflicts and the risk to lose supporters with more radical ideas. XR, however, uses motivational framings addressing emotions to 'emphasize fear, anger but also awareness and self-empowerment' (Buzogány & Scherhaufer, 2022a, p. 7).

Lastly, taking a closer look at the epistemic order, it becomes visible that both groups 'use a large part of their external communication to highlight the the [sic] role of science, blame climate sceptics or simply promote scientific evidence and research results focusing on climate change' (Buzogány & Scherhaufer, 2022a, p. 7). The reliance on science helps the movement build legitimacy and intensify pressure in public debates. Nevertheless, FFF largely uses scientific facts strategically and to push for changes in policy, while XR works to make science more popular across different fields and educate people, for example through workshops (Buzogány & Scherhaufer, 2022a; Soßdorf & Burgi, 2022). This is also in line with Corry and Reiner's findings who found that activists from Climate Camps engage with policy agendas, suggesting

an association of support of radical changes with a high level of knowledge and interest in politics (Corry & Reiner, 2021). Buzogány and Scherhaufer (2022a) conclude that FFF's framings align more with mainstream discourses and institutions, making the group a key figure in Germany's political debates on climate and environmental policy. In contrast, XR's radical or utopian views and reliance on civil disobedience sets the group apart within the political landscape (Buzogány & Scherhaufer, 2022a).

In the late 20th century, 'various alternative movements [knew] much more clearly what they [did] not want (nuclear holocaust, nuclear pollution, militaristic budgets, capitalism, sovietism) than what they propose[d] to put in their place' (Downing, 1988, p. 169). Klinker (2023) argue that also the climate movement generally lack practical and visionary narratives that address the future needs of the population. Compared to previous climate movements, FFF and XR have introduced new elements to climate activism by mobilising large groups including many first-time participants, school pupils and girls. While focusing more on disobedient actions, these are also now aiming at local and national governments instead of transnational. Their diagnostic approach matches earlier campaigns but they base their prognostic framing more heavily on science which might lack clear visions for the future (de Moor et al., 2021).

Advancement of Frames

Bäckstrand and Lövbrand (2007, 2019) identified three major discourses in climate governance, also partly shaping the frames of movements: 'Green governmentality', 'ecological modernisation', and 'civic environmentalism'. Green governmentality supports a centralised, science-driven, top-down approach led by states and the UN. Ecological modernisation promotes a bottom-up process, involving individuals, companies, and governments, and trusts the free market to solve the climate crisis by promoting green growth. Civic environmentalism, rooted in radical green thought, calls for systemic change (slogan: 'system change not climate change'). It attributes climate issues to power structures like capitalism, advocating for climate justice and a complete shift away from fossil fuels (Bäckstrand & Lövbrand, 2007, 2019; Svensson & Wahlström, 2023). While climate protesters with leftist ideologies are more likely to adopt frames advocating for civic environmentalism and radical system change, right-leaning protesters tend to favour more individualised approaches and the ecological modernisation discourse (Wahlström et al., 2013).

Svensson and Wahlström (2023) categorised the prognostic frames used by FFF's protesters with two central dimensions: the type of change proposed and the agency component. The types of change are categorised as: system development, system change and individual change. The agency component identifies the primary actors responsible for driving change, which include: '1) the government or supranational institutions; 2) the market; 3) individual actors; and 4) civic actors' (Svensson & Wahlström, 2023, p. 8). Based on these two categories, they identified six prognostic frames (Figure 2).

Figure 2

Typology of Prognostic Frames According to Type of Change and Agency Component

	Type of change		
Agency component	*System development*	*System change*	*Individual change*
Government actors	Top-down system development	Top-down system change	
Market actors	Liberal market development		
Individual actors			Individual behavioural change
Civic actors	Civic system development	Civic system change	

Note. From 'Climate change or what? Prognostic framing by Fridays for Future protesters', by A. Svensson and M. Wahlström, 2023, *Social Movement Studies, 22*(1), p. 9.

Survey responses showed that most FFF protesters support top-down system development, emphasising government responsibility within the current system. A smaller group advocates for radical civic system change through collective civil action (Svensson & Wahlström, 2023). Younger protesters are more likely to favour top-down approaches and individual behavioural change, contrasting depictions of radical youth, but aligning with FFF's 'rhetoric of delegating the articulation of solutions to experts and politicians' (Svensson & Wahlström, 2023, p. 18) and its primary goal to pressure politicians to take action (de Moor et al., 2021). The civic system change is particularly articulated by people aged 31-70, men or non-binary, and people mistrusting the government. This creates a dilemma: relying on top-down methods cedes agency, while leading a bottom-up approach requires more influence and capabilities than the movement has. These tensions may present key challenges for the climate movement (Svensson & Wahlström, 2023). Between March and September 2019, the likelihood of respondents supporting civic system change increased from 12% to 17%, while support for civic system development decreased from 12% to 8%, indicating potential radicalisation within the movement and perhaps a 'lost belief that

the movement will be able to push leaders into change' (Svensson & Wahlström, 2023, p. 17).

Developing an effective communication strategy is crucial, because '[m]ovements such as Fridays for Future which occupy the space between the status quo and a more sustainable system have the power to introduce an idea into the media agenda that could slowly change our beliefs' (von Zabern & Tulloch, 2021, p. 43). In the past years, the climate movement has demonstrated its ability to place climate change on the political agenda (Marquardt, 2020). Since the first global climate strike by Fridays for Future in 2019, public opinion surveys have noted a consistent mentioning of climate change as one of Germany's most pressing issues (Riebe & Marquardt, 2022). Despite criticism of the movement's demands 'as unrealistic and the disruptive tactics it has used, climate action has changed the discourse from whether to how' (Buzogány & Scherhaufer, 2022b, p. 368), making previously unthinkable options like the coal exit viable and transforming activists into credible actors within the discourse (Buzogány & Scherhaufer, 2022b).

3.3 The Risks of Environmental Communication: Climate Populism

Populist Narratives Within Politics

Populism can be 'understood as an act of storytelling, most often by a charismatic "truth-teller", that employs a populist narrative frame' (Nordensvard & Ketola, 2022, p. 2). Populist narratives can help to understand complex issues such as climate change 'by adding a clear plot, friends, heroes and enemies' (Nordensvard & Ketola, 2022, p. 19). It functions as a performative and rhetorical strategy, rather than conveying specific content, and enables previously marginalised voices to participate in democratic discourse, highlighting the importance of social movements in promoting political and policy alternatives (Laclau, 2005). In fact, populist storytelling may play an important role in our political engagement with climate change (Nordensvard & Ketola, 2022). By employing 'empty signifiers' like 'people' and 'nation', which gain meaning through stories, heterogenous demands can be unified to form a collective identity (Nordensvard & Ketola, 2022; Ungureanu & Popartan, 2020). Within populist politics, narratives are emphasised where 'good people [reclaim] power from corrupt elites [, using] evocative stories drawing on mythical pasts, crisis-driven presents, and

utopian futures' (Taş, 2022, p. 128), offering the prospect of change (Nordensvard & Ketola, 2022). In addition, those narratives depict a change of state, transitioning from one situation to another, driven by a 'key event that disrupts equilibrium of ordinary, expected circumstances' (Ochs, 1997, p. 197). This transition is achieved through plot twists, involving opposing characters and forces (Nordensvard & Ketola, 2022).

The core concepts of populist narratives include the division between the people and the elite, their antagonistic relationship, popular sovereignty, the praise of the people and the criticism of the elite, and the claim of a present crisis (Moffitt, 2016; Rooduijn, 2014; Stanley, 2008). Moffitt (2016) refers to populism as a performance, with leaders acting as performers and people serving as the audience, and media and crises as their stage.

Populism is characterised by its 'combination of people-centrism and anti-elitism'. It uses simple and straightforward, as well as tabloid style and emotional language. Populist rhetoric highlights personalised communications, focusing on the leader and their charismatic bond with followers. According to Ungureanu and Popartan (2020), this leader, often a man, claims to represent the people's true will. This bond is described in collective terms as 'us', creating a united front between leader and supporters against the elite. The leader is positioned as the 'hero' of the common people, fighting for them (Stockemer & Barisione, 2017). Nordensvard and Ketola (2022) point out that '[t]he fear of elites leading acting against your interests and down the wrong path, towards doom, is a strong emotional narrative to mobilize people' (p. 19).

Trump and Thunberg as Populist 'Truth-Tellers'

Populist communication strategies have proven to be very effective in terms of increasing support and resonance among followers, becoming visible through the success of political parties and social movements (Lees-Marshment et al., 2019; Nordensvard & Ketola, 2022; Stockemer & Barisione, 2017). Two famous examples of contemporary populist 'truth-tellers' are Donald Trump and Greta Thunberg (Nordensvard & Ketola, 2022). Trump successfully made use of populist strategy, relying on market research and data to mirror public desires:

> Simplified, repetitive and emotionally-charged language; public attacks on liberal elites as well as any perceived outsiders; claims that he alone, as the

> party leader, would protect the country from the twin threats of economic globalisation and immigration – it was all intended to position Trump with his targeted voter groups as a populist defender of a forgotten Middle American majority. (Lees-Marshment et al., 2019, p. 34)

Trump communicates his climate change narrative through speeches and tweets where he acknowledges the issue but downplays its human causes. In formal speeches, he criticises the Paris Agreement as unfair to Americans, conveying the sense of a broken equilibrium. His social media posts further question climate science, drawing on lay experiences to challenge global warming. Trump frames climate policies as benefiting global elites at the expense of American workers, who will suffer from factory closures and wage declines. According to him, resistance to these policies is essential to protect the people's interests from the elite. He advocates for deregulation in order to return to a past (new) equilibrium of prioritising economic growth and wealth without taking proportional responsibility for carbon emissions (Nordensvard & Ketola, 2022).

Greta Thunberg's climate change narrative is consistent and formal, delivered through major speeches and social media. She frames climate change as humanity's greatest challenge, emphasising its severity and blaming political and economic elites for making the crisis even worse through inaction. Thunberg highlights global inequality, in particular the global South that suffers more from climate change. Her narrative is both scientific and moral, presenting two futures: one of disaster if action is delayed and one of hope if immediate measures are taken. She uses scientific data for her narrative of the broken equilibrium, such as the impact of a 1.5°C temperature rise, to stress urgency, and argues that delays are profit-driven at the expense of future generations. Thunberg's populist elements depict a generational struggle, with young people needing to act against the selfishness of older generations. Thunberg calls out the theft of dreams and childhoods by elite inaction, appealing to the audience's emotions and blaming older generations, and warns of irreversible tipping points leading to civilisational ruin (Nordensvard & Ketola, 2022). She 'accepts a difficult task on behalf of a collective despite doubts and personal sacrifice […] taking on the political work that adults ought to be doing while children [she] ought to go to school' (Olesen, 2022, p. 1332). Her speeches and posts use the 'I shouldn't be up here' frame to highlight that she and her generation are forced into political action by adult inaction (Olesen, 2022). She presents a straightforward, black and white solution, contrasting the complexity of the issue: 'a simple choice between continuing with business as

usual or stopping our emissions of greenhouse gases' (Nordensvard & Ketola, 2022, p. 16). She emphasises collective action, urging people to challenge elites and take progressive steps against climate change. Although she demands significant reductions in emissions, her narrative focuses more on the consequences of inaction than on detailing a new equilibrium, in form of a sustainable future (Nordensvard & Ketola, 2022).

Thunberg's use of populist tropes is surprisingly similar to Trump's, involving 'the pitting of people against the elite, crisis, black-and-white simplification of the issue, and "bad manners"' (Nordensvard & Ketola, 2022, p. 17). Additionally, both narratives frame the antagonistic relationship between the people and the elite within a discourse of crisis (Nordensvard & Ketola, 2022).

Populism in the Climate Change Debate

Moreover, the apocalyptic imagery often present in the climate change debate tends to be populist and depoliticises the issue. While it advocates for radical change, it does so within existing frameworks, preventing a fundamental change of the status quo of capitalism. Climate change is framed as a universal threat to all humanity and much of the non-human world, making everyone potential victims of uncontrollable climatic catastrophes (Swyngedouw, 2010). Here, populism creates a universal struggle between 'us' (people) and 'it' (CO_2/the environment), externalising ecological problems and solutions (Swyngedouw, 2010; Žižek, 2006). CO_2 becomes a symbol for all climate change issues, suggesting that the reduction of atmospheric CO_2 would restore the climatic status quo (Swyngedouw, 2010). This perspective ignores systemic issues such as power imbalances and injustices and instead blames an external entity (Swyngedouw, 2010; Žižek, 2006). While elites have acknowledged climate issues, they also claim that capitalism can solve them through technological and managerial solutions. This approach addresses populist demands while advancing the elites' own interests. Swyngedouw (2010) criticises that radical dissent and conflict are being removed from political discourse, resulting in a focus on consensus, negotiation, and technocratic management within a market-based socio-economic framework. This shift, he argues, creates a post-political landscape that silences alternative trajectories and limits the political debate that is needed to adequately address climate change (Swyngedouw, 2010).

3.4 Effective Communication Strategies

Challenges of Climate Change Communication

Despite the increasing prominence and dissemination of climate change communication since the late 1990s, carbon emissions continue to rise. This brings into question the effectiveness of such communication efforts and whether audiences have the capacity to enact meaningful change (Nerlich et al., 2010). Throughout their history, '[c]ommunication efforts […] have changed from persuading people that climate change is happening to persuade people to adopt practical measures to deal with it' (Nerlich et al., 2010, p. 98). Many actors, including governments, citizens, NGOs, businesses, researchers, international organisations, and celebrities, communicate about climate change to various audiences with different goals, such as raising awareness, supporting policies, or promoting business interests. Communication involves diverse interests like sustainable agriculture, renewable energy, health, social justice, and innovative technologies utilising various channels, such as text, talk, images, films, documentaries, and art (Nerlich et al., 2010).

Climate change communication faces many challenges. There is a lack of visible and tangible causes and impacts, as well as rewards for taking action. People often doubt humanity's ability to influence the global climate, and the issue's complexity and uncertainty add to the difficulty. Additionally, there are insufficient indicators to signal the need for change, and people's limited perceptions and self-interest further complicate effective communication (Moser, 2010).

Climate change remains largely invisible and its local impacts are difficult to predict, making it challenging for various communicators to effectively convey the potential risks of climate change. In Western countries, climate change is generally seen as an issue impacting other parts of the world and future generations, rather than having immediate effects on themselves. Therefore, comprehending and assessing both the scientific and cultural narratives of climate change is necessary (Nerlich et al., 2010). Effective communication can be achieved by creating a feeling of 'home' and tailoring information to social and geographical contexts (Adams & Gynnild, 2013). On the other hand, national framing may contribute to low public awareness of the severity of climate change and its global effects, and a lack of engagement (Areia et al., 2019; Spence & Pidgeon, 2010). Consequently, it is important to also frame climate change's impacts as distant (Spence & Pidgeon, 2010).

According to the 'deficit model', the general public is seen as passive recipients of information that will make rational decisions once they are informed (Irwin, 1996). Critics reject this approach and instead advocate for engaging people emotionally and exploring bottom-up, non-expert perceptions of climate change. Those who communicate about climate change, similar to science communicators, are encouraged to transition from a one-way approach to more interactive, dialogic, and reflective forms of engagement (Nerlich et al., 2010). Subjective elements are just as important as objective ones because '[k]nowledge and action emerge from ideas, practices, discourses, and perceived risks as much as from technical assessments of environmental quality' (Nerlich et al., 2010, p. 98).

Communicators should aim to engage the public not only rationally but to 'make the issue appealing, interesting, and meaningful to the individual', engaging 'understanding, emotion, and behavior' (Nerlich et al., 2010, p. 100). Effective communication on climate change requires a blend of verbal and visual strategies, tailored to the audience's values, fears, hopes, and context (Nerlich et al., 2010). According to Moser (2010), effective climate change communication involves framing the issue in ways that engage with different audiences, using clear and compelling metaphors and imagery, and through interactive and participatory methods in a consistent manner. Furthermore, 'messages must resonate with the target audience through the language used, the values to which the message appeals, and the social aspirations of the audience' (p. 40) in order to prevent an impairment of the message due to inconsistencies or mismatches (Moser, 2010). Personal relevance becomes an important factor for the evaluation of information (Sadler et al., 2004). Studies show that young people who view climate change as personally relevant are more likely to pay attention to, discuss, and share information about the issue (Yang et al., 2014). Due to climate change being frequently referred to as a generational issue, educational institutions, from secondary schools to universities, are considered crucial for communicating accurate climate science and policy advancements (Ward & Menezes, 2008). Studies by Sellmann and Bogner (2013a, 2013b) found that short educational programmes with nature contact increased climate change knowledge and reduced environmentally unfriendly attitudes. In addition, sensationally framed information on local climate effects, such as invasive species, led to greater learning and negative emotions among emerging adults (Otieno et al., 2014). Instead of designing

communication based on predetermined strategies, continuous studies of attitudes and engagement levels should inform how messages are framed and what content they include. Such insights can reveal what people know and believe about climate-specific topics and help to achieve a more effective communication on the risks and benefits of climate change across society (Nerlich et al., 2010).

While distress appeals may change attitudes, others, however, recommend always pairing these appeals with credible problem solutions (Futerra, 2005; Moffic, 2007). Gain frames are shown to be more effective than loss frames at enhancing positive attitudes towards climate change mitigation. They also heighten the perceived severity of climate change impacts (Spence & Pidgeon, 2010). Loss frames, instead, can lead to 'climate change fatigue' which involves feelings of emotional exhaustion and desensitisation due to constant exposure of climate-related threats (Almeida, 2024; Nerlich et al., 2010). The resulting feelings of helplessness and a decline of perceived risk and concern also lead to decreased attention to news about impending disasters (Kerr, 2009; Nerlich et al., 2010). Climate change creates cognitive dissonance, which people often avoid (Hiss, 2021; Spaiser et al., 2022). Effective communication should reveal the moral consequences of inaction, addressing people's emotional conflicts without invoking guilt (Coulter & Pinto, 1995; Hiss, 2021; Spaiser et al., 2022).

Leveraging Social Media and Grassroots Strategies

Social media enable interactivity and dialogue, facilitating citizen engagement in climate change mitigation efforts, and thus play an important role in achieving effective communication. Effective climate change communication on social media requires a combination of objective, approach, and interaction strategies tailored to the specific needs and contexts of different organisations (León et al., 2023). León et al. (2023) identified four objective strategies: '1. Developing a community; 2. Promoting environmental education and awareness; 3. Science popularization; 4. Briefing opinion leaders and decision makers' (p. 7). Another four strategies were found, aiming to approach citizens effectively: '1. Finding common ground; 2. Emphasizing here and now; 3. Focusing on the benefits of engagement; 4. Creatively empowering people' (León et al., 2023, p. 8).

According to the availability bias, people tend to perceive information as more valuable, credible and accepted the more they encounter it (Schwarz et al., 2007; Spaiser et al., 2022). Frequently heard messages are more likely to be considered to be

representative of the majority opinion which ultimately also influences public perception and policymakers (Spaiser et al., 2022; Weaver et al., 2007). Having influential (political) leaders on board is crucial to achieve widespread normative change, as they can leverage their power to drive legislative and societal shifts (Bicchieri & Mercier, 2014; Nyborg et al., 2016; Spaiser et al., 2022).

Meaningful changes in behaviour and climate require a 'conjoint effort in both science and technology and language and culture' (Nerlich et al., 2010, p. 105). Effective messages need proper infrastructure and government policies that integrate energy needs, environmental quality, and sustainability. Governments should foster debates to prioritise these areas and work with informed and active citizens. It is important to empower people with actions they can take, and engage social networks and opinion leaders (Nerlich et al., 2010). Although, while people attribute responsibility for environmental issues to governments, they have little confidence in their ability to address them (Burgess et al., 1998). Meyer, Peach, et al. (2023) found that tweets within the climate change discourse received most attention when they 'were mostly politicized and connected to calls for action, stressing present or future threats, or feeling the urge to criticize those in charge or thinking differently' (p. 289).

The emergence of community-based movements comes along with a new language which 'overlaps to some extent with the language used on government websites that exhort people to reduce their "carbon footprints" as well as with ethical lifestyles promoted by the media and advertisers' (Nerlich et al., 2010, p. 103). The growing significance of peer-to-peer influence over top-down approaches highlights the importance of examining how grassroots climate activist groups discuss and frame the issues and their actions (Nerlich et al., 2010). Combining methods based on discourse analysis and semiotics, Ereaut and Segnit's studies identified 'linguistic repertoires' that shape how people discuss climate change, influencing arguments and behaviour. They found 'alarmism' and 'small actions' dominant in media discourse. They suggest that locally organised initiatives, using the language of popular culture and everyday conversations, can connect with people on a deeper emotional level than possible with formal political and campaign language. Additionally, they have introduced a more positive and energetic climate change lexicon (Ereaut & Segnit, 2006, 2007). Using metaphors and storytelling, along with adopting colloquial language, can better align public understanding with scientific consensus (Hassol, 2008; Nerlich et al., 2010).

Effective communication strategies are ‘at the heart of any type of activism in order to share information, to raise awareness, as well as to coordinate mobilization and organize actions’ (Jacqmarcq, 2021, p. 43) and play a pivotal role for the success of these activities (Büssing et al., 2019). Jacqmarcq (2021) argues that ‘to achieve effective collective action and revive horizontal digital communication, we must promote deliberative expression, patience, and open-mindedness in our online conversations, especially when these are about our self-representation and the representation of nature’ (p. 50). Creating an open space for civil and thoughtful discussions will benefit the goals of the environmental movement and allow society to reconsider its beliefs about environmental protection (Jacqmarcq, 2021). Castro et al. (2017) also stress the importance of debate ‘which does not avoid conflict and does use arguments carrying counter-hegemonic meaning’ (p. 18), allowing deep, transformative social change. Deliberative democracy or discursive democracy frameworks envision the public as essential participants, that are involved in discussing, deliberating, and influencing issues (Dryzek, 1990, 2002).

Thomas-Walters and Young (2023) argue that not all disruptive strategies are effective. They suggest that climate activist groups should aim to pressure elite sectors to force political action on climate issues:

> Priority targets include the large institutional actors that enable fossil fuel production through their investments, loans, underwriting, and purchases. That includes entities like banks, insurance companies, asset managers, pension funds, universities, school districts, public transportation boards and housing agencies, and employers across all industries. (p. 13)

Klinker (2023) underlines the importance of finding a balance between intensifying the needed pressure on climate policy decisions and retaining and ideally enhancing public support and approval instead of losing it. In addition, it is crucial to network within the climate movement as well as to form broad alliances with actors outside the movement. By addressing the needs of the population, one can create shared goals which can boost societal engagement in environmental and climate protection and thus increase the necessary social pressure (Klinker, 2023).

4. Media Representation of Climate Activism

4.1 Portrayal of Climate Change

In addition to the communication strategies employed by the climate movement, the media play an important role in shaping society's understanding and beliefs regarding the environment and climate change (Boykoff, 2011). In fact, '[m]ass media representations may affect how translations between science and policy shape public perception of global climate change' (Nerlich et al., 2010, p. 99). Besides delivering factual scientific information, the media shape people's sense of self-efficacy and their willingness to take action (Ojala & Lakew, 2017; Wonneberger et al., 2020). However, a persisting social inertia regarding climate change hinders effective measures to address the issue (Plein, 2019). The media have the potential to mitigate this inertia, yet they have failed so far to effectively educate and engage citizens on climate change, thereby adding to the problem (Areia et al., 2019; Romps & Retzinger, 2019; Tavares et al., 2020).

Media Frames and Discourses

The mass media utilise framing to shape how viewers understand events, highlighting certain aspects of an issue while downplaying others (Entman, 1993; Scheufele, 1999). The interpretation of media messages, then again, also varies based on factors like education, media consumption in terms of TV and newspapers, and participation in interactive online platforms (Kahlor et al., 2006; Kahlor & Rosenthal, 2009; Maibach & Hornig Priest, 2009). When reporting on events, people, and places, numerous editorial decisions are made, such as what to cover in terms of newsworthiness (like sensationalism), who to quote, the language used, and the accompanying images (Ryalls & Mazzarella, 2021; Weingart et al., 2000). These choices, along with various 'contextual cues', frame a story for the audience (Kuypers, 2010). Frames result from journalistic routines influenced by the values of political and economic elites (D'Angelo, 2002). Dominant frames, if unchallenged, can restrict participation in debates and influence the extent of media coverage of a certain issue, potentially impacting regulatory decisions (Nisbet & Huge, 2006). Scheufele (1999) identified five factors that influence media framing: 'social norms and values, organizational

pressures and constraints, pressures of interest groups, journalistic routines, and ideological or political orientations of journalists' (p. 109). Media discourses play a crucial role in how individuals understand issues, such as climate change, by helping to clarify its complexities and influence both what people think and how they think about adaptation, mitigation, and governance (Gamson & Modigliani, 1989; Hayes & O'Neill, 2021; Schäfer & Schlichting, 2014). The collective discourse, rather than a single story, creates meaning (Gamson & Modigliani, 1989). There is a dynamic exchange where both media and audiences actively engage in shaping climate change representations (Hayes & O'Neill, 2021). In particular news media can play a crucial role in shaping discourses about climate change (Weingart et al., 2000). Shehata and Hopmann (2012) observed that media coverage in Sweden and the United States is remarkably similar despite differing national debates on the causes and political actions required for climate change. This indicates limited influence of national political elites on news framing (Shehata & Hopmann, 2012).

The Role of Images and Visual Frames in Media

Not only text can serve as frames, but also images. Imagery plays a pivotal 'role in either increasing the sense of importance of the issue of climate change (saliency), or in promoting feelings of being able to do something about climate change (efficacy)' (O'Neill et al., 2013, p. 420). In recent years, the use of visuals such as photos, infographics, memes, gifs, and short videos has grown in importance in news and social media, enhancing climate change communication by capturing attention, engaging audiences, and crossing cultural and linguistic boundaries (Schäfer & Yan, 2023). Additionally, images of global warming, designed to evoke emotional responses, can influence risk perceptions and predict national climate policies (Leiserowitz, 2006). They engage both our emotional and cognitive processes and prompt deeper engagement with news content and related issues (Domke et al., 2002; Joffe, 2008).

This visual framing, usually determined by editors rather than journalists, is ideologically driven and may differ from the textual narrative (DiFrancesco & Young, 2011; Fahmy, 2005; Hall, 1973). In the context of climate change, the employment of particular visual frames shapes public perception as well as the cultural politics surrounding it, normalising some viewpoints while marginalising others (O'Neill, 2013). O'Neill (2013) found two visual frames to dominate US, UK and Australian

newspapers: On the one hand, the ‘contested’ frame portrays climate change as a politically contentious issue, often featuring politicians and protests. The ‘distancing’ visual frame, on the other hand, uses images of distant effects and non-human nature to portray climate change as a faraway issue, which may reduce the sense of urgency and personal relevance. When these distant frames are paired with an absence of solution-oriented frames, their prevalence may hinder effective communication (O’Neill, 2013).

Challenges of Balanced Journalistic Reporting

Journalistic norms of balanced reporting can result in flawed scientific coverage and misunderstandings about scientific uncertainty (Boykoff & Boykoff, 2004; Kauth, 2020). Although publications in the United States like The New York Times have made significant improvements in their climate change reporting, others like The Wall Street Journal and Fox News continue to promote misleading narratives (Kauth, 2020; Mayer, 2012; Singer, 2018). It is worth noting here that The New York Times is generally perceived as leaning towards the liberal or left side of the political spectrum according to the political views of its audience, while The Wall Street Journal has a rather neutral to right-leaning bias and Fox News a conservative political leaning (Blake, 2014; Pew Research Center, 2012). Climate change deniers manipulate the concept of scientific consensus to cast doubt, despite overwhelming agreement among scientists on the human causes and dangers of climate change (Kauth, 2020). However, ‘[t]here can be no accurate balance when one side is true and the other false’ (Kauth, 2020, p. 245). This manipulation contributes to public scepticism and hinders action against climate change, worsened by the spread of misinformation (Kauth, 2020). Furthermore, Meyer, Rauxloh, et al. (2023) appeal to journalists when covering climate protests that ‘journalism should indeed strive to be fair and balanced, but this includes a responsible use of terms such as terrorism, criminals etc’ (p. 25).

The Role of Politics and Science in Shaping Climate Change Coverage

Political leanings significantly influence the extent and nature of climate change coverage (Bergmann & Ossewaarde, 2020; Dotson et al., 2012; Scheuch et al., 2024). In their study, Dotson et al. (2012) have found that a liberal newspaper in Chile published more articles on climate change, with longer texts and more illustrations,

than its conservative counterpart. While the liberal paper included a mix of news, opinion, and feature stories, depicting climate change as an ongoing issue, the conservative one focused mainly on hard news and isolated events. Both newspapers, however, used government sources more than scientific ones and emphasised problems over solutions (Dotson et al., 2012). Another study shows a similar pattern: Spanish media emphasise consequences over solutions and contributes to scientific uncertainty which can hinder effective public understanding and action on climate change (Lopera & Moreno, 2014).

Communication about climate change varies significantly among science, politics, and the media due to their distinct perspectives and specific risks (Weingart et al., 2000). Due to this, in the German discourse in 1975-1995 'scientists politicized the issue, politicians reduced the scientific complexities and uncertainties to CO_2 emissions reduction targets, and the media ignored the uncertainties and transformed them into a sequence of events leading to catastrophe and requiring immediate action' (Weingart et al., 2000, p. 280). These systematic discrepancies underline the importance to address not only environmental risks but also the risks inherent in the communication processes. They each face unique communication challenges: science struggles with maintaining credibility in the face of uncertainty, politics with making simplistic yet necessary decisions, and the media with reporting within the constraints of space, time, and audience comprehension. Although they have the ultimate authority on scientific truth, uncertainty can cause division within the scientific community. This makes it more difficult to communicate clearly and translate findings into rational actions (Weingart et al., 2000). In addition, the mass media, NGOs, various government branches, and concerned citizens regularly scrutinise and contest expert statements (Nerlich et al., 2010). Studies have found that uncertainty frames in media coverage and focusing on the economic costs of climate actions confuse the public about environmental science and decrease engagement with climate change (Boykoff & Boykoff, 2007; de Vries et al., 2016).

Media's Threatening Depiction of Climate Change

Swyngedouw (2010) argues that the ecological crisis is driven by millennial fears, apocalyptic rhetoric, and dramatic representations that signal an impending danger, that threatens to disrupt our everyday lives and routines. Not only do climate movements make use of apocalyptic imagery, but also the media. This becomes visible

taking a look at newspaper headlines and their apocalyptic phrasing. He argues that the 'environmentally apocalyptic future, forever postponed, neither promises redemption nor does it possess a name; it is pure negativity' (Swyngedouw, 2010, p. 219). Tavares et al. (2020) have found in their study that the European press heavily uses distant and outcome-focused framings on climate change which emphasise losses and future-framed academic debates while neglecting risk management and adaptation measures. Threatening climate change messages can induce fear, which was initially seen as a motivator for protective actions. However, without including solutions, fear alone often results in negative responses such as psychological pushback, discrediting the source, and downplaying the problem, which diminishes engagement in climate action (Nabi et al., 2018; Spence & Pidgeon, 2010; Tavares et al., 2020). In the case of young people, negative and fear-inducing coverage can disengage them and cause them to deny the existence of the crisis or externalise responsibility (El Zoghbi & El Ansari, 2014; Ojala & Lakew, 2017).

Furthermore, the media create a narrative suggesting that mitigating global warming is impossible, thereby promoting climate adaptation instead (von Zabern & Tulloch, 2021). The latter, however, only 'offers a short-term solution that responds to the effects of climate change rather than its causes' (von Zabern & Tulloch, 2021, p. 27), contributing to the de-politicisation of global warming (Methmann, 2014). This allows powerful polluters to evade global responsibility (Høeg & Tulloch, 2019). There is little knowledge exchange among actors, and common citizens are mostly excluded from the coverage and thus climate change debate, 'making it an exclusively institutionalized problem in which scientific, political, and technological narratives are considerably privileged' (Tavares et al., 2020, p. 10). To better engage the public, the media should make climate change more personally relevant, highlight solution-focused messages and success stories, and emphasise society's role in adaptation (Tavares et al., 2020). Additionally, reporting that emphasises the immediate and local impacts of climate change increases public awareness and engagement (Lopera & Moreno, 2014).

4.2 Portrayal of Climate Movements and Their Actions

Media attention is crucial for climate movements in order to attract new supporters and mobilise existing ones, and put pressure on powerful actors like companies and

politicians (Jacqmarcq, 2021). Media coverage has been shown to affect political elites' beliefs, positions and intended actions on a specific protest issue by providing cues about the public's demands. The most influential factors were the size of the protest and the unity among protesters (Wouters & Walgrave, 2017). In addition, the type of coverage plays a significant role: Positive news coverage of climate protests boosts pro-climate attitudes, while negative coverage diminishes them (Kenward & Brick, 2023). Yet, before 2018, protests only accounted for a small percentage of all climate-related news, even though it was found that they have a substantial impact on media coverage (Hase et al., 2021). Although research on news content like newspaper articles has grown, the understanding of the news production process remains limited. Particularly the role powerful individuals play in shaping content needs further exploration (Hayes & O'Neill, 2021).

The Protest Paradigm

Media framing is influenced by economic and political elites to uphold existing power structures (Smith et al., 2001). As a result, hegemonic ideologies are often reinforced (Curran, 1982; Høeg, 2017). Due to this, climate protests are often presented in a negative light, especially when they challenge the status quo (Hayes & O'Neill, 2021; von Zabern & Tulloch, 2021). The more a protest threatens the socioeconomic order, the less favourable the coverage (McLeod, 2007; von Zabern & Tulloch, 2021). This bias in media representation, known as the 'protest paradigm', generally portrays protesters as deviant, anti-social, and emphasises their confrontations with the police (Chan & Lee, 1984; McCarthy et al., 1996). Moreover, the protest paradigm reduces social protests to events rather than addressing their underlying issues, and by this delegitimises and marginalises them (Iyengar, 1991; Smith et al., 2001; von Zabern & Tulloch, 2021). Events like the FFF demonstrations, which challenge these power relations, may be framed to de-politicise their messages by focusing on the event itself (episodic framing) rather than the broader context or systemic issues (thematic framing) (Iyengar, 1991; Smith et al., 2001). When climate activists threw soup at a Van Gogh and Monet painting, for instance, British media emphasised the monetary value and potential damage to the paintings, downplaying the climate change message behind the protests and instead highlighting the criminal aspects (Kapranov, 2023). Kettrey (2018) argues that media coverage of youth activists gives them a voice but undermines their political agency, by framing them with apolitical narratives and

discrediting the entire movement by suggesting they are exploited by adults (von Zabern & Tulloch, 2021).

Visual Representation of Climate Protest

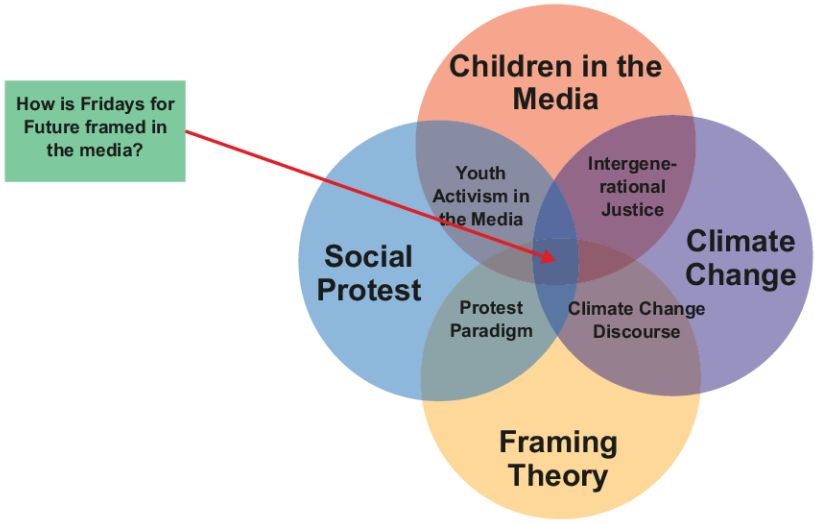
Hayes and O'Neill (2021) identified a shift in the visual representation of climate protest over the past two decades. From 2001 to 2009, many images in news reports about climate protests captured only 1-3 protesters which were often depersonalised, with their faces obscured. The protesters represented in the pictures were mostly middle-aged or older adults; none were younger than 18, and the gender distribution was relatively balanced (Hayes & O'Neill, 2021). A contested framing of climate change issues is facilitated by the confrontational narrative that is created by the demonstrators and the police's visual representation of each other as two distinct and opposed groups (Hayes & O'Neill, 2021; O'Neill, 2013).

Similarly, images of the police in 2019 'either show police and protesters engaged in a stand-off, or police physically arresting or moving protesters' (Hayes & O'Neill, 2021, p. 6). However, the image of a protester lying still while police try to move them, symbolising the movement's nonviolent ethos, portrays protesters as powerful and in control rather than weak or submissive (Hayes & O'Neill, 2021). Here, protesters are in focus and often depicted as expressing emotions or complacent while the police are depersonalised and 'a faceless force of authority' (Hayes & O'Neill, 2021, p. 6). Protesters in the 2019 imagery, particularly white, women and youth, are frequently captured in an individualised (1–3 identifiable protesters) and empowered manner, highlighting their faces and agency, reflecting a move towards a more humanised portrayal (Hayes & O'Neill, 2021). This suggests a shift away from the previous protest paradigm, which saw demonstrations as confrontational and a spectacle, to one that emphasises intergenerational justice. Now, young people are seen as influential and active, and the movement and its claims appear to be framed in a more sympathetic way (Hayes & O'Neill, 2021; von Zabern & Tulloch, 2021). The prominence of young women and girls in these visuals, known as the 'Greta Effect', underscores this trend and shows a significant move away from older visual narratives that marginalised these groups. Furthermore, rather than depending on international conferences like the COPs, the movement increasingly shaped media coverage through its own actions (Hayes & O'Neill, 2021). Particularly images that display protests or people receive high engagement rates on social media (Schäfer & Yan, 2023).

German youth were leading global FFF protests in 2019, a topic well-covered in the media (Bergmann & Ossewaarde, 2020; Haynes, 2019). Mass media coverage of the FFF strikes has the power to significantly influence the framing, perception, and prioritisation of intergenerational climate justice and global warming as critical political issues (von Zabern & Tulloch, 2021). von Zabern and Tulloch (2021) created an illustration (see Figure 3) which presents the relevant theorical intersections that emerge when analysing the framing of the climate activist group.

Figure 3

Theoretical Intersections of Fridays for Future



Note. From 'Rebel with a cause: the framing of climate change and intergenerational justice in the German press treatment of the Fridays for Future protests', by L. von Zabern and C. D. Tulloch, 2021, *Media, Culture & Society, 43*(1), p. 25.

von Zabern and Tulloch (2021) identified eight frames, each combining different visual and textual representations of protesters, their agendas, movements, and climate change: 'David vs Goliath', 'Intergenerational Justice', 'Truancy', 'Threat', 'Activist without Activism', 'Activism without Activists', 'Hamelin', 'Proxy Debate'. Their analysis of three German media outlets reveals differing portrayals of climate change protesters and their demands. *Bild* (sensationalist and conservative) disparages the demonstrators and reframes the FFF protests as a truancy issue, removing political implications. *FAZ* (conservative) subtly undermines the protesters and their agenda

through episodic coverage, aiming to maintain existing power relations (Rucht, 2023; von Zabern & Tulloch, 2021). In contrast, *Zeit Online* (liberal) depicts protesters with self-agency and emphasises intergenerational justice (eurotopics, n.d.; von Zabern & Tulloch, 2021). In two-thirds of the articles, protesters are discredited through negative portrayals, often depicting them as exploited or criminalised, adhering to the protest paradigm and ignoring structural explanations for climate issues. Only a third of the articles address intergenerational justice, shifting responsibility away from power elites and depoliticising the issue (von Zabern & Tulloch, 2021). Overall, German media coverage tends to '[de-legitimize] system critical voices through ageists, generalist, criminalizing and hyper-personalized perspectives' (von Zabern & Tulloch, 2021, p. 43) and emphasises adaptation over systemic change (von Zabern & Tulloch, 2021). Yet, it is important that children's demands are represented in the media due to their limited political participation. Framing climate change as a children's rights issue could point out the need for long-term solutions over short-term adaptations (von Zabern & Tulloch, 2021).

Bergmann and Ossewaarde (2020) investigated German newspaper coverage of FFF in order to uncover an ageist bias towards the young activists. By analysing newspaper articles of *FAZ* (conservative) and *taz* (left-wing), they have found four ageist media images: 'pupil', 'absentee', 'dreamer', 'young heroine'. These were used to frame young climate activists, influencing public perception. As ageism typically targets older adults, its impact on young people remains underexplored (Bergmann & Ossewaarde, 2020). Ageism creates divisions between perceived 'ingroups' and 'outgroups', with young people often being marginalised in public discourse and media (Moris & Loopmans, 2019). These portrayals can vary widely, from derogatory expressions to more favourable images of youth, and sometimes be unintentional. Social media, in contrast, tend to view older individuals negatively as an outgroup, while younger people are seen more positively (Gendron et al., 2016).

The most prominent media image (Bergmann & Ossewaarde) found was the 'pupil' one. Activists are depicted as pupils in both *FAZ* and *taz*, implying they are uneducated and belong in school rather than protesting. They are positioned as an outgroup, discrediting them from being an actual actor and subordinating them. Both newspapers engage in presenting the activists as 'absentees'. This label criticises them for skipping school, suggesting their actions are disruptive and illegitimate and criminalising them (Bergmann & Ossewaarde, 2020). Similarly, to the pupil image, 'also the absentee construct locates the young climate activist in school rather than in

public space' (p. 7), thereby diverting attention from the movement's actual interests and objectives. The 'dreamer' image, particularly found in *FAZ* coverage, displays the activists' demands as unrealistic, focusing on their youthful idealism and further undermining their credibility. Again, referring to them as children leads to their subordination under adults and portraying them lacking knowledge and seriousness. The 'young heroine', exemplified by Greta Thunberg, combines admiration with scepticism. Both *FAZ* and *taz* portray her as an icon and perfect example of environmentally conscious practices, while also comparing her to famous personalities. However, her young age still remains a focus which differentiates her from others, leading to an outgroup impression and derogatory ageism. However, while she is celebrated as a role model and leader, her portrayal is not separated from the pupil, absentee, and dreamer stereotypes, suggesting that the three media images become personalised with her (Bergmann & Ossewaarde, 2020). According to Bergmann and Ossewaarde's findings, media coverage varies:

> [I]n FAZ coverage, it is more frequently found that ageist images are created in relation to doubts or opposition to the claims of activists, whereas the taz seems positive about climate activism but still inherits ageist doubts on youth activism, its authenticity and 'childishness'. (2020, p. 18)

It becomes obvious, that *FAZ* shows more conservatism and scepticism towards climate activism (Bergmann & Ossewaarde, 2020). Interestingly, Thunberg is often portrayed as an icon, suggesting a recognition of environmental values without actively promoting them. *taz*, in contrast, does not question the impact of climate change, but the impact of youth activism (Bergmann & Ossewaarde, 2020). The interrelation of the pupil, absentee, and dreamer images suggests a coherent portrayal that marginalises young activists, by presenting them as uneducated, criminal, and lacking legitimacy (Bergmann & Ossewaarde, 2020).

As a teenage girl activist, Greta Thunberg symbolises a demographic that has only recently started gaining media attention and now has evolved from mostly ignored to celebrated figures. Frequently, the media tend to present girl activists as unusual and heroic, emphasising their age and gender, something that can lead to the reinforcement of girls as harmless and thus undermine their message (Bergmann & Ossewaarde, 2020; Taft, 2020). In the case of Thunberg, however, this portrayal does not diminish her framing as fierce. Physical descriptions often highlight her small size

and young appearance, resulting in a paradox of her being portrayed as both childlike and fierce. Her autism is framed as a 'superpower' and her whiteness is often highlighted in media coverage which make her seen as an idealised icon of the global climate movement. Nonetheless, this focus on Thunberg has likely led to less media attention for young Indigenous activists and those from the Global South. Numerous articles describe how Thunberg has faced harassment from conservative male politicians and pundits, who use mocking language targeting her age, gender, and disability. This behaviour exemplifies ableism, ageism, and misogyny (Ryalls & Mazzarella, 2021). Furthermore, her age is used to portray her as being controlled as a puppet by the lobby and elite groups (Olesen, 2022).

Political Bias in News Coverage of Climate Protests

Scheuch et al. (2024) explored news coverage of XR in the UK before and after its statement in January 2023 to end disruptive actions affecting the general public. They discovered that conservative newspapers consistently produced more negative coverage of climate activism than neutral or liberal sources. Both conservative and liberal newspapers tended to cover climate actions more extensively than neutral outlets. This indicates that climate activism might attract more attention from partisan media outlets. Legal actions received more press coverage than illegal actions, particularly those occurring nationally and those targeting industry, and attracted more positive coverage than illegal ones. Actions that targeted the public were covered more favourably than those targeting other groups, such as the government, elite or industry. The sentiment of articles after the group's 'We Quit' statement was either similar to or slightly more negative than before, suggesting no significant improvement in media sentiment after XR's tactical shift. Conservative newspapers were found to make more reporting errors compared to neutral or liberal ones which implies a lower level of accuracy in their coverage (Scheuch et al., 2024). This finding is supported by Painter and Ashe (2012) who found a correlation between a newspaper's political orientation and its tendency to feature or quote unchallenged sceptical viewpoints in opinion articles. This can present a problem because 'in a media landscape dominated by conservative media, public understandings of climate science, policy, and activism may be informed by low-quality information' (Scheuch et al., 2024, p. 22).

Meyer, Rauxloh, et al. (2023) report similar findings on news coverage of FFF and LG in Germany. They found that right-wing media showed high levels of

discursive polarisation even when covering conventional protests like FFF. However, despite being generally more sympathetic towards the protests, also mainstream and left-wing media adopted frames depicting protesters as extremists and criminals when covering more disruptive protests like those by LG. The study finds more polarised media coverage for disruptive protests compared to conventional protests. LG's protests are more frequently associated with negative emotions such as anger and toxic language, in particular prevalent in right-wing media but also in mainstream outlets (Meyer, Rauxloh, et al., 2023).

Kumkar (2022) claims that there is no significant evidence of actual radicalisation within the LG climate movement. Instead, the impression of radicalisation is largely a result of sharp reactions to certain protest forms, stemming from a dilemma faced by political actors: the attention generated by the protests forces them to respond, but engaging with the protesters' demands is politically unappealing. The moral panic surrounding these actions is self-reinforcing; the news keeps focusing on political criticism of the protests, which is then used to claim that the protests are becoming more extreme. This cycle can only be broken if new approaches emerge within the movement or if there is a substantial change in the media or political landscape (Kumkar, 2022).

4.3 Public Discourse

Public Sphere and Discourse

Public sphere is 'the realm of influence that is created when individuals engage others in communication - through conversation, argument, debate, or questioning - about subjects of shared concern or topics that affect a wider community' (Cox, 2010, p. 26). It can appear in the form of everyday conversations or formal interactions, through words or nonverbal symbolic actions, transforming our personal concerns into public issues that influence our own and others' perceptions (Cox, 2010). Discourse, as defined by Foucault, 'refers to groups of statements which structure the way a thing is thought, and the way we act on the basis of that thinking' (Rose, 2016, p. 136). It encompasses various forms of communication, including visual and verbal elements. Foucault viewed discourse as a form of discipline linked to power - not merely through suppression but by actively producing knowledge and thus, human subjects and their

realities. Discourse creates our self-perception and our perception of objects, relationships, and spaces by prescribing how they are understood (Rose, 2016). A discourse emerges from multiple sources - such as news reports or symbolic acts - including various meanings (Cox, 2010). Foucault emphasised that certain discourses become dominant not only because they are embedded within socially powerful institutions, but also because they claim absolute truth. Images, for example, are not seen as objective snapshots of reality, but as active tools that promote specific ideologies and reinforce dominant social structures (Rose, 2016). Dominant discourses 'express naturalized or taken-for-granted assumptions and values about how the world is or should be organized' (p. 63), while others question these and offer alternatives (Cox, 2010). These 'insurgent discourses' have expanded in today's mainstream and online media, questioning in particular prevailing understandings of the environment and economic growth and calling for environmental justice (Cox, 2010). Some scholars introduced the term 'alternative public realm' which enables environmental groups to connect with supporters and journalists through their own means. This allows them to establish a space in society where they can prioritise their own viewpoints and discourse and communicate them in their own words (Downing, 1988; Ting, 2015).

Brüggemann and Meyer (2023) proposed a framework to identify the dimensions of polarisation in media content, called 'discursive polarisation'. Both ideological and emotional polarisation are at play here, driven not only by the media content but also by how users interact with and spread that content. Their framework identifies ideological polarisation through 1) extreme frames in statements, 2) the formation of polarised networks amplifying ideologically-aligned content, and 3) dismissive, hostile interactions with out-groups (Brüggemann & Meyer, 2023).

Discourse on Fridays for Future and Last Generation

Meyer, Pröschel, and Brüggemann (2023) found out that over 18 months Last Generation created ten times more traffic and attention for its protests on Twitter compared to Fridays for Future. The Twitter discussion surrounding FFF maintained a much more consistent level of attention, with fewer and more evenly distributed peaks. FFF's engagement included a nearly equal number of original tweets and retweets (209,090 retweets and 236,721 original posts). In contrast, LG's engagement saw a higher proportion of original posts (1,782,527 retweets and 2,762,902 original

tweets), indicating more direct user interaction with LG's disruptive protests. Attention spikes for FFF correlated with its planned protest actions, particularly noticeable in March and September 2022, and March 2023, aligning with the global climate strikes. For LG, attention spikes were linked to its disruptive actions and reactions to external events, such as a fatal cycling accident in Berlin while activists were blocking a highway nearby which slowed down rescue forces due to the traffic created, or the searches of activists' homes by the General Prosecutor's Office in Munich. Thus, 'LG not only succeeded in drawing more attention, but also fostered increased interaction and genuine dialogue among online users' (Meyer, Pröschel, & Brüggemann, 2023, p. 12).

The discourse around FFF is more supportive (70%) and less extreme compared to LG. FFF supporters focus on action, democracy, and climate urgency, and place only little emphasis on criticising legal actions or violence against activists. However, a spike in extreme negative frames occurred in late March 2022 which coincided with FFF's global climate strike. During this time, discourse about LG was relatively low, suggesting negative sentiments were redirected towards FFF (Meyer, Pröschel, & Brüggemann, 2023).

LG's discourse, in turn, includes more extreme and toxic frames, with some tweets glorifying or encouraging vigilante justice against activists. 52.9% of the LG discourse in total featured frames against the movement and the discourse is highly polarised. The movement aims to attract attention and provoke societal disruption to highlight climate issues, even at the risk of being framed as extreme, facing accusations of terrorism, and legal actions (Meyer, Pröschel, & Brüggemann, 2023). LG's supporters view their activism as part of democratic processes, while opponents frame them as criminals or terrorists, leading to a popular use of the word 'climate terrorists' to describe them (Meyer, Pröschel, & Brüggemann, 2023; tagesschau, 2023). In particular by the end of May 2023, support for LG increased following the Bavarian public prosecutor's accusation of LG activists as a criminal organisation. This led to public solidarity against the criminalisation of climate protests (Meyer, Pröschel, & Brüggemann, 2023).

It has been found that '[t]he right-wing conservative cluster exhibits a predominantly negative attitude towards LG and FFF, while the left-wing progressive cluster displays a positive stance' (Meyer, Pröschel, & Brüggemann, 2023, p. 19). Frames discrediting protest goals or portraying activists as dangerous are mostly used by right-wing conservative clusters. Left-progressive clusters use frames emphasising

the dangers of climate change and peaceful protests (Meyer, Pröschel, & Brüggemann, 2023).

Regardless of the controversies surrounding LG's protest methods, the group succeeded in bringing climate policy issues to the forefront. The central question is whether such disruptive methods are required to address climate change and if their attention benefits outweigh the risks of increased polarisation. Climate action requires social cohesion, but using civil disobedience may complicate getting everybody on board and reaching this goal (Meyer, Pröschel, & Brüggemann, 2023).

Despite the effective agenda-setting on climate change by FFF through its global climate strikes and LG through its protests, recent surveys indicate a sharp decline in support for the climate movement (Klinker, 2023; 'Zwei Jahre „Klimakleber": Ist Die Letzte Generation Am Ende?', 2024). In 2021, the climate movement received broad support from 68% of respondents in Germany, but this figure dropped to 34% by 2023 (More in Common, n.d.). This loss of support 'extends to all climate protest movements and even general demands for climate policy actions' (Meyer, Pröschel, & Brüggemann, 2023, p. 2). The results of the European Parliament election in June 2024 reflect these developments. The Greens have significantly lost votes and the far-right is on the rise (Niranjan & O'Carroll, 2024). This underscores an alarming trend that raises questions about the reasons especially at a time when climate policies and actions are more urgent than ever.

Polarised Reactions to Radical Climate Activism

Feinberg et al. (2020) have found that participants showed less support for social movements using extreme protest actions, such as blocking highways and vandalising property. This negative reaction led to decreased support for the movement's core cause, driven by reduced social identification and perceived immorality of the actions (Feinberg et al., 2020). Many agree that radical climate activists are pursuing the right goals - however, with the wrong methods (SWR, 2023). This also highlights an activist's dilemma where extreme actions can reduce popular support despite raising awareness (Feinberg et al., 2020). Furthermore, while radical activists are seen as equally competent as moderate activists, they are perceived as less warm (Castro et al., 2017).

Saldivia Gonzatti et al. (2023) report similar findings: more radical protest forms like road blockades and attacks on artworks received less support and were seen

as less legitimate compared to demonstrations. Apocalyptic messages slightly increased the support and legitimacy of road blockades but had no significant impact on the support for demonstrations or artwork attacks. Despite negative short-term reactions to radical protest forms and a consequent damage to the reputation and sympathy for climate protests, however, support for general climate protection measures remained stable (Saldivia Gonzatti et al., 2023). This is also supported by Simpson et al. (2022). According to them, instead of leading to widespread rejection of the climate movement's overall goals, radical protest actions can boost support for the moderate, not so radical part of the movement (Simpson et al., 2022). Thus, it is crucial to examine why the support for the overall movement is declining, in particular when - according to some - overall concern regarding climate change is growing (Narawad, 2023).

On the contrary, Thomas-Walters and Young (2023) argue that the impact of disruptive tactics on elite decision-makers is more important than public support for activists. They suggest that news coverage has a minimal role in political outcomes, emphasising instead how effectively activist actions disrupt those in power. While debates on disruptive tactics tend to focus on public reactions, the key question is whether these strategies have the intended effects on elite decision-makers, also due to some variations in their effectiveness (Thomas-Walters & Young, 2023).

It becomes visible that the political orientation influences the support for the protests: while conservative people generally support climate protests less - independent from its form - radical protests especially diminish the support of people with left-leaning or centrist ideological positions who typically have stronger preferences for climate protection policies (Saldivia Gonzatti et al., 2023). Nevertheless, while the majority of German citizens reject road blockades, Green Party supporters are still the most accepting of them, whereas conservative and right-leaning individuals strongly condemn these actions (Kolvenbach et al., 2023; Rucht, 2023). Kumkar (2022) warns that the tone of media coverage against the climate movement, especially driven by the far-right, is alarming and could lead to violence against activists. This assumption has been supported by recent events where drivers have increasingly expressed their anger through violence against activists who glued themselves to the street and the aggressive and cynical tone found in the comment sections on social media (Zauner, 2024).

By labelling inconvenient journalistic truths as ‘fake news’, the former US president Trump has contributed to reducing public trust in the media (Kauth, 2020). Similarly, in Germany, the right-wing party AfD accuses the public service broadcasting and media to spread propaganda and lies (Steinwachs, 2024). While the advent of social media has facilitated the spread of misinformation, it also offers opportunities for resistance and the organisation of grassroots activism (Kauth, 2020). In addition, it is important to engage in conversations about climate change to combat misinformation, however, many Americans avoid to do so due to its politicised nature. In particular friends and family are trusted over the media, and conservations with them may lead to the reflection and reconsideration of previous beliefs (Kauth, 2020; Leombruni, 2015). However, presenting evidence that contradicts someone’s core beliefs can actually reinforce their original views, a phenomenon known as the ‘worldview backfire effect’ (Lewandowsky et al., 2012). This dynamic makes effective communication even more challenging. In addition, there is just a fine balance between feeling enough anxiety to be motivated and believing that effective change is possible (Nai et al., 2017). People are less motivated to address climate change because it does not present an immediate, personified threat (Gilbert, 2006). Due to only mildly visible effects, very few Americans, for example, recognise personal impacts from climate change (Akerlof et al., 2013), while climate scientists are increasingly alarmed (Richardson, 2018). This gap between public perception and expert concern underscores the challenge in mobilising effective responses to climate change.

5. Methodology

5.1 Research Design

To investigate the climate movements' communication strategies on social media and how news outlets with different political orientations report about them, a predominantly quantitative content analysis was conducted. The analysis had a strong comparative focus and was enhanced by qualitative observations and a framing analysis to provide a more nuanced and comprehensive understanding. A content analysis involves the systematic examination of communication materials, allowing for interpretative insights into how users perceive social conditions and understand representations of reality (Mayring, 2000; Rössler, 2017). A framing analysis, on the other hand, is used to qualitatively interpret how media and texts shape perception through specific narratives and themes or quantify the prevalence of certain frames across a dataset to identify patterns and trends (Entman, 1993; Kuypers, 2010). This also includes visual frames which can be analysed based on four levels: '(1) visuals as denotative systems, (2) visuals as stylistic-semiotic systems, (3) visuals as connotative systems and (4) visuals as ideological representations' (Rodriguez & Dimitrova, 2011, p. 48). This mixed-method approach enables a thorough examination of FFF and LG, as well as their portrayal in different news outlets, identifying patterns and highlighting differences. Additionally, a 'content analysis informed by a theory of framing would avoid treating all negative or positive terms or utterances as equally salient and influential' (p. 57), considering the audience's existing knowledge and understanding (Entman, 1993).

Quantitative content analysis focuses on the extent to which features A, B, and Z are present in specific text segments, providing insights into the structural characteristics of defined volumes of text. Data are statistically evaluated, with categories derived from existing literature and prior findings, and thus following a deductive approach (Früh, 2015). Conversely, qualitative content analysis considers the uniqueness of each text, using an inductive approach where categories emerge from the data. 'The material is to be analyzed step by step, following rules of procedure, devising the material into content analytical units' (Mayring, 2000, p. 3). The data is evaluated through interpretation (Mayring, 2000).

Both quantitative and qualitative methods are often intertwined throughout the research process, with their importance varying during different stages (Früh, 1992). This combination allows for both the identification of key themes within the study and an interpretative overview of the message's core content, enhancing the depth of analysis. Furthermore, inductive and deductive approaches are not exclusively tied to either qualitative or quantitative content analysis. The choice of approach depends on the study's purpose and can be combined (Elo & Kyngäs, 2008). The same applies to frames which can be derived inductively from data, deductively from theory, or both (Matthes & Kohring, 2008). The variables for the codebook were both deducted from theory as well as gathered inductively from a first examination of the available content. They were adjusted further throughout the pretest process.

To guarantee a legitimate investigation and meaningful results, it is essential to meet the criteria of validity, reliability and objectivity for the quantitative approach (Mayring, 2000). Validity ensures that the measurement accurately reflects the intended variables, reliability ensures consistent results upon repetition, and objectivity prevents unwanted influences (Krebs & Menold, 2019). These criteria have been modified for qualitative research (Flick, 2004). Researchers have not reached a consensus on which quality criteria are most appropriate, with various scholars suggesting different standards (Steinke, 1999). Nevertheless, there are four criteria which are frequently cited in literature (Bryman et al., 2008). Lincoln and Guba (2007) identified the following to guarantee trustworthiness: credibility, transferability, dependability, and confirmability. Credibility involves establishing confidence in the truth of the findings through techniques like triangulation, member checking for verifying interpretations, and prolonged engagement in the research context. Transferability refers to the extent to which findings can be applied to other contexts, achieved by providing detailed descriptions. Dependability ensures data stability over time through peer scrutiny and acknowledging the own involvement of the researcher's values and passions in the research process (Stahl & King, 2020). Finally, confirmability aims to achieve as much objectivity as possible, 'rely[ing] on constructs like precision and accuracy in their research practice and the involvement of other researchers' (Stahl & King, 2020, p. 28). The subsequent scientific process involves defining the sample material and analysis units, as well as identifying the features to be examined. These features are compiled into a codebook and then subjected to a pretest to assess their reliability and validity.

In order to guide the research and define the objective of this work, five research questions were formulated. They address both the communication strategies of the climate activist groups, as well as their media portrayal.

RQ1: Which strategies do FFF and LG use to convey their message and motivate action on Instagram?
RQ2: How do FFF and LG frame their messages visually and textually?
RQ3: What are the key differences in the communication strategies between FFF and LG?
RQ4: How are FFF and LG activists, their actions and concerns portrayed in German news outlets?
RQ5: How does their portrayal differ between conservative, liberal and left-oriented news outlets?

The first question deals with the groups' overall use of Instagram for the purpose of information, interaction and participation, reflecting the three key functions of online communication within climate movements in modern democracies (Emmer, 2019). The textual elements of the post are analysed in terms of strategies used by the groups to persuade the audience of their ideas. This includes the emotions conveyed in the post, the problems identified and their potential consequences in the absence of action, proposed solutions, methods of motivating the reader to take action, and, lastly, the use of populist rhetoric. Secondly, the frames utilised by the two climate activist groups are examined. This involves both the visual content, which is analysed using quantitative and qualitative methods, and a qualitative analysis of the textual frames found in the captions of the Instagram posts. The third research question investigates any existing differences between FFF and LG in terms of their communication strategies. RQ4 examines how the groups are portrayed in the three selected German news outlets, particularly with regard to framing, the speakers featured, the evaluation of the groups, protest variables and the protest paradigm, climate change variables, visual content, the portrayal of activists through visual elements, and finally the presence of visual frames. Lastly, the three news outlets are compared based on their political orientation to identify similarities and differences in how they cover the climate activist groups.

5.2 Population and Sample

FFF and LG were chosen as research objects due to their relevance to climate change and justice and their high level of awareness in Germany (Wenzel, 2023). As of July 2024, FFF Germany had 545,000 followers and published around 1,800 posts on Instagram since the account was created in October 2018 (Fridays for Future Deutschland, n.d.–d). In contrast, LG gathered 74,000 followers and published around 2,300 posts, despite its account being created three years later than FFF in October 2021 (Letzte Generation, n.d.–c). These high follower and post counts demonstrate the group's significant presence and influence on social media. Despite their different approaches, they share the same goal of combating climate change and influencing social conditions, constrained by limited political access. The focus on Germany is particularly interesting because the country is often considered a leading country on an international level regarding its efforts to reduce its greenhouse gas emissions (Jänicke, 2016). Yet, the 'CJM [Climate Justice Movement] partly challenges the dominant, innovation-oriented green growth discourse of "environmental modernization"' (Buzogány & Scherhaufer, 2022a, p. 3). In order to analyse FFF's and LG's communication strategies, the focus was set to the posts they publish on their Instagram account. Given that both groups are very active on Instagram and social media play a crucial role in their mobilisation efforts, it can be assumed that their Instagram posts reflect a significant part of their communication strategy.

The data collection was conducted over a two-month period, spanning from 1 August to 30 September 2024. This time period was selected due to its topical relevance, the occurrence of FFF's biannual global climate strike and a high volume of posts on FFF's account, ensuring a sufficient number of posts for comparison with LG. Due to the variations in the number of posts published by FFF and LG each month in 2024, selecting other months would have resulted in a low number of FFF posts, necessitating a longer time frame. However, extending the time frame would have significantly increased the number of LG posts, requiring a larger systematic sampling method, such as selecting every third or fourth post. This approach could have increased the risk of missing key protest actions or patterns. Furthermore, the chosen timeframe ensures that the analysis will capture the most current communication strategies, reflecting the latest approaches used by the groups. During the specified time period, a full analysis was carried out for FFF's Instagram account, resulting in

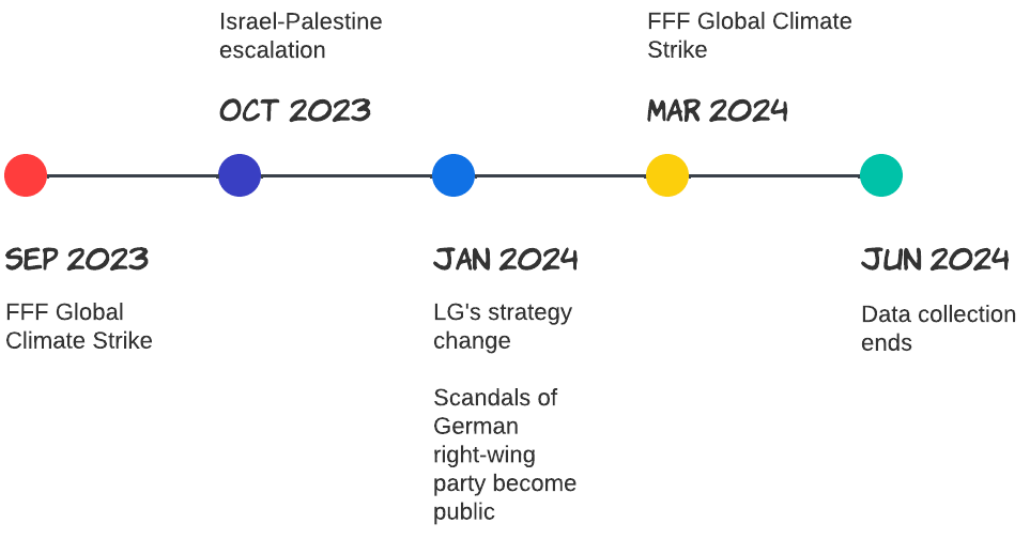
the collection of 65 posts. For LG, a systematic sampling of every second post was applied, providing a total of 91 posts.

To investigate the media portrayal of both groups, three different German online news outlets were chosen: *FAZ* (Frankfurter Allgemeine Zeitung), *Zeit Online* and *taz* (die tageszeitung). Each news outlet represents a different partisanship which not only allows a thorough examination of the representation of the climate movement in the German media landscape, but also enables the comparison of coverage in terms of political orientation. While *FAZ* is situated on the conservative spectrum, *Zeit Online* can be considered liberal and *taz* left-wing (Bergmann & Ossewaarde, 2020; eurotopics, n.d.). Additionally, they all have a wide online circulation range, ensuring a diverse audience. In March 2023, *FAZ* had 11.75 million unique website visits, *Zeit Online* 10.51 and *taz* 3 million (ag.ma, 2023a, 2023b, 2023c). Considering that Germany had approximately 84.7 million citizens in 2023, the high circulation numbers, in particular of *FAZ* and *Zeit Online*, underline their popularity and importance as key news sources in Germany (Statistisches Bundesamt, 2024).

For the data collection, a time period of eight months, from 1 September 2023 to 30 June 2024, was chosen. This is partly due to the biannual global strikes organised by Fridays for Future which always occur in September and March. The chosen time period covers two of these strikes and thus also the coverage that comes along with it.

Figure 4

Timeline of Major Events Mentioned in This Work



In addition, this period is characterised by various influential events such as the beginning of the Israeli-Palestinian conflict, mass demonstrations against the German right-wing party AfD and a farmers' protest, which are topics addressed by FFF. Last Generation, on the other hand, organises climate protests throughout the year, consistently generating news coverage. However, the period also covers its announcement of a strategy change in January 2024, which raises the question whether the coverage shifted following the announcement. The chosen sample included news articles, opinion pieces, commentaries and columns, while excluding interviews, reportages, newsletters and other articles. This selection allows a diverse sample including fact-based reporting, as news articles are typically written according to journalistic standards such as impartiality, as well as subjective opinions of journalists working for the respective newspapers. Only those articles that had a thematic focus on either one of the groups or the activists belonging to the group were included in the dataset, ensuring relevance and specificity. Articles that only mentioned the group in one or a few sentences, but otherwise focused on a different and unrelated topic, were excluded. However, protests and actions organised by the groups were included even if they were mentioned just briefly. In this case, they had to be discussed to a meaningful extent. In the case of Greta Thunberg, it was decided to also analyse articles covering her due to her strong association with the whole FFF movement and the significant impact of her actions also on the perception of the German chapter. For the specified time period, a complete survey was conducted for each news outlet, resulting in the collection of 91 articles from *FAZ* (FFF: 30, LG: 61), 76 articles from *Zeit Online* (FFF: 24, LG: 52) and 139 articles from *taz* (FFF: 52, LG: 87). The resulting 156 Instagram posts and 306 news articles were compiled into an Excel document.

5.3 Data Collection

The Instagram posts and news articles were collected manually. Posts were taken from FFF's and LG's Instagram accounts, with each post's link, a screenshot of the visual, and the caption copied into an Excel spreadsheet. Within the document, each post was assigned a unique ID, based on the chronological collection. To gather articles for this research, the keywords 'Fridays for Future', 'FFF', 'LG' and 'Letzte Generation' (German for 'Last Generation') were used to search the online archives of each news

outlet. Relevant articles, based on the specified criteria mentioned above, were collected in an Excel document by copying and pasting the link and title. Once the collection was complete, the articles were reviewed again, and duplicates - whether fully identical or differing only in title - were removed. In addition, the articles were downloaded to ensure long-term accessibility due to existing subscription models on the news outlets' online presences. Each article was assigned a unique ID to facilitate the location and reference throughout the analysis process.

After selecting the research material and defining the units of analysis, the next step consisted of the identification of coding units using both deductive and inductive methods. The coding unit is the individual feature that is significant for coding within an analysis unit. Coding units are organised into categories and essential for answering the research questions. This category system was operationalised in two codebooks - one for the Instagram posts and one for the news articles - which contain general guidelines, specific coding instructions, and both formal and content-related categories necessary for the content analysis. The codebooks also include examples to illustrate the coding process and ensure consistency among coders (Rössler, 2017).

Throughout the coding process, qualitative observations were systematically documented to enrich the quantitative data. Detailed notes were consistently added to post and article entries in the Excel document, as well as to respective variables. Particular attention was paid to both atypical or unexpected findings as well as exemplary cases that perfectly illustrated expected trends. This approach allowed for the collection of additional insights, contextual information, and notable patterns that the quantitative data alone might not fully capture or represent.

5.4 Operationalisation

To answer the research questions, it is crucial to '[specify] the exact operations involved in measuring a variable' (Babbie, 2013, p. 71). In other words, this step defines how a specific variable is measured and by this also partly determines the meaning of the variable. Operationalisation transforms concepts into empirically measurable characteristics, which is crucial for ensuring that abstract ideas can be systematically analysed and quantified (Babbie, 2013). It 'is the development of specific research procedures (operations) that will result in empirical observations representing those concepts in the real world' (Babbie, 2013, p. 177), meaning that

concrete variables make abstract concepts measurable. For this study, these concepts were operationalised: communication strategies, visual and textual frames, and media portrayal. In the following each concept is explained, as well as its derivation.

Communication Strategies – Instagram Posts

FFF's and LG's communication strategies in this thesis are measured by analysing the post as a whole, as well as the visual and the textual content individually, which includes both the text embedded within visuals and the captions of their Instagram posts. The visual analysis is conducted to address RQ2: 'How do FFF and LG frame their messages visually and textually?' and further explained in the next section regarding visual frames. Additionally, the type of visual and video format can be viewed as a deliberate choice and an integral part of the communication strategy, as they provide valuable insights into how they choose to present their message. They were developed inductively after reviewing the material and refined with the aid of the pretest. However, these two variables are examined as a formal category instead of a contentual one, like the following.

The contentual analysis considering the entire post focuses on existing collaborations with the group's local chapters, other environmental organisations, or celebrities which can be either tagged in the visual or mentioned in the caption. This helps to understand how they organise and whether they collaborate with other groups or celebrities to boost their visibility and mobilise support (Duvall & Heckemeyer, 2018). Furthermore, the analysis incorporates the predominant emotion conveyed, which can be expressed through both the visual and the caption. Emotions, in particular anger, fear and hope, can act as key drivers of action (Buzogány & Scherhaufer, 2022b; Kleres & Wettergren, 2017). This variable is designed to explore how these emotions, as well as sadness and joy, align with previous research findings. The selection of emotions is primarily based on the just mentioned studies, along with insights from the bachelor's thesis by Kober (2022).

The groups' communication strategies are further evaluated by examining the textual content in relation to specific elements. Their diagnosis of a problem and its associated consequences are assessed through variables such as policy criticism, climate change causes and impacts, adherence to science, apocalyptic and post-apocalyptic rhetoric, the activists' legal struggles, and their confrontations with the police. They are based on several studies such as Klinker (2023), Buzogány and

Scherhaufer (2022a), Cassegård and Thörn (2018), de Moor and Marquardt (2023) or Spence and Pidgeon (2010). Their proposed solutions to the identified problem are evaluated by examining whether they suggest action plans to reduce individual carbon footprints, offer positive solutions such as investing in renewable energy, or present demands that range from more general goals (e.g., increased climate protection) to more specific ones (e.g., phasing out fossil fuels by 2030). Furthermore, the ways in which the groups encourage their audience to take action are explored. This includes analysing whether they call for support of the movement or protest actions, highlight their previous successes to inspire hope, or refer to nature to foster a stronger connectedness. These variables were partly derived inductively or based on previous work (Buzogány & Scherhaufer, 2022a; Futerra, 2005; Kober, 2022; Spence & Pidgeon, 2010). Finally, the analysis examines whether populist rhetoric is present in their communication. Populist rhetoric includes elements such as an 'us vs them' narrative, anti-elite sentiment, emotionally charged language, appeals to 'the people', black-and-white simplifications, and whether they highlight the presence of a crisis. These variables were derived from Nordensvard and Ketola's (2022) work.

Visual Frames – Instagram Posts

The visual framing strategies are analysed by first closely examining the content on a denotative level using quantitative methods. Secondly, the content is interpreted qualitatively to identify potential patterns or constellations that suggest specific frames, drawing on the concepts of visuals as stylistic-semiotic systems, connotative systems, and ideological representations (Rodriguez & Dimitrova, 2011). The analysis focuses on how the groups convey their messages and goals through the selected visual elements.

Textual Frames – Instagram Posts

The textual frames are examined qualitatively with a focus on collective action frames, drawing on the work of Buzogány and Scherhaufer (2022a) and Snow and Benford (1988, 1992). While the primary emphasis is on collective action frames, the master frames - climate justice, political, economic, and epistemic order - identified by Buzogány and Scherhaufer are rather used to better understand the context in which these collective action frames emerge. The analysis involves diagnostic, prognostic,

and motivational frames to explore in detail the problems the groups identify, the solutions they propose, and how they motivate the audience to support those solutions.

Media Portrayal – News Articles

The media portrayal in the news outlets can be assessed through various elements on different levels. Formal categories address aspects like article length, author attribution, and text type, while contentual categories focus on either the entire article, the text alone, or the visual content exclusively. The whole article, including text and article image, is investigated in terms of its main focus. This includes whether it discusses the specific group, individual activists, or the climate movement as a whole; whether it addresses climate-related issues or other topics such as the Israeli-Palestinian conflict; and whether it covers protests, other forms of activism, legal consequences, demands, internal dynamics, or reactions and controversies surrounding the group. A clearer understanding of the focus allows for a more accurate classification of portrayals, helping to identify differences without distorting the overall results. It also sheds light on how the media present the groups in varying contexts, offering insights into potential biases or shifts in tone depending on the subject matter. These variables were developed inductively after the initial review of the material, during which some differences were already observed. In addition to that, the entire article is analysed based on eight frames 'containing combinations of protester, agenda, movement and climate change representation on a visual and textual level' (p. 34) identified by von Zabern and Tulloch (2021). These frames provide insights into the author's representation of the activists and include: David vs Goliath, Intergenerational Justice, Truancy, Threat, Activist without Activism, Activism without Activists, and Hamelin. Each frame captures different narratives or perspectives on the activists and their actions.

By examining the article text, it becomes possible to better understand which actors the author cites and whether the activists are given a voice (Ryalls & Mazzarella, 2021). Additionally, the analysis of tone can reveal how the author evaluates the activists and their actions, along with whether the activists' demands and public opinion are mentioned. While they were mostly derived inductively, the tone variable and its definitions are inspired by Hug's (2023) bachelor thesis. Furthermore, the article is analysed for protest-related variables, such as whether the protest occurred in collaboration with other groups, whether it was legal, and if the target of the protest is

mentioned. These variables help to classify the protest and its portrayal and were partly derived from Scheuch et al. (2024). The framing of these protests in either an episodic or thematic manner then provides further insights into the author's approach to reporting on the activists, perhaps differing depending on the type of protest and other variables (Iyengar, 1991; Smith et al., 2001). This is also analysed through the lens of the protest paradigm, which seeks to determine whether the author undermines or discredits the activists in any way through their choice of words. This category and its variables are based on various literature such as von Zabern and Tulloch (2021), McCarthy et al. (1996), Chan and Lee (1984), Kapranov (2023) and Kettrey (2018). Finally, the presence of climate change variables is also of interest, particularly if the author contextualises the activists' actions and demands by explaining the underlying reasons and motivations behind them (Swyngedouw, 2010; Tavares et al., 2020; von Zabern & Tulloch, 2021).

The visual content is analysed by examining the accompanying article images on a denotative level. This includes assessing whether activists, protests, the police, climate change-related or other elements are depicted, with the variables developed in an inductive manner. When activists are shown, additional factors are considered, such as their age, gender, number of activists, facial expressions, camera angle and distance, etc. to understand how they are displayed. This category and its variables were mainly derived from Hayes and O'Neill (2021) and complemented inductively, to also consider the facial expression and whether prominent activists are present. Lastly, two visual frames are considered, based on O'Neill (2013): the contested frame, in which climate change is portrayed as a politically contentious issue with conflicting entities, and the distancing frame, where climate change is presented as a distant or far-away issue.

The inclusion of all these variables contributed to a more comprehensive and nuanced understanding of how activists, their actions, and their demands are portrayed. Examining these factors allowed for an assessment of whether activists were portrayed in a favourable or unfavourable light, whether their voices and concerns were adequately represented, and how their motivations were framed. This approach not only assessed the media's depiction of the activists but also shed light on the extent to which their actions and demands were legitimised or marginalised within public discourse.

5.5 Codebook

Two standardised codebooks, one for the Instagram posts and one for the articles, were developed to enable a systematic coding of the text, images and frames used. The creation and structure of the codebooks are based on Rössler's work. They include specific instructions for the coders and the criteria for processing the research material, in formal and contentual categories. Formal coding units are manifest facts that can typically be measured, counted, or transcribed and do not require inferences by the coder. They a play crucial role in later evaluations, serving as criteria for differentiation or as weighting factors when interpreting contentual categories (Rössler, 2017). As for the Instagram posts, the following formal categories were formulated: Instagram channel, post ID for identification purposes, post link, publication date, number of likes and comments, caption, hashtags, type of visual, and video format. While the publication date, as well as the number of likes and comments, provide insights into the posting frequency and effectiveness of the communication strategy, elements such as hashtag selection, the type of visual content, and - where applicable - the type of video, are essential for the overall strategy. Including the contentual categories, a total of 61 variables were analysed for the Instagram posts. For the articles, formal categories include the group, article ID, article link, news outlet, publication date, title, kicker, lead, length of the article, author, and type of text. Here, the publication date and length of the article help to offer a deeper understanding of the level of attention each group receives from the selected news outlets, and the type of text offers clues about how factually the outlets choose to report on them. In total, 81 variables, including contentual categories, were analysed for the news articles. The corresponding Instagram post or article, depending on the analysis, serves as a contextual unit. Further research may be necessary to clarify certain unknown aspects that arise during the analysis, such as identifying mentioned individuals who are unfamiliar to the coder.

Categories must be complete, exclusive and selective. Completeness ensures that all relevant categories are included in the system, preventing the omission of important information. Selectivity ensures clear distinctions between categories, making them mutually exclusive so that content can be unambiguously assigned to a single category without overlaps (Rössler, 2017). In order to achieve these requirements, the development of categories based on empirical data must be methodologically supervised, easily replicable by different researchers, and effectively

communicated (Wirth, 2001). The principles were considered during the development of the codebooks and reviewed again during the pretest.

5.6 Pretest

Once all relevant categories for the codebooks were recorded, the next step involved conducting a pretest to verify their effectiveness. A pretest aims to assess the comprehensibility of the codebook and identify any ambiguities of categories or variables that need refinement (Rössler, 2017). For this purpose, a random sample of 16 social media posts and 34 news articles was selected from the entire study material, covering approximately 10% of the posts and 11% of the articles. Specifically, 7 Instagram posts were sourced from Fridays for Future and 9 posts from Last Generation. As for the news articles, 9 articles belonged to *FAZ*, 9 to *Zeit Online* and 16 to *taz*. The selection process was based on a random number generator that selected out of all posts and articles collected.

The material was coded by two people, the author and a second coder, to ensure intercoder reliability. The second coder was selected based on their ability to speak both German and English, so they are able to understand both the social media posts and articles in German as well as the variables and their definitions in English. Prior to coding, the codebooks and any questions regarding individual categories were discussed with the second coder to ensure clarity. Throughout the coding process, any thoughts or discrepancies regarding the variables and explanations were documented on both sides.

The pretest evaluation involved a reliability test, calculating Cohen's Kappa for each category to measure reliability. The Kappa value ranges from -1 to 1, whereby the 'maximum value of kappa is 1.0, indicating perfect agreement [and] a value of 0.0 indicates that the observed agreement is the same as that expected by chance' (Flack et al., 1988, p. 321). For example, a reliability score of 0.80 means that 80% of the differences in the scores are due to what was actually tried to be measured, while 20% represents random variation (Landers, 2015). Followingly, the higher the value, the better the agreement between coders. Kappa values between 0.61 and 0.80 are considered 'substantial' and values between 0.81 and 1.00 are viewed as 'almost perfect' (Landis & Koch, 1977). According to Döring et al. (2015), values of 0.75 or higher are considered very good by conventional standards. This led to the conclusion

to aim for values of at least 0.75, though values as low as 0.60 were considered acceptable. Categories that showed an intercoder agreement below 0.75 were revised. In order to ensure validity, a discussion with the second coder was carried out who provided feedback on the coding process and any ambiguities that were noticed. This process ensured that the quality criteria of completeness and selectivity were met (Brosius et al., 2016). The coding results were analysed using SPSS, which helped identify categories needing further revision and those with satisfactory intercoder reliability.

Pretest - Instagram Posts

The pretest conducted on the Instagram posts revealed a perfect agreement for all formal variables except for 'type of visual' and 'video format'. While 'type of visual' still received a very good agreement with a value of 0.774, 'video format' fell below the acceptable threshold, scoring only 0.5. This discrepancy resulted mainly from different interpretations of the characteristic 'promotional montage' which was revised to prevent future inconsistencies.

Taking a look at the contentual variables, the pretest revealed mostly satisfactory results. Due to the frequent presence of both 'anger' and 'hope' in certain posts, these emotions were occasionally coded differently for the 'emotions' variable, resulting in an agreement score of 0.595. The second coder interpreted some posts as neutral, whereas the author of this thesis still identified and coded an emotion. The variables related to tagged accounts and the presence of actors and elements within a visual were consistently coded the same. They either showed perfect agreement with a score of 1.0 or, in cases where the variable was absent in the selected sample and coded 0 for all posts, Kappa could not be calculated. Most of the other variables showed a strong intercoder agreement with values above 0.75. Few variables, which fell below the threshold, were revised: 'legal struggles' (0.6), 'confrontations' (0.709), 'us vs them' (0.625), 'anti-elite sentiment' (0.625), 'presence of crisis' (0.478), and 'prognostic frame' (0.636). Additionally, Kappa could not be calculated for the variables 'action plan', 'solutions', 'connectedness to nature' due to the absence of these elements, as well as for 'diagnostic frame' because of the lack of 0-0 agreements. All coding differences were discussed with the second coder to identify the underlying reasons for the variations in interpretation and definitions were added to the variables

to ensure a clear understanding. Overall, this pretest revealed a strong intercoder agreement.

Furthermore, four variables were added based on their observed presence during the pretest. Three of them - 'nature and animals', 'infographics', and 'logo' - were introduced for the visual analysis to capture not only textual but also visual representations of nature and science, alongside branding choices reflected in the logo. 'General goals' was added to account for observed calls for climate protection, in particular by FFF, that were previously not included under 'specific demands' due to their lack of specificity. These new variables were developed and thoroughly discussed with the second coder to ensure a shared understanding and consistent application.

Pretest - News Articles

Taking a look at the pretest conducted for the news articles, all formal categories except one achieved a reliability of 1.00. The category 'type of text' still reached a good agreement with a value of 0.714 due to different categorisations of 'news article' and 'opinion piece' when few subjective phrases were present in the article that were weighted differently by the two coders.

The coding of the contentual categories revealed varying values of reliability. The category 'frames' achieved the lowest agreement of -0.030 due to a scarcity of relevant frames in the selected sample and four occurrences of miscoding. Additionally, the initial coding instructions, which asked coders to only apply this variable to articles covering protests, proved to be inadequate during the actual coding process. This contributed to the low number of coded frames and followingly the low agreement. The definition was revised and any unclarities were resolved by discussing it with the second coder. When analysing 'who gets to speak' in the articles, a discrepancy arose in distinguishing between 'protesters' and 'environmental organisations' when activists spoke on behalf of their groups. This inconsistency led to both variables achieving an intercoder reliability score of 0.580 each. Furthermore, following observations from the pretest, additional variables were introduced to this category to include frequently mentioned entities that were previously coded as 'other' and to differentiate between activists belonging to FFF or LG and those from other organisations. These new variables included 'trade unions', 'companies' and 'judiciary'. Further variables that received low values are 'collaboration' (0.462) and 'target' (0.0) due to the fact that these protest variables should only be coded if the

article covered a protest and this occurred rarely. Additionally, the second coder had different interpretations for street blockades, viewing them as disruptions with the public as a target, while the underlying purpose was to draw government attention to climate issues. A new characteristic labelled 'unclear' was added to avoid coding based on interpretations that go beyond the explicit content of the article. Another variable that received a low intercoder agreement was 'protester and police in confrontation' (0.393). Definitions were added to clarify that it should only be coded when there is a direct interaction between activist and police instead of the mere presence of police during a protest. Furthermore, it was noticed that terms such as 'Klimakleber' (climate gluers) were not assessed as derogatory by the second coder, likely because of the frequent use in the media that normalised its offensive meaning. As for these variables belonging to the protest paradigm, questions arose whether citations should be included or if the focus should be exclusively on the author's writing style. After careful consideration, it was decided to concentrate solely on the author's approach which was clarified in the codebook. Given the scarcity of occurrences and their perceived irrelevance during the coding process, the variables related to 'girl activists' were removed.

Taking a look at the coding of the article image, it became evident that photos depicting a hand glued to the street were inconsistently categorised. One coder recorded only the glued hand, while the other one also noted the presence of an activist and classified it as a street blockade. In addition, uncertainty arose in terms of the number of activists shown when some were in focus and others not. Three characteristics were also added to the variable 'facial expression': one to account for serious expressions, one for being in pain, and another to address instances where a group displays a mix of different expressions. Furthermore, a variable called 'speech' was added to capture situations when activists were holding a speech, while variables related to nature were removed from the codebook due to their complete absence in the analysed content.

All categories that reached a reliability between 0.5 and 0.7 were revised to ensure the highest possible reliability for the actual coding process: 'context', 'thematic focus', 'protesters', 'experts', 'environmental organisations', 'other' (sources), 'episodic/thematic framing', 'tone of coverage', 'framing of activists' goals', 'criminal protester', 'climate change solutions', 'climate change adaptation/mitigation', 'activists' (image), 'mass protest' (image), 'street blockade'

(image), ‘criminal activity’ (image), ‘facial expression’ (image), ‘age’ (image), ‘distance’ (image), ‘Lina Johnsen’ (image), ‘contested frame’ (image).

Categories with a low intercoder agreement were discussed in-depth with the second coder and thoroughly examined to provide clear definitions and examples to ensure a shared understanding: ‘frames’, ‘collaboration’, ‘target’, ‘public opinion’, ‘exploited protester’, ‘protester and police in confrontation’, ‘derogatory terms’, ‘climate change immediate and local impacts’, ‘number of protesters’ (image).

An ongoing challenge was varying interpretations and coding decisions in different contexts. To address this issue, the codebook was revised to provide clearer definitions and guidelines on when and how to code certain variables. Furthermore, multiple variables only occurred in few articles. In these rare cases, when coders disagreed on how to categorise them, it resulted in disproportionately low reliability scores for these variables. Calculating Cohen’s Kappa was not always possible for these categories, particularly for dichotomous variables. This issue affected several elements, including some sources (‘education officials’, ‘parents’), one climate change variable in text (‘distant’) and several image variables (‘politicians’, ‘nature’, ‘weather’, ‘sci-tech’, ‘impacts’, ‘causes’, ‘Carla Reemtsma’, ‘distancing frame’). These categories were also discussed with the second coder to guarantee a correct understanding. Due to some confusion, some variable names were adjusted as well.

Finally, the pretest revealed that the categories did not work well for articles that only mentioned the groups on the side and had a different thematic focus. This observation led to a reduction of the sample from 436 to 306 articles, ensuring that only articles are included that provide substantial information about the groups.

5.7 Discussion of Methodological Limitations

It is important to acknowledge a few potential limitations. Since the data collection and analysis were carried out solely by the author, intercoder reliability could not be applied during the actual coding process. This might have led to a less objective analysis, although efforts were made to reduce subjective interpretations to a minimum by using a detailed codebook and clearly defined categories which were optimised after the pretest.

The significant difference in the frequency of Instagram posts between FFF and LG led to the use of different sampling methods for the analysis of the

communication strategies. While a complete survey was employed for FFF, LG's sample was collected systematically. However, using two different sampling methods increases the risk of result distortion. Additionally, even with the systematic sampling of every second post, this approach may have missed some posts. Despite these limitations, the sample likely reflects a representative range of published content, particularly as LG often posted multiple times on the same topic. In addition, the data collection period was limited to two months to better balance the volume of posts with those from FFF and to avoid the need for an even larger systematic sampling approach.

Another possible constraint in this study arises from potential discrepancies in interpreting certain variables borrowed from previous research. While some variables were clearly defined in their original studies, others were missing detailed explanations. Due to the absence of definitions for these variables and slightly different cases of application, the author of this thesis formulated her own interpretations based on the available information and literature. This approach may add some degree of subjectivity and could potentially impact the comparability of results across different research contexts.

Finally, although the pretest mostly revealed satisfactory to very good results, a few variables fell below the acceptable threshold, and some new ones were introduced. These revised variables were not re-evaluated for intercoder reliability in a second pretest, so it is unclear if the adjustments improved consistency. To help address this, however, both coders engaged in in-depth discussions to align their understanding of the variables and their definitions.

6. Results and Interpretation

6.1 Presentation of Results

Prior to analysis and interpretation, the dataset underwent a cleansing process which involved the examination for logic inconsistencies, missing values and completeness. Once the data's accuracy was verified, it was imported into the statistical calculation programme SPSS.

First, descriptive analyses were conducted and graphs were created to summarise and explore the dataset's key characteristics and distributions. While these analyses quantify each variable, they also help to identify patterns and anomalies. In order to assess the statistical importance of the observed variations in the data, chi-square analyses were performed. The chi-square test 'is one of the most useful statistics for testing hypotheses when the variables are nominal' (McHugh, 2013, p. 143). The lower the probability value, the stronger the evidence against the null hypothesis and the more statistically significant is the result. The p-value of 0.05 is a commonly used reference point. In order to understand the effect strength, however, another test needs to be conducted. After obtaining a statistically significant Chi-square result, Cramer's V is typically employed as a measure to evaluate the strength of the association between variables (McHugh, 2013). J. Cohen (1988) proposed widely accepted guidelines for interpreting effect sizes, suggesting that Cramer's V values can be categorised as follows: 0.1 indicates a small effect size, 0.3 a medium, and 0.5 a large effect size. Furthermore, in order to examine correlations between metric and nominal variables, the Eta coefficient was calculated which describes the strength of the relationship. To interpret the resulting value, it was squared and compared with established definitions for the effect size: 0.01 represents a small effect size, 0.06 a medium, and 0.14 a strong one (J. Cohen, 1988). If a medium or strong relationship between two variables was found, statistical significance was calculated using a one-way ANOVA (analysis of variance) to ensure that this relationship was not due to chance. The subsequent analysis of the data was conducted by examining each research question separately.

The evaluation methods were partly guided by the studies of Buzogány and Scherhaufer (2022a), von Zabern and Tulloch (2021), O'Neill (2013) and Hayes and

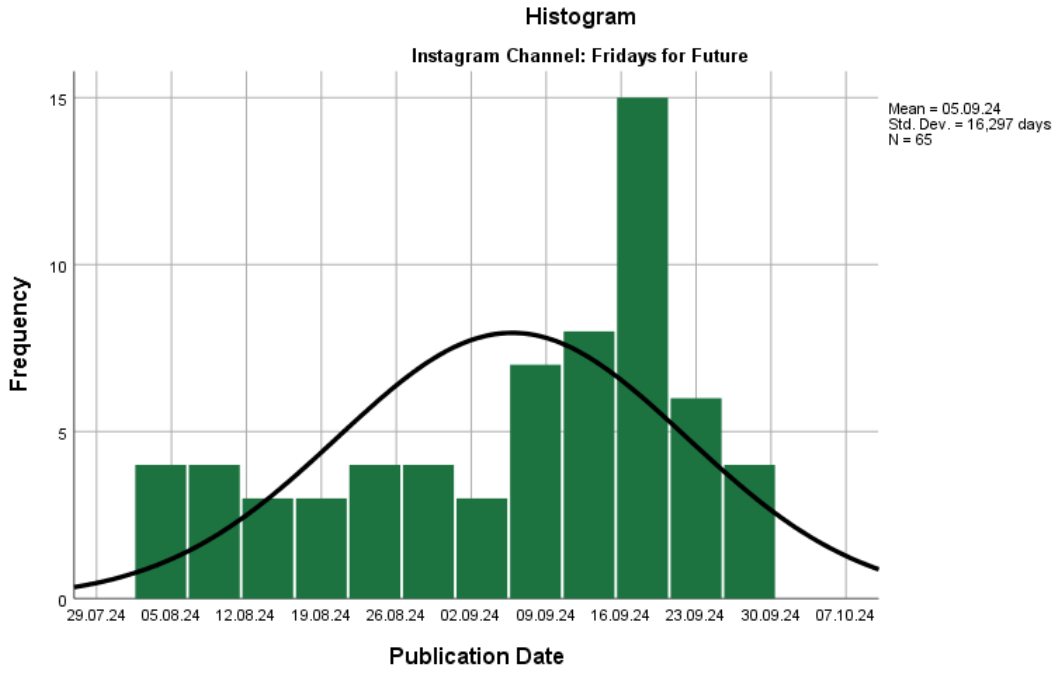
O'Neill (2021) and have been adapted to suit the specific research focus of this work. This allowed for a thorough and appropriate examination of the collected data.

Descriptive Analysis of Formal Characteristics

The sample for the analysis of the communication strategies consisted of a total of 156 Instagram posts. Of this total, 65 came from Fridays for Future, and 91 from the Last Generation Instagram account. An analysis of the publication dates reveals concentrations in certain time periods (see Figure 5). For FFF, a significant number of posts were published around the middle of September 2024, particularly between 9 and 24 September. There is a noticeable spike around 18 September, which is the day with the highest number of posts published. Apart from this spike, the posts were shared in a more steady and consistent manner with a new post published every one to three days, occasionally two posts on the same day.

Figure 5

Distribution of Instagram Posts by Fridays for Future Over Time

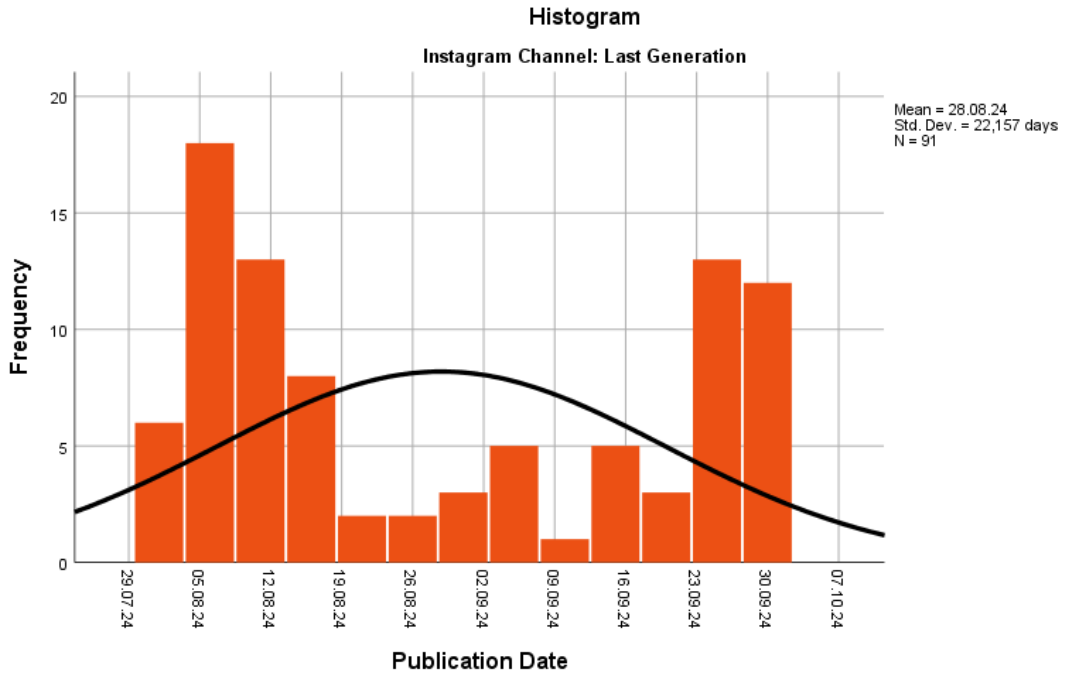


For Last Generation, a concentration of posts was observed in the first half of August, particularly on 8 August 2024, and around 28 September 2024 (see Figure 6). LG typically shared posts daily and often also multiple posts per day, except during the

period from 17 August to 22 September. During this time, occasional breaks between posts were noticeable and the overall number of posts decreased.

Figure 6

Distribution of Instagram Posts by Last Generation Over Time



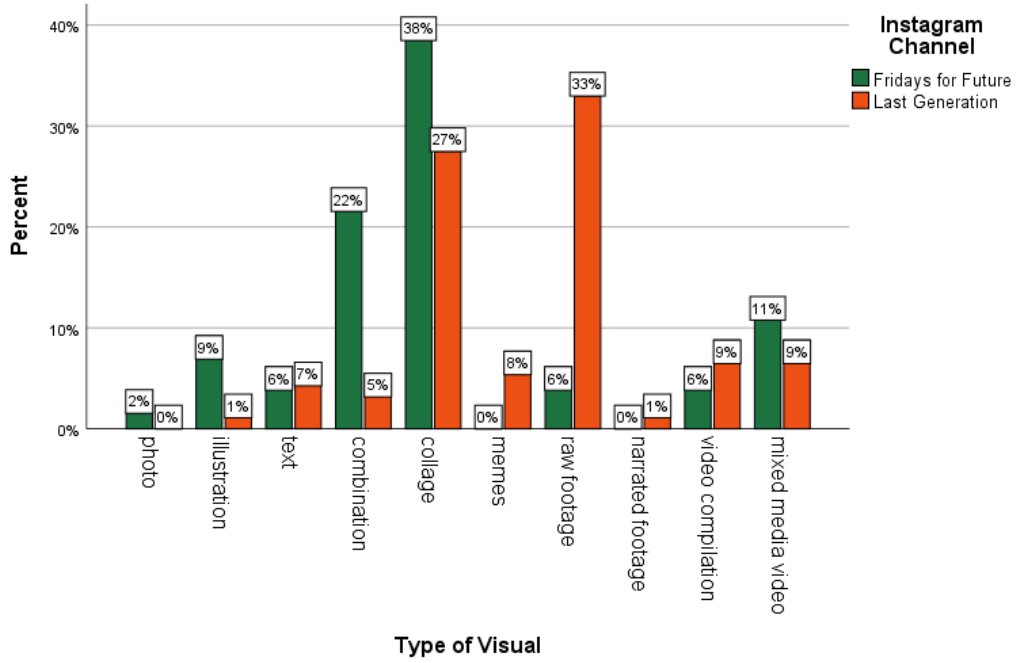
The average number of likes the posts received corresponds to the groups' number of followers, with FFF receiving more likes (2844) than LG (779). However, a closer look reveals that LG had a higher engagement rate. Assuming that only followers liked the posts, 0.5% of FFF's followers (545,000) engaged with its content on average, compared to 1% for LG (74,000 followers). This is further reinforced by the average number of comments: LG surpasses FFF in this regard with an average of 68 comments per post, while FFF received only 60, despite a much higher follower count. Hashtags were not commonly used by either group; they were found in only 5 posts from FFF and 9 posts from LG. For LG, most of the hashtags referenced the campaign 'Oil Kills' (#oilkills), which was central to its airport protests and involved collaboration with other groups on a global scale.

The analysis of the type of visual reveals some interesting differences between the groups, which are statistically supported, $\chi 2$ (9, N = 156), $p < .001$, ϕc .475. While FFF focused on images (50 out of 65), LG mainly published videos (47 out of 91). Regarding images, both groups primarily published collages (38% for FFF and 27% for LG out of all posts), meaning the posts consisted of multiple images (and

sometimes videos). However, FFF also often shared photos with text overlays (22%) or sometimes illustrations (9%). Memes were only present in LG posts (8%) and used to convey the group's motivations, the urgency to take action, messages directed at the government, or reactions to confrontations with the police in a humorous manner. Interestingly, some variables were completely absent for both groups: 'infographic', 'animated graphics', 'text-based video', 'slideshow video' and 'screen recording'.

Figure 7

Type of Visual Used by Fridays for Future and Last Generation

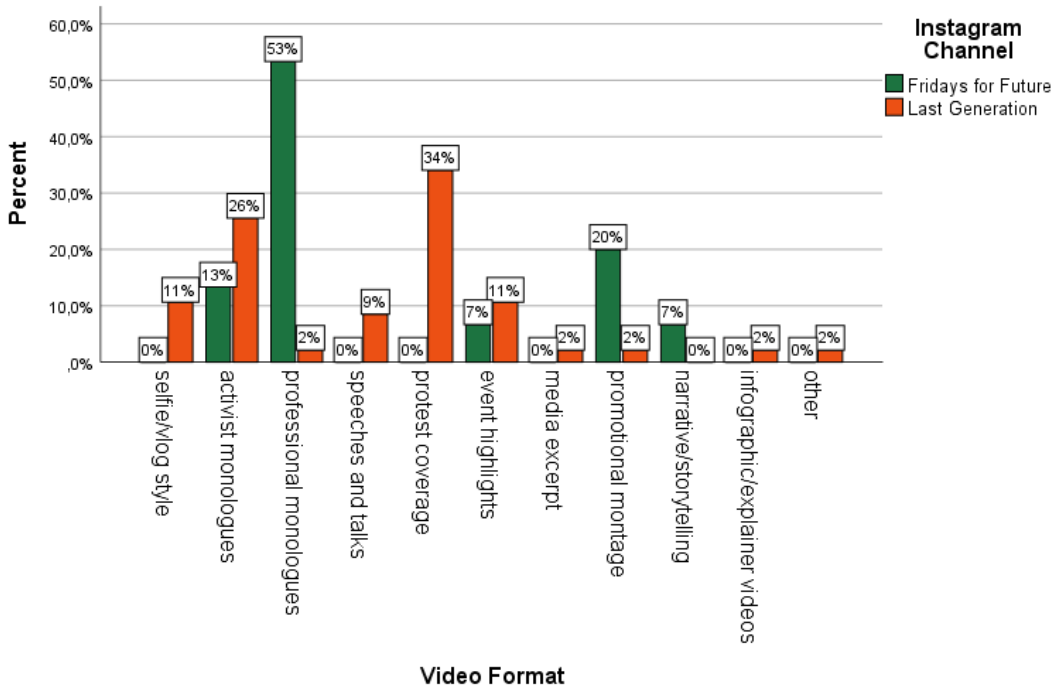


Videos, on the other hand, were mostly raw footage in the case of LG, with minimal editing (33% of all LG posts) - typically no or just a few cuts or an added animation at the end. For LG, the type of visual was closely correlated with the number of comments a post received, $F(8, 82) = 4.179$, $p < .001$, $\eta^2 = .29$. In particular the raw footage received significantly more comments than other used visuals. Around a third of LG's videos fell under the category 'protest coverage' (34%) where activists film themselves during a protest, sharing their motivations and demands in either a more personal or public manner on behalf of the group (see Figure 8). The second most common video format by LG was 'activist monologues' (26%), where activists record themselves with their phones and speak in a more pre-planned manner and often for the whole group, though the production quality remains low. In addition to these, also

selfie videos with a more personal tone (11%), event highlights (11%) and speeches (9%) were shared.

Figure 8

Video Format Used by Fridays for Future and Last Generation



Videos published by FFF typically featured mixed media, incorporating various elements such as animations and illustrations, followed by video compilations and raw footage. Half of them were ‘professional monologues’ (53%) which are similar to ‘activist monologues’ but with a higher production quality, often filmed with a real camera and focus depth. Other videos were promotional montage (20%), activist monologues (13%), event highlights (7%) and narrated stories (7%). The high production quality is especially evident in the storytelling video (post ID: 29), which features animations of a post-apocalyptic world, professional video quality, and music strategically placed to evoke emotions. In contrast to LG, coverage from protests was not posted at all during the examined time period. These differences in the video format between the two movements are supported by a strong statistical significance with large effect size, $\chi 2$ (10, N = 62), $p < .001$, ϕc .795.

The news outlet analysis included a total sample of 306 articles. From this amount, 91 articles were taken from *FAZ*, with 30 covering Fridays for Future and 61 Last Generation. *Zeit Online* published 76 articles, including 24 on FFF and 52 on LG. The largest contribution came from *taz* with 139 articles, comprising 52 on FFF and

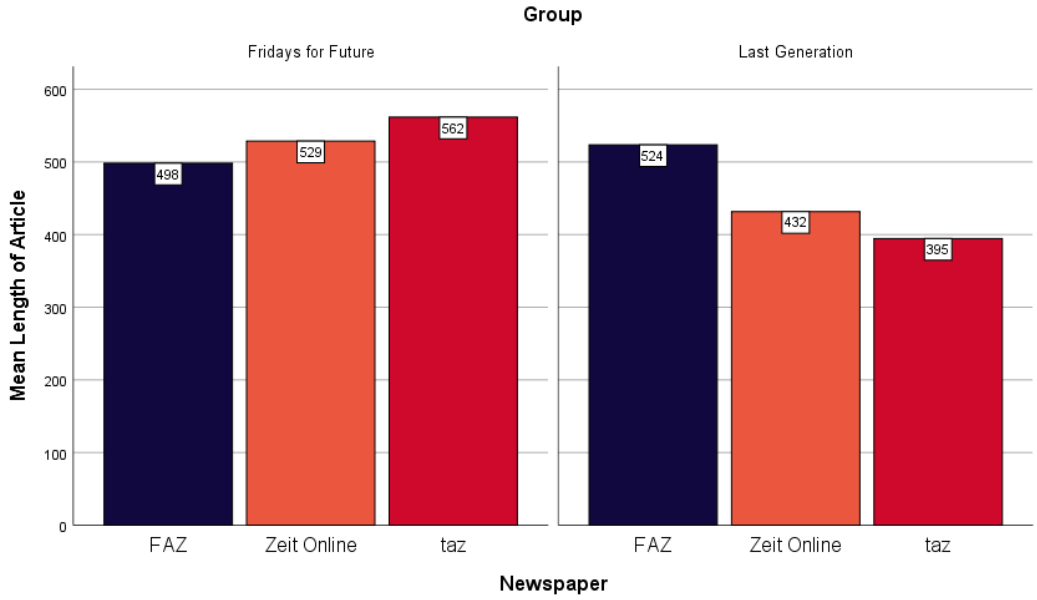
87 on LG. Across all three news outlets, it is evident that LG received more coverage and thus more attention compared to FFF, with around twice as many articles.

An analysis of the temporal distribution of FFF articles reveals a notable concentration in the first half of the data collection period (see Appendix, Figures 1-3). Most of the articles were published in September, October, and November 2023, indicating a period of increased media interest for the group during these months. *Zeit Online* and *taz* also reported more frequently in February 2024. Interestingly, while *FAZ* reported in the most consistent manner, the number of articles published on *Zeit Online* and *taz* drastically decreased in Spring 2024. *Zeit Online*, for instance, only published one article each in March and May, leaving out April and June completely. A similar temporal distribution can be found for LG (see Appendix, Figures 4-6). Most articles were published in September 2023 (*FAZ*: 16, *Zeit Online*: 18, *taz*: 26) and it appears that the number of articles declined towards the end of the data collection period. However, among the three news outlets, *taz* covered the group the most regularly throughout the examined time period.

Examining the average article length reveals some interesting patterns (see Figure 9). On FFF, *FAZ* published the shortest articles, while *taz* produced the longest. In contrast, when covering LG, it was the other way round: *FAZ* had the longest articles, while *taz* went with shorter pieces.

Figure 9

Mean Article Length by News Outlet: Fridays for Future vs Last Generation



Among *FAZ* articles, those with the highest word count predominantly focused on the legal assessment of LG's actions. In the case of *taz*, particularly opinion pieces were short with approximately half the length compared to those published on *FAZ* or *Zeit Online*. In contrast, commentaries about both activist groups featured on *Zeit Online* tended to be significantly longer than their counterparts in *FAZ* or *taz*. The mean length is also affected by the number of opinion pieces, commentaries and columns published in the news outlets, which tend to be longer than news articles (see Appendix, Figure 7). The distribution was very similar for all three news outlets and both climate activist groups: most of the articles were news articles (FFF: 63-73%, LG: 69-79%), then commentaries (FFF:17-21%, LG: 6-17%), opinion pieces (FFF: 10-13%, LG: 9-15%) and finally columns (FFF: 0-4%, LG: 0-5%). A significant contrast was evident on *Zeit Online*. For FFF, the news outlet published the fewest news articles but the highest number of commentaries compared to the other outlets. Conversely, its coverage of LG shows the opposite pattern: more news articles and fewer commentaries. Furthermore, an analysis of author attribution reveals that across all three news outlets articles covering LG mentioned the author less frequently than those about FFF.

RQ1: Which strategies do FFF and LG use to convey their message and motivate action on Instagram?

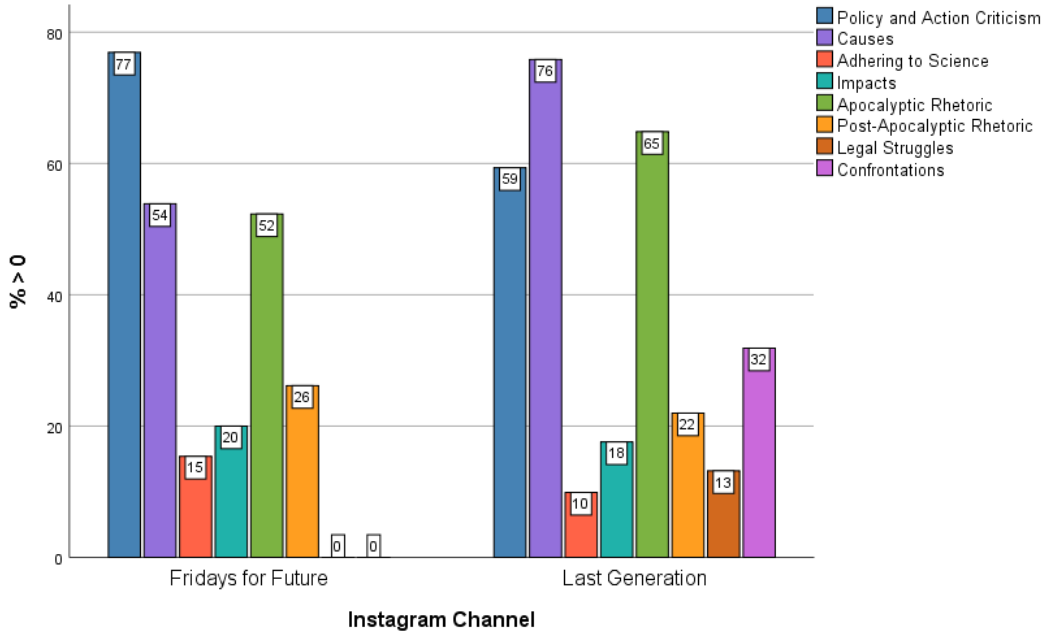
Interestingly, the findings reveal a similar use of emotions by FFF and LG (see Appendix, Figure 8). In particular anger played a significant role for both groups and characterised half of their posts (FFF: 51%, LG: 56%). Other negative emotions, such as fear or sadness, seemed to be less relevant for their mobilisation strategies. Interestingly, the ANOVA revealed that posts from LG that contained fear and anger received more comments than posts with other emotions, $F(5, 85) = 2.624$, $p < .05$, $\eta^2 = .13$. The second most prominent emotion was hope (FFF: 29%, LG: 21%), followed by joy as the third most common (FFF: 17%, LG: 10%).

When it comes to the identification of the problem, findings reveal a similar distribution for both groups (see Figure 10). They share the same top three, though with different proportions: policy and action criticism (FFF: 77%, LG: 59%), climate change causes (FFF: 54%, LG: 76%) and apocalyptic rhetoric (FFF: 52%, LG: 65%). Statistically significant differences could only be found for the first two variables. Yet, these variables could be found in at least every second post from FFF and LG, with policy and action criticism being even more frequent for FFF, and causes for LG. Post-

apocalyptic rhetoric was present in around every fourth post from both groups and climate change impacts in every fifth.

Figure 10

Diagnostic Variables Used by Fridays for Future and Last Generation



Based on qualitative observations, FFF focused on local impacts, such as floods and rising temperatures in Germany, while also addressing the broader effects within Europe, highlighting the more distant consequences of climate change. In contrast, LG focused on the global impacts of the climate crisis, particularly the death of millions of people worldwide and its devastating effects on poorer countries. While LG primarily emphasised these global consequences, it also occasionally mentioned local impacts, such as the record-breaking heat experienced during this summer in 2024. Both groups adhered to science in only every seventh to tenth post (FFF: 15%, LG: 10%).

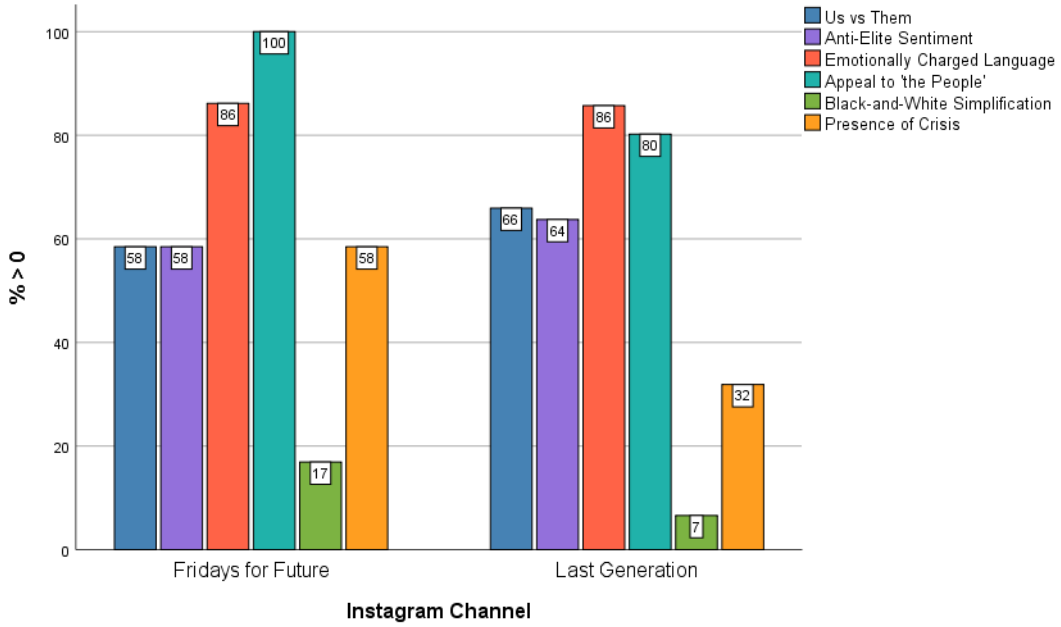
Furthermore, both groups shared their specific demands to propose a solution to the identified problem in every second post with a very similar distribution (FFF: 46%, LG: 48%). Interestingly, both groups completely omitted any mentioning of action plans nor emphasised the beauty of nature or showed attempts to foster a connection to it (see Appendix, Figure 9).

A surprising finding emerges from the use of populist strategies (see Figure 11). Both FFF and LG display a similar distribution, with no statistically significant

differences in the first three variables: ‘us vs them’, ‘anti-elite sentiment’ and ‘emotionally charged language’.

Figure 11

Populist Rhetoric Used by Fridays for Future and Last Generation



In particular ‘emotionally charged language’ was often used and appeared in 86% of the posts of both groups. ‘Us vs them’ and ‘anti-elite sentiment’, on the other hand, were present in roughly half (FFF) to two-thirds (LG) of the posts. These two variables examined whether the conflict between two parties was emphasised, portraying them as two opposing forces, and if the elite was explicitly criticised. When these variables were present, those posts received significantly more comments for both FFF ($F(1, 63) = 8.696$, $p < .01$, $\eta^2 = .12$; $F(1, 63) = 8.442$, $p < .01$, $\eta^2 = .12$) and LG ($F(1, 89) = 8.756$, $p < .01$, $\eta^2 = .09$; $F(1, 89) = 4.970$, $p < .05$, $\eta^2 = .05$). In the case of LG, it was qualitatively observed that the group also often criticised the ‘system’, for example here: ‘We will not simply accept this death-dealing system, we will protest’ (post ID: 81) or ‘Stand with us against this system of avoidance’ (post ID: 114). The most prominent populist strategy employed by FFF was the ‘appeal to the people’, which appeared in all of its posts and also played a significant role in LG’s communication strategy. This variable was coded when a strong sense of community or shared values were emphasised, as well as the need to protect a common future. Examples include calls for movement or protest participation, direct appeals to the collective, highlighting large protest participant numbers, and portraying the group as

a representative of the people's interests. Furthermore, the presence of a crisis was highlighted in many posts. The least common variable was 'black-and-white simplification'.

RQ2: How do FFF and LG frame their messages visually and textually?

Both groups emphasised visually showcasing activists, protests, banners, their logo, and the causes of climate change in their posts (see Appendix, Figure 10). FFF, for instance, featured photos and illustrations of oil platforms and open-pit coal mines, while LG highlighted airports and planes, largely due to its on-site protests. Interestingly, politicians, scientists/experts, and celebrities were either entirely or nearly absent on both Instagram accounts. Variables related to climate change impacts and solutions appeared in only few posts. Even their most prominent activists, like Luisa Neubauer or Carla Hinrichs, were featured only rarely. When Neubauer was featured, however, the post received significantly more likes, $F(1, 63) = 32.155$, $p < .001$, $\eta^2 = .34$, and comments, $F(1, 63) = 38.548$, $p < .001$, $\eta^2 = .38$, than other posts, supported by a large effect size. Similar findings emerge for LG posts showing Hinrichs, which received more comments than those that did not, $F(1, 89) = 7.923$, $p < .01$, $\eta^2 = .08$.

Nevertheless, the visual analysis also reveals some differences. Statistically supported discrepancies with small-to-medium effect sizes in posts shared by LG include a higher presence of activists (FFF: 51%, LG: 77%), citizens (FFF: 2%, LG: 12%), police (FFF: 0%, LG: 26%) and protest (FFF: 32%, LG: 51%). Qualitative observations reveal that citizens and police were predominantly featured in protest coverage, highlighting the disruptive and persistent nature of LG's protests in everyday settings. FFF, in contrast, presented more often nature (FFF: 22%, LG: 3%), infographics (FFF: 12%, LG: 1%), climate change impacts (FFF: 8%, LG: 0%), and climate change solutions (FFF: 9%, LG: 1%). The nature variable was found in particular in the context of protests against planned oil drilling near a German island. FFF activists Luisa Neubauer (3 posts) and Carla Reemtsma (5) were exclusively found in FFF posts and LG activists Lina Johnsen (2) and Carla Hinrichs (7) in LG posts. However, it was also noted that other activists appeared frequently. In particular on LG's account, multiple activists were repeatedly given a platform to voice their perspectives, even to a similar extent as more well-known figures.

Additional qualitative observations demonstrate some differences in the groups' visual branding choices. FFF primarily used green in its posts, aligning with its logo (see Figure 12). This colour is often associated with nature and environment, as well as positive feelings such as hope. Occasionally, the movement also used red in text overlays to emphasise urgent or negative issues, and in some cases, entire posts were dominated by red. For instance, one post discussed the impacts of climate change, highlighting how this summer was the hottest on record (post ID: 28). Another post featured Olaf Scholz photoshopped in front of an oil platform with a red sky, creating a threatening and negative portrayal of him (post ID: 15, see below). The design of the posts appears to be carefully chosen and comes across as very cohesive overall. Both images and videos that were shared are usually characterised by high quality.

Figure 12

Exemplary Screenshot of Instagram Posts Published by @fridaysforfuture.de

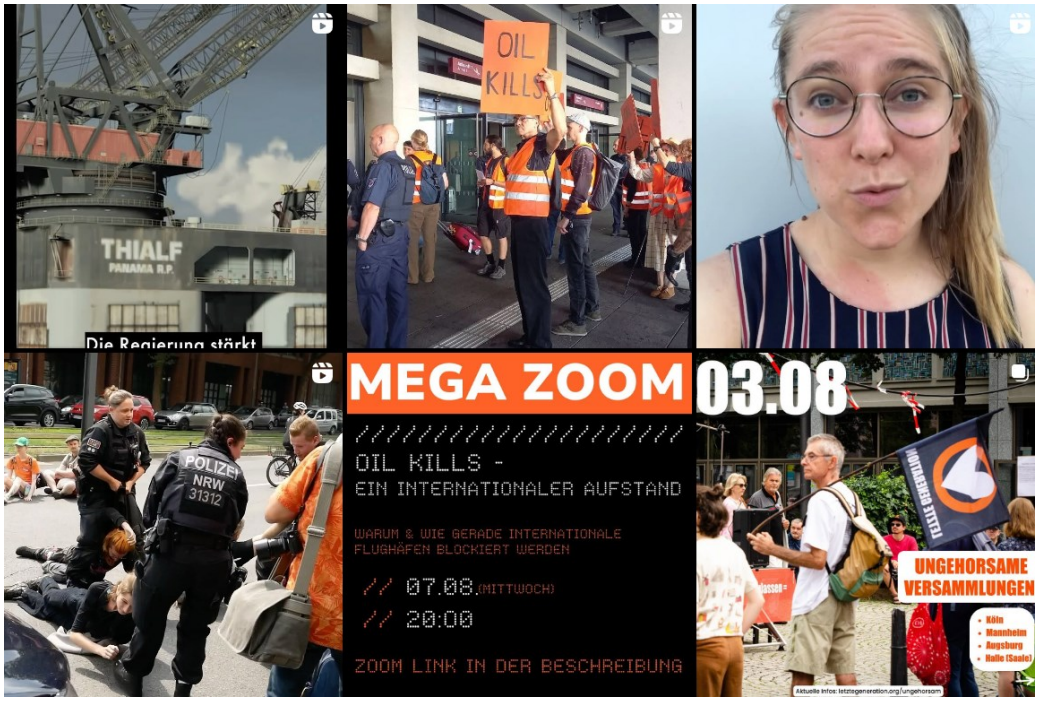
Note. From top left to bottom right: Post ID (first one was not coded), 17, 16, 15, 14, 13. From 'Posts [Instagram profile]', by Fridays for Future Deutschland [@fridaysforfuture.de], n.d., (https://www.instagram.com/fridaysforfuture.de).

LG's posts, in contrast, were dominated by orange. This colour not only aligns with its logo but also evokes feelings of caution and urgency, especially when paired with the group's signature high-visibility vests which are also orange. However, due to the abundance of protest footage and activist monologues, the use of colour was not

always as prominent as the green used in FFF's posts (see Figure 13). The design is less consistent and appears less cohesive compared to that of FFF.

Figure 13

Exemplary Screenshot of Instagram Posts Published by @letztegeneration



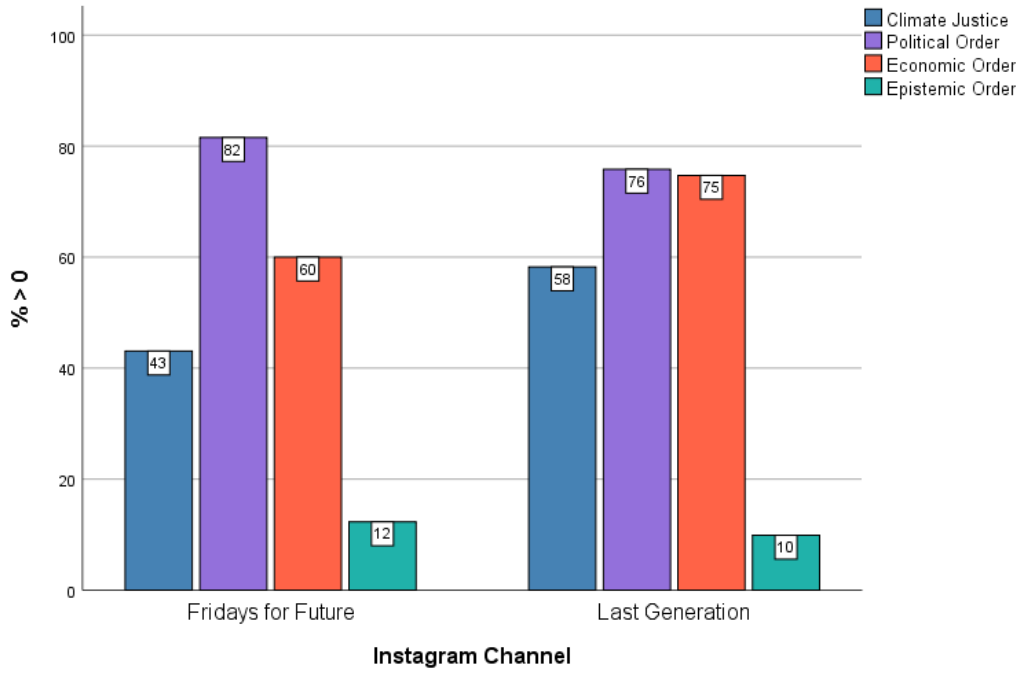
Note. Top left: Post ID 74, top right: Post ID 73, bottom middle: Post ID 72. From 'Posts [Instagram profile]', by Letzte Generation, [letztegeneration], n.d., (https://www.instagram.com/letztegeneration).

An analysis of the master frames climate justice, political order, economic order and epistemic order does not reveal any statistically significant differences, meaning that they appeared in a similar distribution for both groups (see Figure 14). In particular the political order played a significant role for both groups in terms of who holds responsibility for addressing the climate crisis (FFF: 82%, LG: 76%). The government and politicians were often criticised for their inaction. This was also strongly connected to the economic order and specifically the topic 'fossil fuels'. Both FFF and LG called on political decision-makers to take responsibility and commit to phasing out oil, gas and coal by 2030. The fossil fuel industry was often portrayed as the villain, interested only in profits and placing them above human lives. While the political order was the most-mentioned topic in FFF's posts, LG placed equal emphasis on political and economic issues (75-76%). Climate justice, the need to ensure a good quality of life for future generations, and a just transition for all - not only the wealthy - was highlighted in 43% of FFF's posts and 58% of LG's posts. Epistemic order, and thus

the adherence to scientific facts and knowledge, was mentioned in only 10-12% of the posts.

Figure 14

Master Frames Used by Fridays for Future and Last Generation



FFF identified specific environmental and political problems, particularly focusing on the expansion of fossil fuel infrastructure, such as the gas drilling project near Borkum. The group highlighted the negative impact of these projects on people, climate, and nature. Additionally, it pointed out the hypocrisy in Germany's climate politics, as the country pushes other nations to reduce emissions while at the same time approving new gas projects, which may undermine its credibility on the global stage. The posts frequently pointed out the failure of politicians like Olaf Scholz, Habeck, and Baerbock, accusing them of not taking appropriate action to fight climate change, despite the already visible consequences, such as record global temperatures, forest fires, and catastrophic floods. FFF addressed them directly and accused them of deliberately ignoring the Climate Change Act and failing to take necessary action on it. The group also criticised weak climate policies, which threaten climate goals and environmental protection efforts and pose the risk of significant financial penalties in the future. Already now, public transportation is being underfunded and there is a lack of funding for climate protection. Particularly, the rise of the right-wing AfD party was seen as a threat to both democracy and the commitment to achieving climate goals.

Another key issue raised was the prioritisation of corporate profits over environmental and human well-being. The group accused the fossil fuel industry of pushing for gas and oil projects for profit, at the expense of the planet and public health.

FFF offered clear solutions, including stopping the planned gas drilling at Borkum and opposing new fossil fuel projects, and ultimately phasing out fossil fuels until 2030. It suggested that preventing government approvals for these projects would help achieve climate goals and protect the environment. Furthermore, emissions need to be reduced, in particular from the building and transportation sectors. There were frequent calls for political leaders to take immediate and decisive action, such as increasing investment in renewable energy, and removing subsidies for fossil fuels. Furthermore, the group asked them to communicate in an open and honest manner and listen to science. Activists also advocated for deeper systemic reforms, such as abolishing the debt brake to free up funds for climate protection measures and improving public transportation infrastructure. In order to achieve these goals, protests and petitions are seen as ways to increase pressure on the government and keep the topic at the top of the political agenda. FFF takes direct action, even going as far as suing the government to force it to implement stricter climate goals. Additionally, the group urged its supporters to vote democratically in elections to help reduce the influence of right-wing parties.

In order to motivate people to support its goals, the movement included strong emotional appeals in its posts, often stating the negative consequences of inaction, with the aim to evoke anger. Well-produced videos, accompanied by dramatic or enthusiastic background music, effectively enhanced the emotional impact. Phrases like ‘gas or future’ and ‘we must act now’ were used to mobilise people by creating a sense of urgency and individual as well as collective responsibility. The viewers were addressed directly, with an emphasis on personal relevance, to highlight how these issues affect them as well. There was a consistent emphasis on taking action, whether through signing petitions, attending webinars, or participating in climate strikes. FFF activists facilitated movement support by providing their supporters with free mobilisation material and detailed information about protests and other actions so they can easily get involved. The group frequently encouraged people to join its cause and take part in demonstrations, ‘fighting’ together and using collective pressure to force political change. Posts often included hopeful messages that highlighted the possibility of success through collective action. It mentioned previous success stories, such as achieving political attention for climate issues, to inspire further participation.

When delving deeper into the diagnostic framing of LG's posts, it becomes evident that the group consistently identified fossil fuels as a major cause of the climate crisis, with a strong emphasis on airports and oil projects as symbols of destruction ('oil kills'). The system was often framed as one that supports the fossil fuel industry and prioritises corporate profits over human lives, willingly worsening the climate crisis. There was recurring criticism of the government for approving fossil fuel projects, failing to protect the environment, and using repressive measures against climate activists (e.g., house searches) to criminalise and silence them. Politicians were often blamed for being complicit in the climate crisis by supporting fossil fuel interests and the police for enforcing those interests. The posts highlighted economic inequality, pointing out that the wealthiest 1% are responsible for the majority of CO_2 emissions, while ordinary people bear the costs. According to the group, specifically rich individuals, oil company executives, and bankers are exploiting the world. There were also mentions of the unfair use of public funds to subsidise harmful industries, such as the airport Kassel-Calden.

One of the proposed key solutions was getting governments to sign the Fossil Fuel Treaty, which would phase out oil, gas, and coal by 2030. Activists encouraged both governments and individuals to sign the treaty. There was a strong emphasis on participating in protests and civil disobedience to pressure the government into action. Furthermore, supporters could donate money to support the group without participating in risky disruptive actions. The protests often took place at airports, where activists protested either inside the building or block runways, and demanded to reduce air traffic in a socially equitable manner. The airport Kassel-Calden, for example, should be completely shut down due to its waste of taxpayer money. The group also proposed the introduction of a wealth tax to hold rich people more accountable, while cutting fossil fuel subsidies and relocating that money to places where it is needed more, such as universities. The posts called for a fair transition that leaves no one behind to ensure that the shift away from fossil fuels benefits everyone, not just wealthy people. This should be enforced through policies that protect the rights of marginalised people.

Many posts used emotional and apocalyptic language to convey the urgency of the situation, often framing it as a life-or-death struggle. Phrases like 'I am terrified of the climate disaster' and 'we refuse to die for fossil fuels' were used to mobilise support. The group frequently asked people to join protests, sign petitions, attend Zoom meetings, and donate to support its actions. Protest participation, and especially

civil disobedience, was framed as a way to show solidarity and make an impact. The posts appealed to the collective by emphasising the importance of unity in fighting the climate crisis and standing strong against the corrupt system. Phrases like ‘our tax money’ and ‘our future’ emphasised personal relevance, making it a matter that affects everyone. LG’s solidarity and empathy with each activist, collaboration with other groups, organised protest camps, and shared moments of singing together all helped foster a strong sense of community. LG stressed that the contribution of every single person matters and that everyone has a responsibility to act now to prevent further destruction. In some posts, the group explained its motivations and underlined that its protests are within the framework of democracy, with the goal of fostering greater public understanding. Some posts highlighted successes such as the widespread support for the Fossil Fuel Treaty from various actors and states, historic achievements of civil disobedience, or court decisions in its favour, to give people the feeling that the cause is supported by many and hope that change is possible if they continue to fight. There were frequent calls to show solidarity with activists facing repression, such as house searches or imprisonment. The posts often emphasised that these repressive actions are attempts by the government to silence protest and maintain the status quo, and that standing with the activists is crucial.

RQ3: What are the key differences in the communication strategies between FFF and LG?

While Fridays for Future and Last Generation share some similarities in terms of their communication strategies, notable differences also emerge. LG, for instance, predominantly posted collectively (85%) with its local branches (e.g., LG Kassel) or collaborating with other activist organisations, such as activist networks or legal support groups for activists. This finding reveals a statistical significance with a large effect size, $\chi 2$ (1, N = 156), $p < .001$, ϕc .673. Other groups that do not belong to LG, such as Extinction Rebellion, were tagged in 11% of its posts. FFF, in contrast, posted mainly independently (83%). When the group posted collectively, however, those posts received significantly more likes, $F(1, 63) = 5.750$, $p < .05$, $\eta^2 = .08$, and comments, $F(1, 63) = 9.785$, $p < .01$, $\eta^2 = .13$, compared to its individual posts. Furthermore, while this thesis cannot statistically support it, the emotions in FFF posts appeared to be slightly more positive and convey more hope and joy. It calls for further investigation in order to support or disprove this noted pattern.

The analysis of diagnostic variables shows a generally similar distribution, but also some notable differences emerge. The variables 'legal struggles' and 'confrontations' reflect LG's disruptive nature and were entirely absent from FFF's content. Confrontations, such as with the police, were mentioned in every third post, $\chi 2$ (1, N = 156), $p < .001$, ϕc .404, while legal struggles appeared in every eight post, $\chi 2$ (1, N = 156), $p < .01$, ϕc .244. Posts addressing confrontations received significantly more likes than those that did not, $F(1, 89) = 8.537$, $p < .01$, $\eta^2 = .09$. Furthermore, LG mentioned climate change causes more often, especially in the context of its protests and demands, $\chi 2$ (1, N = 156), $p < .01$, ϕc .230. FFF, in contrast, criticised climate policy and political inaction more frequently than LG, although the statistical significance of this difference is not very strong, $\chi 2$ (1, N = 156), $p < .05$, ϕc .184. Qualitative observations reveal further nuances: while there is no statistically significant difference between the use of apocalyptic and post-apocalyptic rhetoric by each group, it was noted that LG made use of much stronger rhetoric than FFF. In posts shared by LG, phrases were found such as 'we must phase out fossil fuels by 2030, because that is what is necessary for humanity to survive' (post ID 66), 'it's about nothing less than our existence on this planet' (post ID: 84), 'it's about our very existence' (post ID: 105), 'we refuse to die for fossil fuels' and 'protest or death' (post ID: 107). FFF, instead, used weaker (post-)apocalyptic rhetoric such as: 'our future is at stake' (post ID: 20), 'the climate crisis is no longer a distant threat - it's happening here and now' (post ID: 28), 'protest like there is a tomorrow' (post ID: 32), 'The flooding […] reveals the brutal consequences of the climate crisis: 19 dead, livelihoods destroyed. Such disasters are further fuelled by political inaction' (post ID: 44).

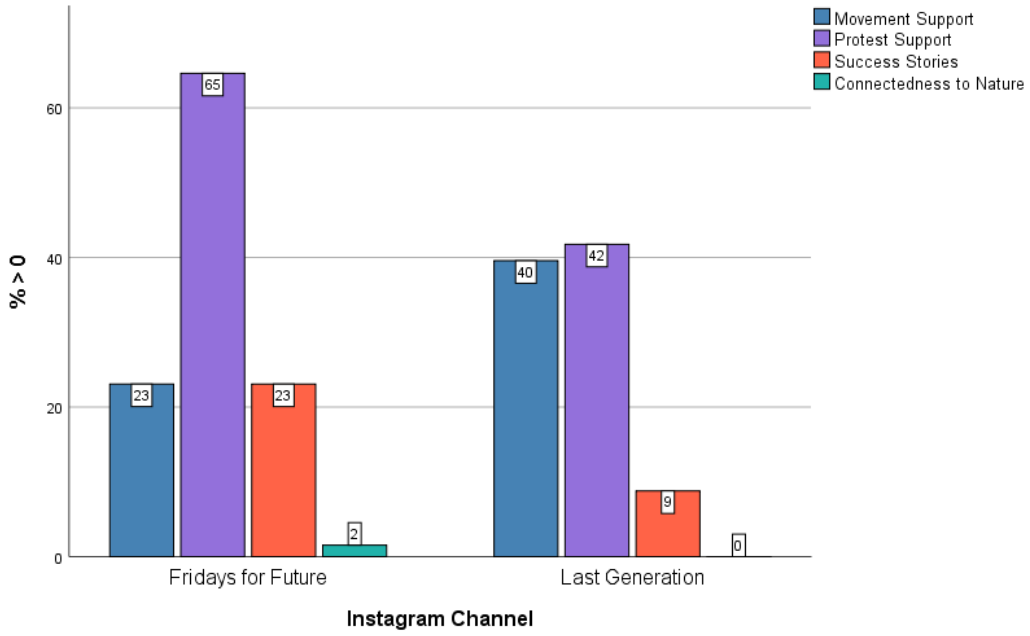
While FFF and LG both placed equal emphasis on communicating their specific demands, differences emerge when it comes to general demands, such as calling for 'more climate protection'. Interestingly, FFF shared its general demands in 48% of posts, matching the frequency of its specific demands. In contrast, LG addressed general demands in only 12% of its posts, $\chi 2$ (1, N = 156), $p < .001$, ϕc .382. Similarly, FFF mentioned potential solutions to climate change, like renewable energy, in 14% of its posts, whereas LG did so in only 3%, $\chi 2$ (1, N = 156), $p < .05$, ϕc .195.

An analysis of their direct mobilisation strategies reveals further differences between the two movements with small-to-medium effect sizes (see Figure 15). FFF called on viewers to participate in its protests in 65% of its posts, compared to only 42% for LG, $\chi 2$ (1, N = 156), $p < .01$, ϕc .225. Conversely, LG encouraged viewers to support the movement in 40% of its posts, whereas FFF did so in just 23,

$\chi 2$ (1, N = 156), p < .05, ϕc .173. LG often asked for donations or to 'join the resistance' and included full internet links in its captions, such as to specific pages on the group's website, zoom meetings, or news articles. These links can only be accessed by copying and pasting them into a browser or by visiting its profile to find them linked in the bio, if available. FFF, on the other hand, asked its supporters to sign open letters to ministers or petitions, order free mobilisation material to promote the upcoming global climate strike, vote for democratic parties, or join a lawsuit and sue the government together.

Figure 15

Motivational Variables Used by Fridays for Future and Last Generation



Additionally, FFF shared success stories and what it already accomplished as a group more often than LG, $\chi 2$ (1, N = 156), p < .05, ϕc .199. This may include a large number of participants at protests or mentioning achievements through its activism, such as phasing out coal and setting new climate goals.

While FFF and LG share some similarities in their use of populist rhetoric, some interesting disparities emerged during the analysis. Unexpectedly, FFF appeared to make more use of these strategies. Statistically significant differences were found in particular for the variables 'appeal to the people', $\chi 2$ (1, N = 156), p < .001, ϕc .305, 'black-and-white simplification', $\chi 2$ (1, N = 156), p < .05, ϕc .163, and 'presence of crisis', $\chi 2$ (1, N = 156), p < .001, ϕc .265. The ANOVA revealed a significant increase in terms of the number of comments FFF posts received when they included black-

and-white simplification, $F(1, 63) = 9.624$, $p < .01$, $\eta^2 = .13$, as well as presence of crisis, $F(1, 63) = 4.653$, $p < .05$, $\eta^2 = .07$. Nevertheless, it is crucial to note some qualitative differences here. The variable 'appeal to the people' was present in all of FFF's posts and 80% of LG's posts. However, only LG activists appeared to portray themselves as heroes fighting for the common good, with statements like 'we save lives through our protest' (post ID: 101) and 'over and over, we are silenced as messengers of bad news' (post ID: 117). Additionally, the analysis focuses only on explicit black-and-white solutions, framing issues as a 'this or that' decision. However, qualitative observations revealed other forms of simplification that the variable did not examine, such as the notion that all wealthy people are bad and that the government only acts to destroy livelihoods, particularly in LG posts: 'The climate crisis is escalating before our eyes, and it's the government's fault' (post ID: 137).

RQ4: How are FFF and LG activists, their actions and concerns portrayed in German news outlets?

Articles about Fridays for Future primarily focused on the group as a whole, rather than individual activists or the broader climate movement (see Appendix, Figure 11). Nevertheless, 10% to 29% of FFF coverage also spotlighted individual activists. Reporting about Last Generation, in contrast, was very much about the group itself, whereas little to no attention has been paid to the individual members. The chi-square test revealed a statistical significance of these differences between FFF and LG with a small-to-medium effect size, $\chi 2$ (2, N = 306), $p < .01$, ϕc .203.

Interestingly, articles about FFF covered a range of different topics, and did not solely focus on climate (see Figure 16). A significant number of articles, nearly equalling those focused on climate issues, emerged in the context of the Israeli-Palestinian conflict. Additionally, protests regarding public transport were covered frequently by *taz*. In contrast, articles about LG focused on climate issues in at least 98% of cases. A strong significance with a large effect size was found for this variable, $\chi 2$ (4, N = 306), $p < .001$, ϕc .654.

When taking a closer look at the thematic focus of the articles, three main themes emerge for each climate activist group (see Figure 17 and 18). While coverage of both FFF and LG predominantly related to their protests, as well as the subsequent reactions and controversies, there were significant differences for the third theme, $\chi 2$ (6, N = 306), $p < .001$, ϕc .405. A big portion of FFF articles delved into the group's

internal dynamics while LG coverage frequently highlighted the legal consequences of the group's actions.

Figure 16

Context of Articles About Fridays for Future in FAZ, Zeit Online and taz

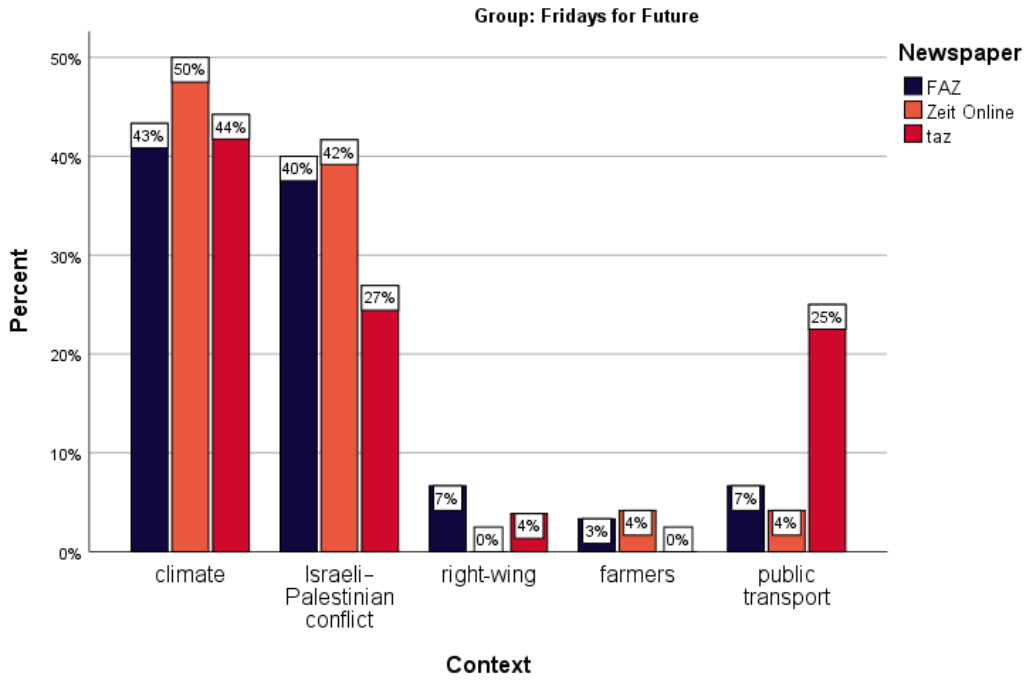


Figure 17

Thematic Focus of Articles About Fridays for Future in FAZ, Zeit Online and taz

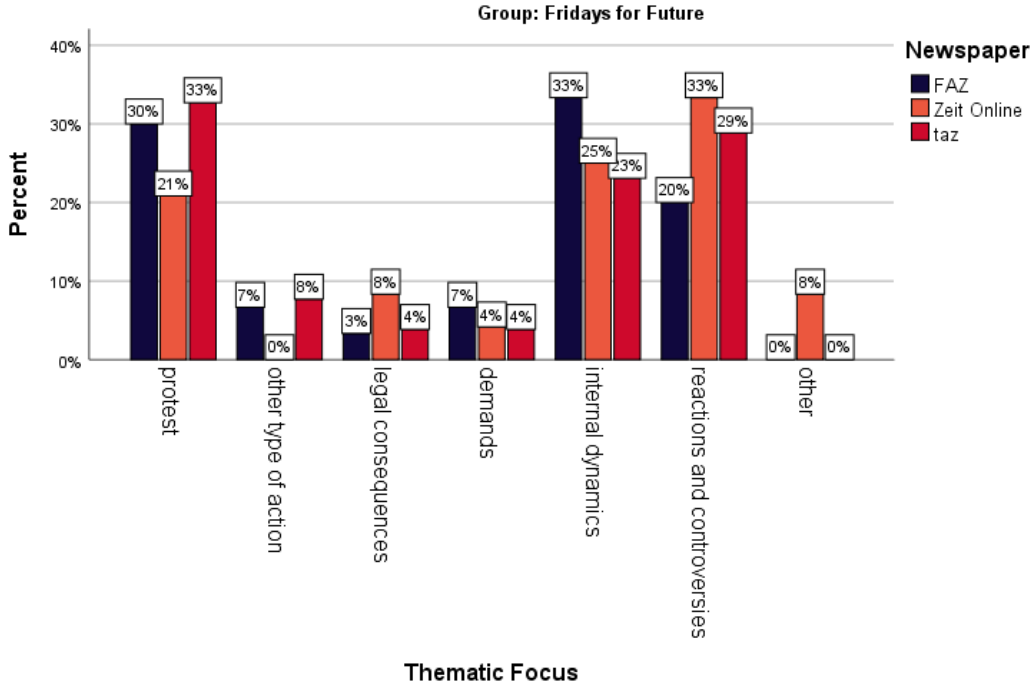
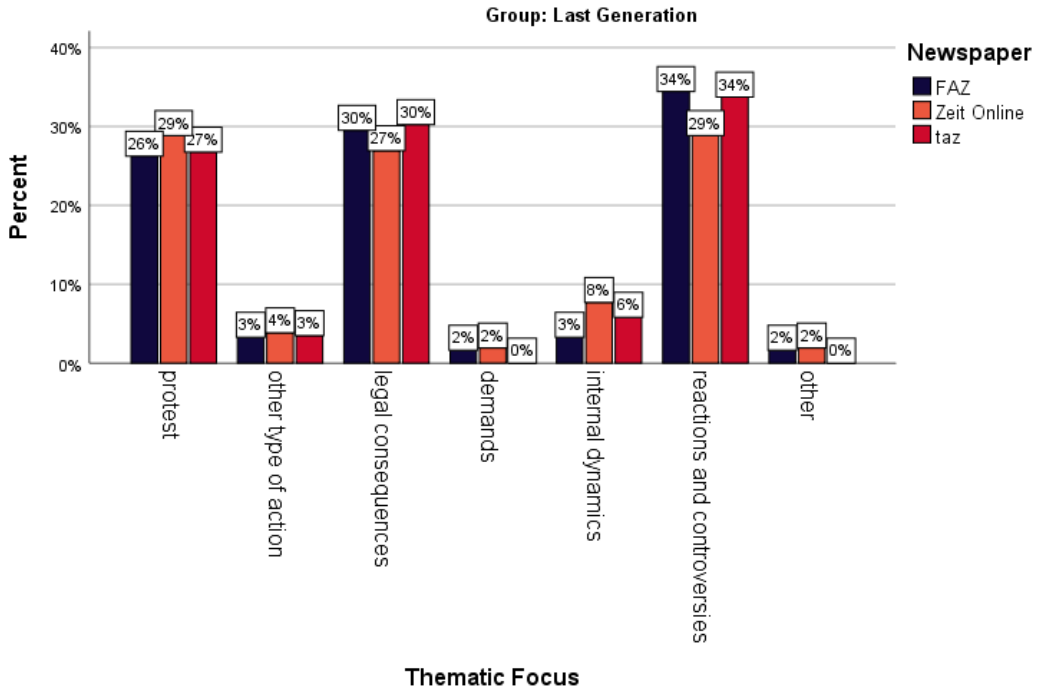


Figure 18

Thematic Focus of Articles About Last Generation in FAZ, Zeit Online and taz



The protests they carried out differ significantly in several aspects. FFF frequently collaborated with other groups or trade unions (56-88%), while LG mostly protested alone (83-88%), $\chi 2$ (1, N = 84), $p < .001$, ϕc .614. In terms of legality, FFF's protests were almost always within legal boundaries (89-100%), whereas LG's actions were predominantly illegal (88-96%), $\chi 2$ (1, N = 84), $p < .001$, ϕc .876. Both groups primarily targeted the government with their protests, but this was more evident in FFF's case. For LG, the target was often not explicitly mentioned, $\chi 2$ (3, N = 84), $p < .05$, ϕc .357. Moreover, the selected news outlets employed distinct framing approaches when reporting on the protests. FFF's actions were predominantly covered using thematic framing (78-88%), focusing on broader issues. In contrast, LG's protests were mostly reported using episodic framing (74-88%), concentrating on the specific events rather than underlying causes, $\chi 2$ (1, N = 84), $p < .001$, ϕc .610.

Taking a look at the frames used to portray the activists, further differences emerge, $\chi 2$ (5, N = 306), $p < .001$, ϕc .502. FFF was predominantly portrayed through the neutral frame, as well as those emphasising 'intergenerational justice' and 'activism without activists'. Followingly, the activists were either described as empowered and courageous young people fighting for a liveable future, or as ignorant activists lacking expertise or realistic understanding of the issues they advocate for. In

contrast, LG was primarily presented through neutral frames and the 'threat' frame, portraying the group as a challenge to the socio-political order and emphasising its disturbance. A slight presence of other frames was found as well, such as 'intergenerational justice' or 'David vs Goliath', depending on the news outlet. 'David vs Goliath', in contrast to 'intergenerational justice', highlights the battle against powerful forces and presents the implementation of climate actions as challenging.

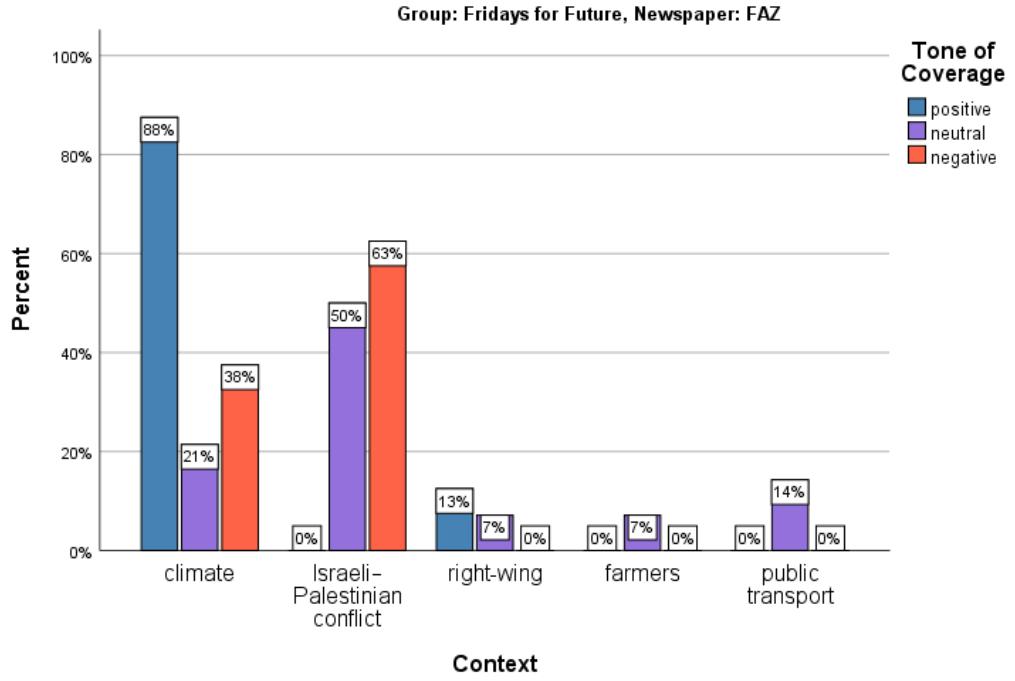
Delving deeper into who gets to speak within the articles, it becomes clear that both groups dominated the discourse. Nevertheless, while FFF got to speak, either as a collective or through individual activists, in at least 75% of the articles, LG was afforded this opportunity in only 57% of its articles at minimum, $\chi 2$ (1, N = 306), $p < .001$, ϕc .227. Furthermore, the police or executive shared a large proportion of speech in articles covering LG, often also due to declarations regarding the number of protesters, arrests, or other official information, $\chi 2$ (1, N = 306), $p < .001$, ϕc .267. This group is followed by politicians and experts. In contrast to FFF, also the judiciary was frequently mentioned due to court decisions resulting from LG's illegal actions, $\chi 2$ (1, N = 306), $p < .001$, ϕc .253. Politicians were also featured prominently in articles reporting on FFF, representing a significant voice in the discourse, followed by activists belonging to other groups, $\chi 2$ (1, N = 306), $p < .001$, ϕc .381.

Some evidence was found for tonal differences in the coverage between FFF and LG. The reporting on LG involved a more negative tone compared to FFF. However, it is important to note that this difference is characterised by a small effect size, $\chi 2$ (2, N = 306), $p < .01$, ϕc .178. This suggests a subtle but statistically significant variation in media portrayal between the two climate activist groups. Nevertheless, all news outlets presented FFF in a more negative light in the context of the Israeli-Palestinian conflict. FFF International faced severe criticism for its stance against Israel, while FFF Germany attempted to reduce the backlash by distancing itself from the international organisation's position. Some praised the German branch for its prompt statement, while critics argued that the distancing was not sufficient or clear enough. These divergent perspectives on the same issue resulted in a significant number of articles focusing on 'internal dynamics' due to conflicts between the international and German branch. Nevertheless, FFF Germany were usually portrayed more favourably than FFF International. Based on qualitative observations during the coding process, Greta Thunberg was often presented as too radical and ignorant in the context of the Middle East conflict. According to journalists, her statements and public declarations were driving the group into a crisis and damaging FFF's reputation. Luisa

Neubauer, in contrast, was portrayed as a clever, eloquent and responsible leader of FFF Germany. While climate issues were covered in a more positive and neutral manner, articles addressing the group's position on the Israeli-Palestinian conflict and its protests tended to be either neutral or negative in tone. This becomes evident when examining the proportion of negative articles that emerged in the context on this conflict (see Figure 19).

Figure 19

Tone of Coverage by Context in Articles About Fridays for Future in FAZ



For *FAZ*, 63% of its negative articles focused on this issue, while for *Zeit Online* the figure rises to 67%. It becomes the most visible when examining *taz* articles, where 100% of its negative pieces stem from the group's stance on the Middle East conflict. This finding is supported by a strong significance with a large effect, $\chi 2$ (8, N = 106), $p < .001$, ϕc .449. An analysis of the temporal distribution of article tones reveals that negative articles about FFF began to emerge in mid-October 2023, coinciding with the escalation of the Israel-Palestinian conflict (see Appendix, Figure 12).

This observation translates to the use of frames as well, $\chi 2$ (20, N = 106), $p < .001$, ϕc .499. Negative frames, particularly the 'activism without activists' frame, were mainly utilised in the context of the Israeli-Palestinian conflict across all news outlets. In contrast, when addressing climate-related topics or its protests on public

transport, FFF was frequently presented through the 'intergenerational justice' frame. Based on this, it seems that the group's standpoints on climate issues are largely recognised, showing a broad acceptance of its knowledge and credibility in this area. In sharp contrast, its views on the Middle East conflict are often undermined or delegitimised, presenting the group as ignorant and naive.

Further differences become visible taking a look at the presentation of the groups' general goals with its actions and its specific demands. While for FFF, the demands were stated more often than its general goals (such as raising attention, creating pressure), for LG it was the other way round. When FFF's demands were mentioned, they were often presented without specific framing, or were framed as achievable, rarely also as unrealistic. In contrast, LG's demands, when mentioned, frequently lacked any specific framing. However, when framing was present, it tended to portray them as unrealistic, $\chi 2$ (4, N = 306), $p < .001$, ϕc .315.

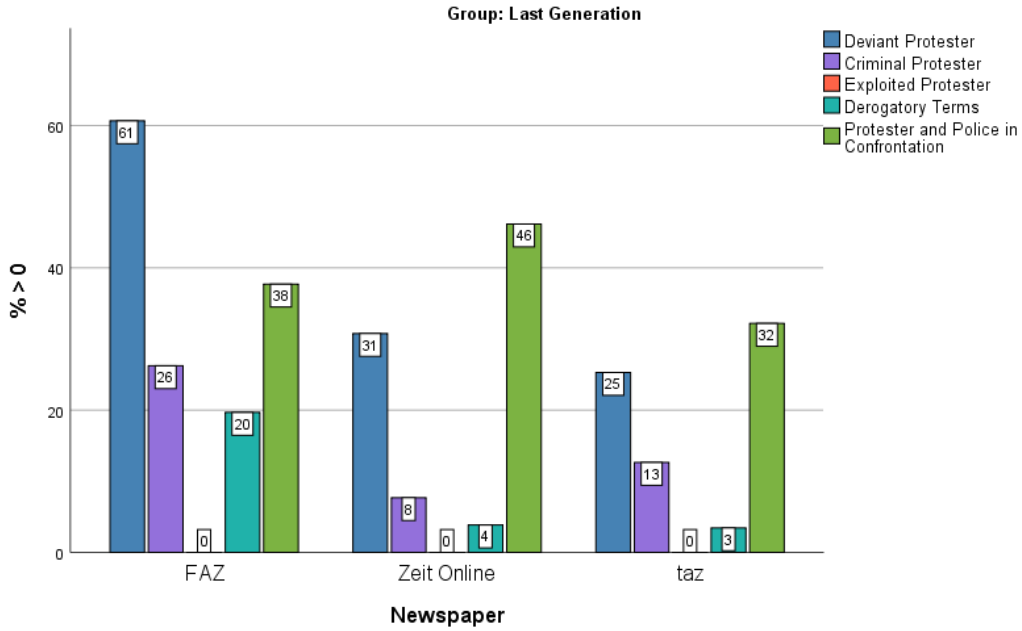
Similar tendencies can be observed for the public opinion. Although public opinion was often not explicitly mentioned for either group, there are notable differences when it is addressed, $\chi 2$ (3, N = 306), $p < .001$, ϕc .301. FFF's public perception was portrayed as both non-supportive (17%) or divided (13-20%), whereas LG's was mainly presented as non-supportive (28-46%). In contrast to FFF, there were no instances where public opinion towards LG was depicted as supportive, underscoring the varying levels of acceptance and controversy surrounding these two activist groups.

The journalists contribute to the controversy surrounding LG by adhering to the protest paradigm in their reporting (see Figure 20). While FFF was occasionally portrayed as a deviant protester (10-29%), particularly in the context of the Israeli-Palestinian conflict by comparing the activists for instance with antisemitic conspiracy theorists, LG was depicted in this manner much more frequently (25-60%), $\chi 2$ (1, N = 306), $p < .001$, ϕc .233. The authors' bias becomes even more apparent, seeing that LG activists were often characterised as criminals (8-25%), $\chi 2$ (1, N = 306), $p < .001$, ϕc .226, and their confrontations with the police were frequently mentioned (32-46%), $\chi 2$ (1, N = 306), $p < .001$, ϕc .355.

The analysis of the presence of climate change within the articles reveals significant disparities between the groups. In particular, the variables 'solutions', 'success stories', 'uncertainty', and 'economic costs of climate actions' were mentioned more frequently in coverage about FFF and all revealed a high significance with a medium effect size.

Figure 20

Protest Paradigm in Articles About Last Generation in FAZ, Zeit Online and taz



Solutions were often mentioned as part of the group's demands, such as phasing out fossil fuels until 2030. Other demands could be considered as part of 'economic costs of climate actions' such as the so-called 'Klimageld' (climate money) as a social compensation for increasing CO_2 pricing as well as investments in public transport which were part of the group's core messages. FFF's success stories often highlighted its organisational achievements rather than specific climate goals met, emphasising how it influenced elections, initiated successful lawsuits, and contributed to Germany's adoption of a robust climate protection law. Uncertainty, both in FFF and LG articles, was mainly highlighted in discussions on political commitments as well as explicit statements that the government fails to adhere to established climate guidelines. Conversely, LG coverage involved a higher prevalence of apocalyptic rhetoric, $\chi 2$ (1, N = 306), $p < .05$, ϕc .132. According to qualitative observations, this rhetoric frequently emerged in the citations of climate activists when their demands and motivations were presented. Interestingly, none of the articles emphasised climate change adaptation strategies. Instead, they focused entirely on prevention efforts, reflecting a belief that it is still possible to mitigate climate change rather than merely dealing with its consequences. Furthermore, climate change was seen as a serious issue in most cases. One article published on *FAZ* (ID: 22/76), however, downplayed the severity of climate change, and the author instead emphasised technological progress and capitalism as solutions. He advocated for techno-optimism, the belief that

technological innovations will ultimately resolve any present climate change issues, and thereby trivialised the urgency and necessity of climate activism. This perspective suggests that society simply has to wait for the right technological solutions to be invented and implemented.

Regarding visual representation, the article images accompanying coverage of FFF showed a significant higher frequency of FFF activists themselves, other activists, mass protests, speeches, and visual depictions of climate change solutions with a small-to-medium effect size. In contrast, articles about LG included more often street blockades, gluing to the street, and the police or other security personnel with strong significance and a medium effect size. The police or security personnel was present in every third to second image (36-46%). Variables that were almost or fully absent for both groups included: 'criminal tools', 'politicians', 'climate change impacts', and 'climate change causes'. When FFF or LG activists were visible in photographs, both groups were predominantly portrayed individually. However, a subtle distinction emerged in images featuring multiple activists. FFF activists were more frequently depicted in large crowds exceeding 10 people, while LG activists were more often shown in smaller groups of 4-9 protesters, $\chi 2$ (3, N = 159), $p < .05$, ϕc .228. FFF activists were predominantly depicted as female young adults, while images of LG activists showcased a more diverse age range, ranging from young adults to older individuals. Additionally, the gender representation in LG images appears to be more balanced, with a more equal distribution of male and female activists visible. These findings are supported by a strong statistical significance with a medium-to-large effect size. Surprisingly, FFF activists were primarily captured with complacent or serious expressions, while LG activists' faces were often not visible or displayed neutral expressions. This finding demonstrates a strong statistical significance with a large effect size, $\chi 2$ (8, N = 159), $p < .001$, ϕc .497. Photos of LG activists were more frequently captured from mid- or long-range perspectives. FFF activists, however, were predominantly photographed from mid-range or even close-up angles, $\chi 2$ (3, N = 159), $p < .001$, ϕc .348. The controversy surrounding LG is further intensified by the media's consistent use of contested frames in its visual portrayal which was observed in nearly half of the articles analysed, $\chi 2$ (1, N = 242), $p < .001$, ϕc .484. Visual content was frequently categorised as contested due to the presence of police in photographs, a common occurrence in the context of street blockades, $\chi 2$ (1, N = 151), $p < .001$, ϕc .692. These contested images often depicted various scenarios: police responding to the actions carried out by the activists, workers

cleaning paint leftovers from protests at official request, cars waiting in front of activists sitting on streets or court scenes. The police interactions captured in these photographs varied greatly, from mere presence to direct engagement with activists. These direct interactions included attempts to remove protesters, whether by detaching glued hands or physically carrying them away, and ranged from peaceful to more forceful interventions. For comparison, contested frames were found in only 4-14% of the articles about FFF. Distancing frames, on the contrary, which focus on portraying climate change as a distant, non-human issue, were completely absent in all articles.

RQ5: How does their portrayal differ between conservative, liberal and left-oriented news outlets?

Beyond climate-related issues, coverage of FFF across the three news outlets frequently contextualised the movement within the Israeli-Palestinian conflict. Nevertheless, *taz* devoted less attention to this topic compared to *FAZ* and *Zeit Online* and instead placed greater emphasis on FFF's collaboration with the trade union ver.di, with which the group advocated for improved working conditions for bus drivers. These protests, in contrast, appeared only very rarely in coverage by *FAZ* or *Zeit Online*. While all three news outlets adopted a negative tone towards FFF in the context of the Middle East conflict, the qualitative analysis reveals that *taz* appeared to provide more comprehensive explanations of FFF's viewpoints on this issue. In article 185, for instance, a scientist explained FFF's solidarity with Palestine by highlighting the country as an underdog and representing the Global South, while the activists themselves and Israel are part of the Global North which is responsible for the climate crisis. This citation provides a more nuanced understanding of their motivations.

The analysis identified significant differences for the use of frames between the news outlets with medium-to-large effect sizes (see Figure 21). In general, *taz* employed positive frames for both FFF and LG more frequently than the other outlets. Notably, *taz* portrayed FFF through the 'intergenerational justice' frame almost twice as often (62%) as *FAZ* or *Zeit Online*, emphasising the movement's self-agency and right to shape its future. Surprisingly, *Zeit Online* portrayed FFF in the most negative light, applying the 'activism without activists' frame in 33% of its articles and thus disparaging the activists and suggesting they lack the necessary expertise or credibility to effectively address the issues they advocate for.

Figure 21

Frames in Articles About Fridays for Future in FAZ, Zeit Online and taz

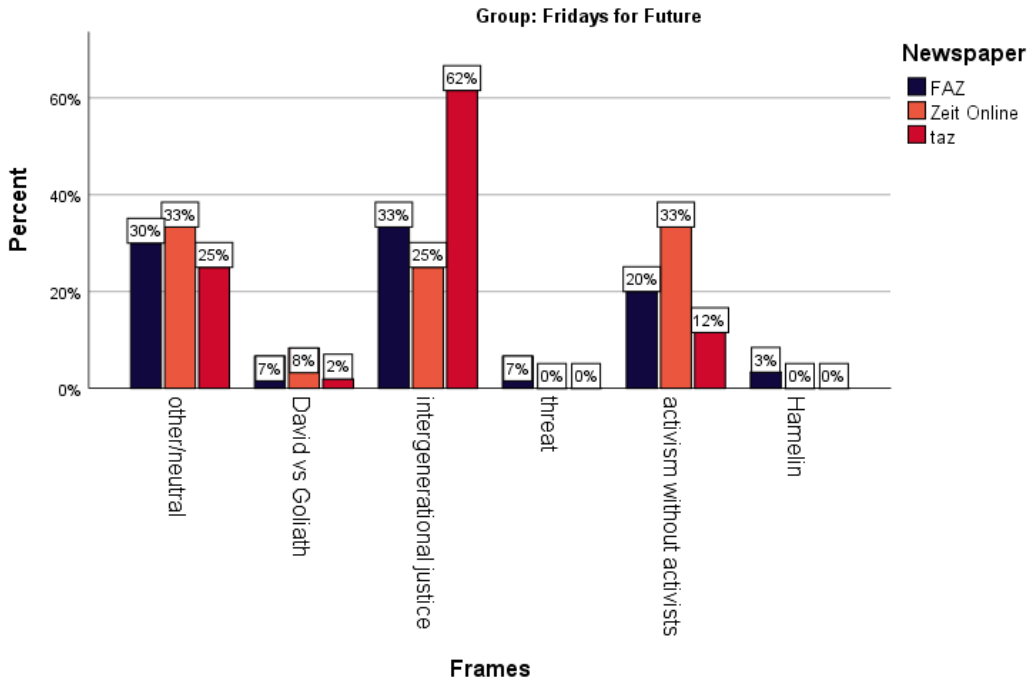
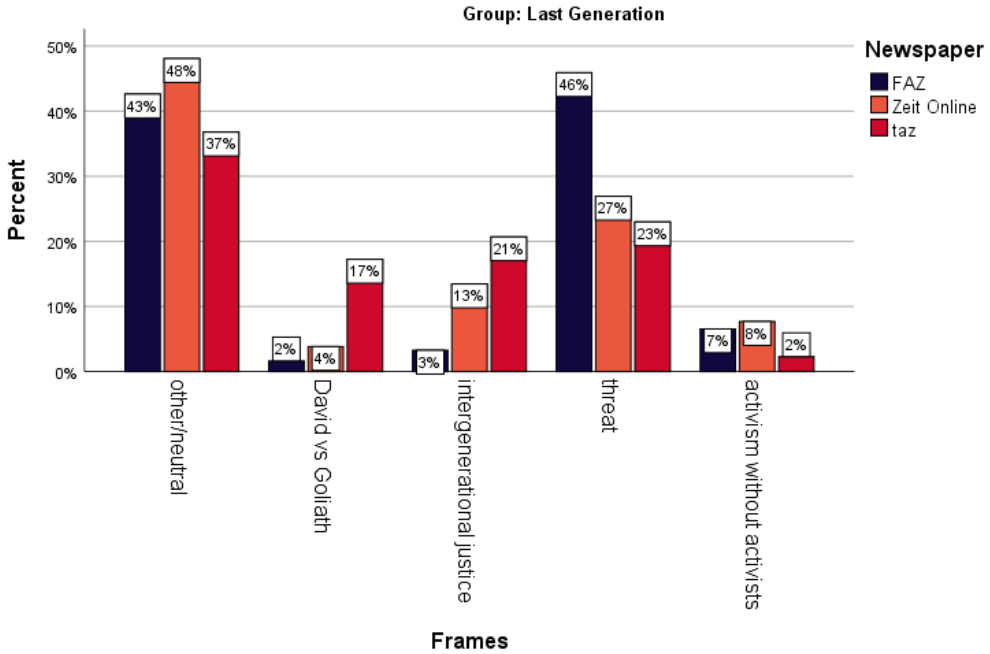


Figure 22

Frames in Articles About Last Generation in FAZ, Zeit Online and taz



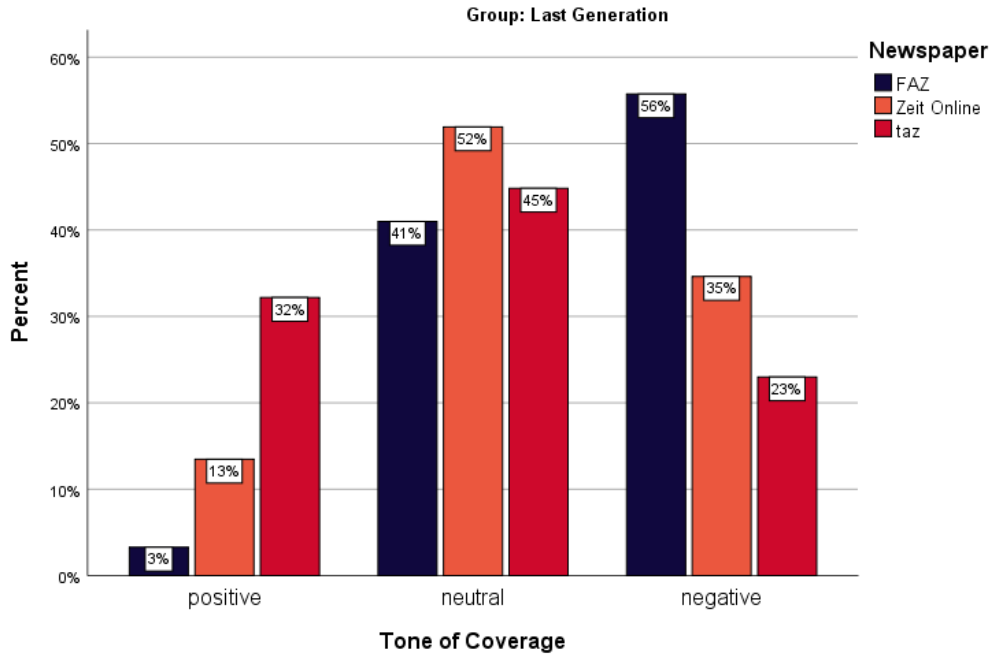
Regarding LG, while *taz* primarily used neutral framing (37%), it also applied the 'David vs Goliath' (17%) and 'intergenerational justice' (21%) frames to this group (see Figure 22). This framing choice presents LG's activism as a struggle against

larger, more powerful entities and highlights the generational stakes of its actions. Although *taz* also employed the 'threat' frame for LG, and even slightly more often than the just-mentioned positive frames (23%), it did so less frequently than *FAZ* or *Zeit Online.* Moreover, the combined use of positive frames in taz outweighed the use of the 'threat' frame. Instead, *FAZ* employed the 'threat' frame in nearly half of its articles about LG, marking a significant shift from the framing choices of other outlets.

The tonal analysis supports the negative portrayal of FFF by *Zeit Online*, while *taz* reported most favourably. However, it is important to note that while this trend is observable, the finding lacks statistical significance. Nevertheless, significant differences between the news outlets could be found in the case of LG with a medium effect size, $\chi 2$ (4, N = 200), $p < .001$, ϕc .268. *taz* emerged as the most positive in its portrayal of LG, with 32% of its articles framing the group favourably (see Figure 23).

Figure 23

Tone of Coverage in Articles About Last Generation in FAZ, Zeit Online and taz



Based on qualitative observations, *taz* seemed to include more supporting voices, for instance the judge showing understanding for the activists' motivations, a police officer supporting the group, or experts underlining the urgency of the climate crisis and thus legitimising LG's protests. Furthermore, some authors defended the protests and while they acknowledged that these demonstrations may be annoying, they argued that they fall within the acceptable limits of democratic expression and should not be

considered dangerous. This stands in strong contrast to *FAZ*' coverage, where only 3% of articles presented LG in a positive light. Instead, *FAZ* demonstrated a strong tendency towards negative framing, with a majority (56%) of its articles about LG adopting a critical tone. This polarisation in coverage between *taz* and *FAZ* highlights the significant variation in media representation of climate activist groups. *Zeit Online*, as expected, maintained the most neutral stance.

Interestingly, when excluding subjective articles, 21 out of 44 news articles by *FAZ* can be still considered negative towards LG due to the author's focus on critical voices, confrontations with the police, court decisions and monetary damages of the group's actions, as well as the author's use of specific terms and phrases (e.g., climate gluer, smearing, defiling, paint attack). This becomes evident in article 66 which is about LG activists facing charges for a paint attack on Brandenburg Gate. While the news article covered a potentially controversial topic, which in itself should not necessarily be coded as having a negative tone, the author used words like 'paint attack', 'smearing', and included detailed descriptions of conflicts with the police.

Despite the journalistic principle of objectivity and balanced reporting for news articles, *FAZ* authors failed to provide adequate space for LG members or their supporters to express their perspectives, resulting in a subtle, yet imbalanced representation of the group's activities and motivations with only 23 neutral articles out of 44. While *Zeit Online* also demonstrated a negative bias in its reporting on LG (13 negative, 2 positive, 26 neutral news articles), *taz* reported in a more balanced way (13 negative, 11 positive, 36 neutral news articles). While opinion pieces, commentaries, and columns naturally display a stronger negativity due to the explicit inclusion of the authors' personal views, news articles can also convey a more subtle form of negativity that may influence the readers' perception.

A similar pattern emerged when examining the coverage of each group's general goals and demands. *taz* mentioned FFF's specific demands more frequently compared to the other two news outlets, with *Zeit Online* citing the group least often, $\chi 2$ (2, N = 106), $p < .05$, ϕc .277. As for LG, *FAZ* referred the most often to LG's general goals of its protests compared to *taz* and *Zeit Online*, $\chi 2$ (2, N = 200), $p < .05$, ϕc .155. Nevertheless, the statistical analysis reveals no significant difference among the news outlets regarding their coverage of FFF's general goals or LG's specific demands.

The critical stance adopted by *FAZ* is further evident in its presentation of public opinion towards LG. Although not statistically significant, the observed pattern

aligns with the results of the tonal analysis, reinforcing *FAZ*' overall negative framing. Specifically, *FAZ* more frequently highlighted public disapproval of LG's activities, emphasising societal dislike towards the group. In contrast, *taz* mentioned public dislike least often and tended to portray public opinion as divided, even though the differences are only very small here.

FAZ authors characterised LG activists more frequently as deviant and criminal protesters, and employed derogatory terms more often compared to *Zeit Online* and *taz*. These findings are highly statistically significant and demonstrate a medium effect size, underscoring a notable difference in the portrayal of LG across these publications. In particular terms such as 'Klimakleber' (climate gluers) were often used by *FAZ* authors, reducing the activists to a single, controversial action and distracting from their core messages. Furthermore, despite its widespread usage in the German media landscape, the term carries a subtle yet negative connotation that often goes unnoticed and may influence public perception. However, also stronger words than that were used, explicitly calling them 'offenders', defiling buildings and valuable landmarks. While *FAZ* maintained a notably more negative stance towards LG, the analysis also reveals that it employed derogatory terms most frequently when discussing FFF, supported however by less strong evidence due to very few total occurrences, $\chi 2$ (2, N = 106), $p < .05$, ϕc .252. *taz*, again, demonstrated the least overall use of negative portrayals towards both FFF and LG.

Although climate change variables were covered similarly across the news outlets, *taz* set itself apart by highlighting solutions more often in its reports on FFF compared to *Zeit Online* and *FAZ*, as well as climate change mitigation. Interestingly, out of all three news outlets, *taz* reported about the immediate and local impacts of climate change the least often in articles on FFF, $\chi 2$ (2, N = 106), $p < .05$, ϕc .276.

Another significant difference becomes apparent when looking at the visual content accompanying the articles. Surprisingly, *taz*' article images showed FFF activists considerably less often than *FAZ* or *Zeit Online*, $\chi 2$ (2, N = 91), $p < .001$, ϕc .415. This finding raises questions due to *taz*' overall more positive textual coverage of FFF.

Qualitative observations reveal further distinctions in the coverage of the three news outlets. On 24 September 2023, LG tried to disrupt a marathon in Berlin. This event was covered by *FAZ*, *Zeit Online* and *taz* (article IDs: 43, 130, 241) with different narratives due to varying focuses and language choices. *FAZ*, for instance, adopted a neutral to slightly negative tone towards the activists. It emphasised the prevention of

the protest, framing the activists as potential disturber to the event. Interestingly, the article also devoted a large part to the successes of the marathon runners, which could put the protest of the activists into perspective. *Zeit Online* took a similar approach, but distinguished itself by stating the general goals of group's protests while omitting coverage of the marathon runners' achievements. *taz* offered the most sympathetic portrayal of the activists and included the content of the banner carried by the protesters - a detail omitted in the other two articles. Moreover, *taz* reported that the group's prior announcement to disrupt the marathon had sparked debates both for and against this form of protest, implying that opinions are divided rather than fully negative.

On 23 November 2023, *FAZ* published an article (article ID 58) detailing the accusation against LG as a criminal organisation. This piece presented the court decisions and reasoning in extensive detail, which in themselves already carry a strong negative tone. *taz*, instead, chose to not publish a straightforward news article on this topic but a commentary (article ID 263). While the *taz* piece also outlined the court's decision and motivations shortly, it went further by incorporating the author's personal perspective. He argued that the court's decision is too harsh, particularly because it criminalises not just the activists but also their supporters, even if they only donated money. He suggested that the court's arguments are flawed and emphasised that LG does not reject democracy, but instead appeals to the elected democratic bodies with its actions. When *Zeit Online* published an article (article ID: 165) addressing a separate court's accusation of LG as a criminal organisation on 21 May 2024, it also provided a more balanced perspective than *FAZ*. Besides the court's reasoning, the article also cited an expert suggesting that the court is exaggerating and included an indirect quote of LG supporters which appealed to the public prosecutor's office to reconsider pursuing legal action against the group.

On 4 January 2024, both *FAZ* and *Zeit Online* published one article, covering similar content and focusing on police statistics related to LG's climate actions. The *FAZ* article (article ID: 73) adopted a more critical stance towards the activists, employing stronger, more negative language describing the police as being 'massively burdened'. *FAZ* provided detailed information about the police workload, citing specific figures like 320,000 work hours. In contrast, *Zeit Online* (article ID: 149) only mentioned an increased work load and uses milder terminology like 'significant additional burden' and 'protest actions'.

Differences could also be found between *Zeit Online* and *taz* when publishing articles with similar content. The *Zeit Online* article (article ID: 167), published on 19 June 2024, presented a mostly factual report of the charges against an LG activist. However, the article focused exclusively on the charges without providing any counterbalance from the activists that were accused, or any other supporters. In contrast, the *taz* article (article ID: 304), published on the same day and covering the same topic, approached everything from a wider angle. It opened up a conversation about the need for these charges and gave the activist a chance to share her perspective. Rather than just reporting the charges, the article also shed light upon the activist's motivations and the context behind her actions, and thus provided a more balanced view.

6.2 Interpretation of Findings

Communication Strategies

An examination of the publication dates between 1 August and 30 September 2024 reveals concentrations in certain time periods, reflecting the groups' offline actions. FFF, for instance, held its global climate strike on 20 September 2024, which coincided with a noticeable spike in published posts around that time. While the group started promoting the demonstration already mid-August, in particular the days leading up to the event saw a significant increase in the number of published posts. All posts from 5 September 2024 until the date of the climate strike are either solely focused on promoting the strike or include references to the upcoming event. This is consistent with Klinker's (2023) observation of FFF's emphasis on mobilising for climate strikes.

In the case of LG, a notable concentration can be found in the first half of August and particularly on 8 August 2024 in response to house searches. Other posts in the early weeks of August can be attributed to the group's protests at German airports, where it called on the government to sign the 'Fossil Fuel Treaty'. This international treaty ensures a fair phase-out of oil, gas, and coal by 2030. Another spike occurred around 28 September 2024, aligning with the start of its protest week in Kassel, which began on 25 September. This matches again Klinker's (2023) findings that most of LG's content focuses on its protests, with videos often featuring demands stated on-site, footage of confrontations, and photos documenting these events.

Even though a systematic sampling was applied for LG and only every second post was coded, they still exceeded the total number of posts shared by FFF. Given that the number of LG's posts would have been nearly double without systematic sampling, it is evident that during the examined time period, LG posted approximately three times as many posts as FFF. These frequent posts align with LG's offline tactics, which prioritise quantity and frequent disruptions, and could heighten the visibility of its posts and thus its message. A higher posting frequency might also be a strategy to keep climate change and the group's demands on the political agenda, as well as maintain media visibility, as it increases the likelihood that its actions will be picked up by news outlets. The content, including footage of activists engaging in risky actions like blocking a runway or reporting on the legal consequences, is newsworthy and dramatic, capturing people's attention and making it very appealing to watch and follow (McNair, 2017). Additionally, the availability bias suggests that the more frequently information is encountered, the more likely people are to accept it (Spaiser et al., 2022). FFF, in contrast, focuses on larger, well-organised strikes and actions that are carefully planned and promoted in advance, including legal actions. This supports Meyer, Pröschel, and Brüggemann's (2023) observations on the differences in FFF's and LG's protest strategies. Due to the high number of posts, it seems that LG spends less time refining the design of its content, keeping it rather simple. This becomes evident in its use of raw footage, which are primarily videos where activists record themselves with their phone to share their motivations and experiences, often directly from protest sites. These videos can be easily taken by every member of the group and shared with minimal time investment. FFF, in contrast, pays more attention to the appearance and quality of its posts. This is partly reflected in its videos which primarily feature professional monologues that are filmed with a professional camera and external microphones.

Both groups leverage Instagram's affordances to fulfil the three key functions of climate movements according to Emmer (2019): providing information, fostering interaction, and encouraging participation. Information is provided by frequently mentioning the causes of climate change, though they often remain without further explanation. This may be due to the fact that the causes of climate change are widely regarded as common knowledge nowadays. Furthermore, impacts are present in about every fifth post by both groups, which underlines the urgency to take action now.

Interaction is encouraged through Instagram's features, including the comment section. The analysis revealed that LG's posts receive more comments than FFF's,

despite having fewer followers, which highlights the controversial nature of its protests and content (Rucht, 2023). As Brüggemann and Meyer (2023) have already observed, controversies can attract more attention, but it is crucial to assess whether this attention is constructive and fosters meaningful debate, or if it simply amplifies polarised discourse. Dialogue and subjective, bottom-up communication are recommended to effectively inform people and foster engagement (Nerlich et al., 2010), and creating open spaces for civil and thoughtful discussions can even encourage society to reconsider and potentially reshape its beliefs (Jacqmarcq, 2021). Hashtags were used in only a few of FFF's and LG's posts. This could be due to their already substantial follower counts and high level of public awareness in Germany. Nevertheless, in the case of LG, the hashtag #oilkills placed its actions within the broader context of the same-named campaign, and expressed a collective identity shared by the collaborating groups. These alliances and networking within the climate movement are important elements in generating social pressure (Klinker, 2023). Furthermore, while both FFF and LG maintain various separate accounts for local groups in different cities, only LG consistently posts collectively, incorporating local groups into its main account content. This approach highlights the group's cooperation and focus on specific cities for protests, presenting it as a more interconnected and cohesive movement. In addition, collective posts may reach a wider audience and foster solidarity. Furthermore, while celebrities can play an important role in promoting movements (Duvall & Heckemeyer, 2018), they were almost entirely absent during the examined period. Both observations could be attributed to the limited time frame of the analysis, also because some celebrity posts were observed in other periods not included in the selected timeframe.

Finally, both groups frequently encourage viewers to join their protests or support the movement in other ways, such as signing petitions or donating money, in the case of LG. Their posts seem primarily focused on attracting new supporters, but they also serve to foster solidarity among existing supporters and inform them about on-going protests and actions.

These findings are also partly consistent with León et al.'s (2023) identified social media strategies for organisations which involve building a community, raising environmental awareness through education, making scientific knowledge accessible to the public, and influencing opinion leaders and decision-makers. Although adherence to science plays a role, it is not the primary focus for either group. Buzogány and Scherhaufer's (2022a) research indicated that a significant portion of FFF's and

XR's external communication emphasised the role of science; however, this thesis found such references in only 10-12% of FFF's and LG's posts. Nevertheless, FFF's stronger use of infographics, which were almost absent in LG's posts, aligns with their findings that FFF relies more heavily on scientific facts compared to XR. Instead, similar to XR's workshops, LG offered protest camps, Zoom calls to educate participants about its actions, and training sessions on civil disobedience. It remains unclear, however, whether these actions also include education from a more scientific perspective about climate change.

Additionally, some posts by FFF and LG directly address politicians, sometimes even tagging them, to create pressure, but this is also not their central focus. Furthermore, León et al. proposed four more strategies to approach citizens effectively: '1. Finding common ground; 2. Emphasizing here and now; 3. Focusing on the benefits of engagement; 4. Creatively empowering people' (2023, p. 8). Both groups use these strategies to some degree, but FFF tends to emphasise the 'common ground' and 'here and now' more directly than LG. This becomes visible through its consistent appeals to the public in every post and more frequent references to the present reality of the crisis. Furthermore, both groups produce creative content to engage their audiences. FFF, for example, shares well-produced and edited videos that inform viewers of its motivations and promote events like the global climate strike, often accompanied by energetic music. Similarly, LG creates impactful content, including humorous memes and videos that feature already spectacular content due to the actions themselves.

It becomes clear that FFF's focus extends beyond climate issues, encompassing the broader conditions that are necessary for combating climate change, such as supporting democratic parties and advocating for a good public transportation system. FFF shares the main goal of phasing out fossil fuels with LG; however, during the examined two months, LG appears to focus specifically on oil, particularly in relation to airports and subsidies. This differs from its goals mentioned in 2023, which also included combating food waste, advocating for more affordable public transportation or a societal council. It may highlight the ongoing shift in some of the group's demands that has already been observed (Kartschall, 2023). These approaches by FFF and LG align mainly with the 'civic environmentalism' discourse (Bäckstrand & Lövbrand, 2007, 2019), which advocates for a just and radical transition away from fossil fuels. FFF's demands appear realistic and are clearly articulated, alongside its call for the government to comply with existing climate agreements, aligning with Klinker.

Nevertheless, it is evident that both movements focus more on what they oppose, such as fossil fuels, rather than actively promoting positive alternatives like investment in renewable energy or public transportation. This approach aligns with findings on social movements from the past century, as well as with Greta Thunberg's demands, which emphasise the consequences of inaction over specific solutions (Downing, 1988; Nordensvard & Ketola, 2022)

Further consistencies with Klinker's (2023) observations were found in terms of FFF's efforts to respond to current political events by engaging directly with specific politicians and openly criticising their inaction. This direct approach of asserting blame and pushing leaders to take decisive action by FFF also aligns with Buzogány and Scherhaufer's (2022a) findings who observed this tendency more frequently in FFF compared to XR, which pursues similar goals to LG. In contrast to XR, LG also sometimes directly targets specific actors, though they are not leading politicians in Germany, such as Kassel's mayor and the airport association ADV. Aside from that, the movement tends to focus its criticism on the broader system and the government as a whole, which is consistent with the findings on XR. Based on Svensson and Wahlström's (2023) categorisations, FFF's prognostic frames can be classified as a combination of top-down system development and civic system change, where the group primarily assigns responsibility to the government but also takes action itself to pressure the government to act. This includes protests, petitions, or initiatives like suing the government to enforce adherence to existing climate goals. In addition, FFF fosters long-term civic involvement. LG, in contrast, places a stronger emphasis on civic system change, focusing on disruptive actions and civil disobedience as methods to pressure governments into action, but the group also incorporates elements of civic system development through its community-building efforts. These include, for instance, building solidarity among activists and advocating for a socially just transition. While its desired outcomes are still top-down system changes, it primarily uses bottom-up methods to achieve them. The presence of civic system change frames, combined with anti-elite sentiment, highlights the activists' lack of confidence in the German government's ability to adequately address climate issues (Burgess et al., 1998). Interestingly, none of the groups mention any action plans for how individuals can reduce their personal carbon footprint. This underlines their focus on holding political decision-makers accountable rather than placing responsibility on individuals. This becomes evident in one of LG's posts, where the activists explicitly state that they do not want to make people feel ashamed for flying

with their protests but instead the government should be ashamed (post ID: 76). This stands in contrast with Buzogány and Scherhaufer's (2022a) findings on XR, which places a greater emphasis on individual behaviour change. It suggests that there are also significant differences between more radical groups like XR and LG, or perhaps a shift has occurred since the period examined in the mentioned study.

Populist rhetoric helps to form a collective identity and understand complex issues by simplifying it (Nordensvard & Ketola, 2022). Contrary to Swyngedouw's (2010) observation of populism in the climate change debate, which frames CO_2 and the environment as the opposing force and thereby depoliticises the issue, this was not observed in this study. While emissions are identified as a key problem, FFF and LG frame the issue in political and economic terms, directly addressing power imbalances and systemic failures, and holding the government accountable. This finding can be attributed to the fact that this study focuses specifically on climate activism, which represents only a small part of the broader climate change debate and excludes other actors, including the elite, who may contribute to depoliticising the issue.

Both FFF and LG employ clear populist tactics that partly remind of Greta Thunberg's approach. However, unlike Greta Thunberg's leadership in the early stages of FFF, neither group currently has a single, definitive leader. While prominent figures exist, they are not the sole voices representing the movement. Despite Luisa Neubauer being the face of FFF Germany, a focus on just a few leading figures does not necessarily become apparent for FFF during the examined two months, which stands in contrast with Kartschall's (2023) findings. Nevertheless, personalised content plays a crucial role for both groups where activists film themselves and speak to the audience directly, giving the movement a human face. The high number of likes on posts featuring Luisa Neubauer supports Klinker's (2023) findings, which suggest that personalised content drives higher engagement. However, her status within FFF Germany has likely also contributed to the enormous engagement rate.

Rather than relying on the charismatic bond between a specific leader and their followers, FFF's and LG's use of populism focuses on building a unified front against the elite, with the groups positioning themselves as acting in the interests of the common people. In fact, researchers such as Thomas-Walters and Young (2023) and Klinker (2023) suggest that groups with a more radical stance should focus on pressuring the elite, in particular actors within the fossil fuel industry, into action while simultaneously strengthening public support through appeals to the broader population. Despite climate change being a very complex challenge for humanity that

is characterised by conflict and uncertainty (Nordensvard & Ketola, 2022), the groups present it as a straightforward issue with clear distinctions between good and bad. In particular FFF uses black-and-white solutions every now and then, which make the resolution of climate change appear simple. FFF's higher use of these simplifications echoes Greta Thunberg's approach, where solutions are framed as two choices: either business continues as usual, or the emission of greenhouse gases is stopped.

Both groups make conscious use of rhetorical strategies to create a sense of urgency and moralise conflicts, portraying themselves as the 'good' side while framing politicians and fossil fuel corporations as the 'bad' actors. This can also be seen as a form of simplification of complex issues. In particular their use of apocalyptic rhetoric and appeals to collective responsibility may reinforce these frames. FFF often speaks about a present 'climate crisis' that needs immediate action, aligning with Buzogány and Scherhaufer's (2022a) analysis on its used master frames. While LG often frames the future as one that demands immediate action to prevent mass extinction, it does not always employ a post-apocalyptic narrative, as seen with groups like XR (Buzogány & Scherhaufer, 2022a). According to expectations, LG makes use of apocalyptic rhetoric slightly more frequently than FFF; however, the differences are not substantial. Nevertheless, the observed (post-)apocalyptic phrases in the case of the LG tend to be more extreme, which again aligns with expectations. Both FFF and LG employ apocalyptic rhetoric more frequently than post-apocalyptic rhetoric, which may be due to the groups' desire to heighten the perceived urgency of the crisis instead of implying that it is already too late, while also acknowledging the consequences that result from inaction. This approach may still induce hope and encourage people to take action (de Moor, 2022; de Moor & Marquardt, 2023).

Both groups mention occurring impacts of climate change in every fifth post. By balancing both local and distant impacts, FFF effectively presents the risks in a way that raises public awareness and encourages engagement, making the threat of climate change more relatable and urgent to a wider audience (Areia et al., 2019; Spence & Pidgeon, 2010). Additionally, by portraying the crisis as present and ongoing in half of its posts, the group emphasises its relevance for current generations, not just for future ones, reinforcing the immediate need for action. In contrast, LG's stronger focus on global impacts and the death of millions of people highlights the severity of climate change and aligns with its more extreme narrative. This is consistent with Buzogány and Scherhaufer's (2022a) results in terms of climate justice, which is framed in terms of generational concerns as well as socially just transitions

by both groups. However, while 'millions of lives' can also include those in Germany, LG's approach frames the issue as more distant both temporally and geographically by not explicitly emphasising local and immediate effects. This is further supported by the fact that LG describes the crisis as a present issue in only a third of its posts, which is less frequent compared to FFF's posts.

Emotions play a crucial role in driving action. Anger is the predominant emotion for both FFF and LG, and a previous study has shown that 'moral outrage' has been a key driver of collective mobilisation for XR (Furlong & Vignoles, 2021). For FFF, environmental threat has been identified as a possible motivator, which can evoke a range of emotions, including anger, and the group could amplify it through its use of apocalyptic and post-apocalyptic rhetoric (Haugestad et al., 2021). This rhetoric can also evoke fear, which again can act as a motivator (Kleres & Wettergren, 2017). While fear was rarely the predominant emotion in either FFF's nor LG's posts, it may still have been present in a more subtle form alongside other emotions through the use of apocalyptic and post-apocalyptic rhetoric. However, some stress the importance of including feelings of hope over purely negative ones (Kleres & Wettergren, 2017). Similarly, it is recommended to combine distress appeals with credible solutions or to emphasise gain frames over loss frames (Futerra, 2005; Moffic, 2007; Spence & Pidgeon, 2010). FFF tends to adopt a more positive tone compared to LG, with a larger number of posts conveying hope or joy as the dominant emotion. Nevertheless, it is important to mention that this finding was no statistically significant. However, a sense of hope is further strengthened by the mentions of its success stories, which increase trust in the movement's collective actions. Hope, in contrast, has not been identified as a significant predictor of collective action in the case of XR (Furlong & Vignoles, 2021), which may also explain its lower prevalence in LG's strategy. FFF's slightly more positive approach is further reflected in its predominant use of green, a colour often associated with nature and positivity, while LG's use of orange and high-visibility vests underscores a focus on danger and urgency. This stronger emphasis on positive feelings as well as less extreme apocalyptic rhetoric distinguishes FFF's strategy from LG. It aligns with the goals and statements on their websites, where FFF portrays itself as determined but hopeful, while LG shows a more pessimistic outlook on the future. The influence of these chosen strategies on collective action, however, may be more difficult to assess, as the barriers to participation differ significantly between the two groups. It is generally easier to join a large demonstration than to engage in acts of civil disobedience, which often require a higher level of commitment

and risk. Consequently, these different types of protest may also require distinct combinations of emotions and motivational drivers.

Media Portrayal

Between 1 September 2023 and 30 June 2024, news coverage of both FFF and LG notably declined across all three major outlets over time. The coverage appears to reflect several key events: September 2023 was characterised by FFF's global climate strike, with multiple articles published by each news outlet. The media attention stayed high for October and November, coinciding with the emergence of the Middle East conflict, which became a controversial and widely discussed topic for FFF. In February 2024, *taz* experienced a spike in articles, primarily due to its coverage of FFF's joint protests with ver.di advocating for better public transportation which the other news outlets did not cover to such extent. For LG, September 2023 was characterised by highly controversial actions, including a paint attack on the Brandenburg Gate and an attempted disruption of a marathon. While the coverage generally appears to be linked to protests, a gradual decline becomes evident for both FFF and LG towards summer 2024. The subsequent decrease in coverage could be explained by either a reduction in the frequency or intensity of their actions, or a shift in media attention towards other issues which were considered more important, such as the Middle East conflict or the European Parliament election. Additionally, there could have also been a normalisation of the actions, which would increase the difficulty for activists to generate the needed public attention. This interpretation could be supported by LG's strategy shift in January 2024.

According to Scheuch et al. (2024), legal protests receive more extensive media coverage and are subject to a more positive tone than illegal actions. The results of this study partially align with their findings, as FFF received more favourable coverage compared to LG. It is important to note that the effect size of this difference in portrayal was relatively small, which was influenced by the negative coverage FFF received due to Greta Thunberg's stance on the Middle East conflict. If this thesis had concentrated exclusively on climate issues, the general sentiment towards FFF would have been even more positive. However, contrary to Scheuch et al.'s findings that legal protests receive more coverage, there is a significant discrepancy in the amount of press attention given to each group. During the specified time frame, the analysed news outlets produced a total of 200 articles about LG, nearly doubling the 106 articles

dedicated to FFF. This finding, instead, aligns more closely with Meyer, Pröschel, and Brüggemann's (2023) work, which revealed that LG's protests sparked significantly higher levels of Twitter engagement compared to FFF. This contrast in coverage volume suggests that the more controversial and disruptive tactics employed by LG may have been more effective in capturing media attention, even though at the cost of a more negative portrayal. Heightened media coverage can be beneficial for mobilisation purposes and creating pressure on powerful entities, however, the tone of news coverage is crucial in shaping climate attitudes. While positive news coverage of climate protests enhances pro-climate attitudes, negative coverage diminishes support and may lead to disengagement (Kenward & Brick, 2023). The negative coverage of LG, therefore, may have reinforced a negative public opinion, as suggested by Feinberg et al. (2020) in their concept of the so-called 'activist's dilemma'. Nevertheless, it is important to mention that FFF only organises two global climate strikes per year, whereas LG engages in more frequent and persistent activism, sometimes arranging multiple protests per week. These frequent protests may also create more opportunities for journalistic reporting, in particular due to their newsworthiness and disruptive nature, explaining the higher volume of LG articles. Moreover, news media may feel obligated to report about LG's protests as part of their responsibility to keep the public informed about ongoing social and political activities. Further consistencies with Scheuch et al.'s work can be found when taking a look at the number of articles, which shows a higher frequency for both FFF and LG in conservative and left-leaning news outlets. While *taz* published the most articles, *Zeit Online*, which can be considered the most neutral among the examined news outlets, published the least. This supports the assumption that climate activism receives more extensive coverage in partisan media outlets.

Consistent with existing literature (Meyer, Pröschel, & Brüggemann, 2023; Meyer, Rauxloh, et al., 2023; Scheuch et al., 2024; von Zabern & Tulloch, 2021), the findings support the tendency of conservative news outlets to adopt a more critical stance towards climate protests compared to their neutral or left-leaning counterparts, in particular when they challenge the status quo. This demonstrates that political orientation is a significant factor influencing support for climate protests. The analysis revealed a clear pattern in the tone of reporting: the conservative news outlet *FAZ* used the most negative tone when covering LG and dedicated the highest average word count to articles, while the left-leaning *taz* demonstrated the most positive coverage and shortest articles. This disparity is further emphasised by the outlets' choice of

framing: *FAZ* frequently employed 'threat' frames, portraying LG's actions as potentially dangerous to society and the socioeconomic order. Conversely, *taz* made the strongest use of 'David vs Goliath' and 'intergenerational justice' frames, displaying the activists in a more sympathetic light as underdogs fighting for future generations.

It was qualitatively observed that supportive authors highlighted LG's disruptive yet peaceful activism as an integral component of democratic participation, which is consistent with findings by Meyer, Pröschel, and Brüggemann (2023). *taz* not only portrays climate activists more favourably in general but also appears to actively contribute to activism. Unlike the other news outlets, *taz* features a section called 'Bewegungstermine in Berlin' (movement events in Berlin) which is typically published weekly. Articles under this section list upcoming political and climate protests, readings, speeches, discussions, and similar events, effectively serving as a resource for potential activists. Furthermore, *taz* incorporates a climate clock in the sidebar of all articles categorised under the 'climate change' focus, counting down the time remaining until the 1.5°C warming threshold is reached. This countdown feature visually emphasises the urgency of climate action, distinguishing *taz*' approach from that of the other outlets and positioning it as a facilitator. Interestingly, at the time this chapter is written, Luisa Neubauer announced that she will be a columnist at *taz* for two months, reporting about her current experiences in the United States where she seeks to connect with other movements and understand their strategies. This underlines *taz*' positive stance towards climate activism.

A closer examination of the portrayal by the three news outlets reveals both alignments and discrepancies with von Zabern and Tulloch's (2021) findings, who also studied *FAZ* and *Zeit Online*. Consistent with their research, *FAZ* predominantly uses episodic framing to portray climate protests and does so to a higher extent than *Zeit Online* and *taz*. However, this study's findings contradict von Zabern and Tulloch's observations regarding *Zeit Online*. While they found that *Zeit Online* depicts protesters with self-agency and emphasises intergenerational justice, this thesis reveals a different picture. Contrary to expectations, *Zeit Online* portrays FFF the least favourably, adopting an even more negative tone than conservative *FAZ*, and displaying the movement as ignorant and naive. Although this finding did not reach statistical significance, this unexpected trend calls for further investigation. Furthermore, despite *Zeit Online* using the 'intergenerational justice' frame more

frequently for LG compared to *FAZ*, this frame is overshadowed by its predominant use of the 'threat' frame.

Not only *FAZ* and *Zeit Online*, but also *taz* - despite its dedicated support for climate activism - often portrayed disruptive protests in a negative way, even though less frequently. LG activists were portrayed as deviants or criminals, framing them as a threat. This aligns with previous literature stating that media coverage becomes more polarised and unfavourable the more a protest threatens the socioeconomic order (McLeod, 2007; Meyer, Rauxloh, et al., 2023; Scheuch et al., 2024; von Zabern & Tulloch, 2021). While there is widespread support for climate protection policies, the use of disruptive protest tactics risks diminishing support even among those with left-leaning or centrist political orientations (Saldivia Gonzatti et al., 2023). Followingly, disruptive protests by LG are covered more negatively compared to conventional ones like FFF, adhering to the protest paradigm.

The protest paradigm is further reinforced by coverage emphasising confrontations with the police which occurred frequently in reports about LG (Chan & Lee, 1984) as well as highlighting the public's disapproval. Additionally, LG protests are often framed episodically, reducing them to isolated events rather than addressing the underlying issues, which is in line with the protest paradigm (von Zabern & Tulloch, 2021). FFF and its protests, in contrast, are portrayed mainly through a thematic frame. Although *FAZ*, *Zeit Online* and *taz* also report negatively about FFF, their coverage is significantly more balanced compared to that of LG. For FFF, these outlets provide a mix of positive, neutral, and negative coverage, with neutral reporting being slightly predominant.

Furthermore, the analysis found that FFF's specific demands were stated more often than its general goals. For LG, however, it was the opposite: its general goals, such as raising attention or building pressure, were highlighted more often than its demands. This could be because the provocative and disruptive nature of LG's protests tends to shift the spotlight to its actions, moving the group's demands into the background. In addition, FFF's views might be seen as more relevant to the political discourse, due to its more traditional protest methods and already established role in climate policy debates. This perspective is supported by the occasional framing of FFF's demands as achievable, which is completely absent in the coverage of LG. Journalists might also frame these groups differently based on their own perspectives or the editorial stance of their outlets, which could influence how much weight they give to each group's goals versus its specific demands. For instance, this might explain

why *FAZ* reported on LG's general goals much more frequently compared to *Zeit Online* or *taz*, while at the same time mentioning LG's specific demands the least. This approach may serve to delegitimise LG by presenting it as less focused on concrete policy proposals and more on causing disruption, and thus also distract from its specific climate-related demands. Another possible reason could be the frequent coverage of LG's protests. Given the high number of articles published, sometimes within a short timeframe, journalists might not feel the need to repeat the group's demands in every article. This approach may be based on the assumption that readers are already familiar with LG's objectives due to the frequent coverage, or from a decision to focus on the newsworthy aspects of the protests.

Another noteworthy finding concerns the attribution of authorship. For both climate movements, *taz* mentioned the author most frequently, while *Zeit Online* did so the least. Interestingly, all three news outlets showed a consistent pattern of less frequent author attribution when reporting on LG compared to FFF. When a journalist is named explicitly, there is a high level of source transparency and the journalist takes responsibility for their statements. The reduced frequency of author attribution could have two explanations. On the one hand, it may indicate a higher reliance on press agency reports for coverage of LG's activities perhaps due to the high frequency or controversial nature of its protests. On the other hand, it could also be that journalists are more hesitant to put their names on articles about controversial issues, maybe because they are worried about getting negative reactions from the public or want to maintain objectivity. This calls for further investigation.

A positive finding emerges from the analysis of 'who gets to speak' in media coverage. Both movements dominate the discourse in articles covering their actions. This means that the groups' perspectives, motivations, and justifications for their actions are often featured and that their viewpoints are given more weight or space in the article compared to other sources such as politicians, experts, or similar. Nevertheless, while FFF is given a voice in 75-93% of articles, quotes by LG appear in only 57-67% of its coverage. This is consistent with previously mentioned results that revealed that LG is given fewer opportunities than FFF to publicly communicate its message. While FFF often gets the chance to state its demands, LG is less often given a platform to explain its actions and objectives. This helps build a narrative that could weaken the group's legitimacy. At the same time, the police and executive are frequently cited in LG coverage. This could serve multiple purposes: the police are an official source for factual information about the protests and due to the protests'

disruptive nature, they are often involved on-site and therefore consulted as a relevant source. Furthermore, as part of the executive, the prosecution was often mentioned in articles that reported about potential charges against the activist group. This underscores the controversial and often illegal nature of LG's protest tactics.

Interestingly, some frames did not appear at all, such as 'truancy' and 'activist without activism'. In additon, the 'Hamelin' frame was coded only once for FFF Germany's face Luisa Neubauer. The fact that the 'activist without activism' frame was missing indicates that media reporting has evolved to focus more on the substantive issues and political demands of climate activists, rather than on their personal lives. It suggests a deeper engagement with the climate crisis and the activists' agenda instead of trivialising the movement. The absence of the 'truancy' frame suggests a shift in media portrayal of FFF protesters, potentially moving towards recognising them as legitimate political actors rather than students skipping school and thereby focusing more on their message and the climate crisis itself. Since FFF's establishment in 2018, Greta Thunberg as well as the movement's initial activists have grown older and many have already finished school. LG, on the other hand, was never directly associated with a school strike, explaining why the frame was not applied either. This is supported by the complete absence of citations from 'education officials' and 'parents' or the discrediting portrayal of the 'exploited protester'.

Due to this shift, the frames 'pupil', 'absentee', 'dreamer' and 'young heroine', proposed by Bergmann and Ossewaarde (2020), are not applicable anymore. Nevertheless, the 'pupil', 'absentee' and 'dreamer' frame might translate to the 'activism without activists' or even 'threat' frame, highlighting the activists' incompetence and disruptiveness, and delegitimising them. 'Young heroine' instead could be effectively replaced by the 'Hamelin' frame. The findings of this work mostly align with those of Bergmann and Ossewaarde, who discovered that *FAZ* exhibits more scepticism towards climate activism and *taz* demonstrates greater support, although not without some reservations. Nevertheless, a notable discrepancy was found in the portrayal of Greta Thunberg. In 2020, while she was often celebrated as a role model and leader, her young age was simultaneously depicted negatively. The results of this thesis, however, do not indicate such praised portrayal. In fact, she was heavily criticised for her 'undifferentiated' stance on the Israeli-Palestinian conflict, potentially due to an ongoing mistrust towards youth engagement in complex political issues, leading to persistent scepticism regarding Thunberg's views.

In late 2023, FFF activists, and other activists from the political left, faced severe criticism for alleged antisemitism, primarily due to their support of Palestine and accusations of genocide against Israel, even comparing Greta Thunberg with a terrorist. However, the global discourse has evolved since then, as illustrated by South Africa's accusation of genocide against Israel in Gaza before the International Court of Justice in December 2023. A number of nations, such as Nicaragua, Colombia, Libya, Mexico, Spain, and Turkey, have expressed support for the lawsuit (Al Jazeera, 2024). Over the past few months, Israel's military actions in Gaza have faced increasing criticism, especially as concerns grow over how Palestinian citizens are being treated. This contrasts the earlier widespread condemnation of activist groups for similar stances. Interestingly, within the data collection period, articles addressing FFF and its stance on the Middle East conflict were published only until December 2023 and January 2024 across all three analysed news outlets. This timing appears to coincide with the just mentioned possible shift in international opinion. Once criticised for their view, activists now find those sentiments more and more echoed in the mainstream global discourse. This underscores the dynamic and complex nature of public opinion and the persistent scepticism activist groups and young activists have to face.

Although the news articles focus on climate movements and their actions, some also included information about climate change. They appeared more frequently in FFF coverage, indicating that topic is more prominently discussed in relation to FFF than LG. About a decade ago, Dotson et al. (2012) and Lopera and Moreno (2014) criticised that newspapers emphasised problems over solutions in climate change coverage. This study, however, reveals a different pattern, likely because of the inclusion of the activists' demands, which already often involve potential solutions to mitigate climate change. Although not directly comparable to the earlier studies, this observation underscores the importance of reporting activists' demands, as they typically address both causes and solutions at the same time. For instance, demands like 'phasing out fossil fuels by 2030' highlight both a key cause of climate change and a concrete action to address it. taz' strong inclusion of solutions may have also contributed to a stronger portrayal of climate change mitigation in its coverage, implicitly framing climate change as a challenge that can be actively addressed and mitigated.

Unlike the findings of Lopera and Moreno (2014) and Boykoff and Boykoff (2007), who criticised media for contributing to scientific uncertainty about climate

change, this study did not observe such a trend. Instead, the prevalent uncertainty found in the current analysis stemmed from political commitments. The media, often also through citing activists, frequently portrayed leaders and governments as falling short of established climate goals, often criticising them for insufficient action. This portrayal of political shortcomings, however, seems to be primarily used to explain the activists' motivations and to emphasise the need for individual action, rather than to evoke insecurity or challenge public opinion on climate change.

Due to the inclusion of citations for the analysis of climate change variables, such as quotes from activists, also apocalyptic rhetoric was prevalent. It became evident in particular in LG coverage and was likely included to create a sense of urgency and explain the group's motivations. Furthermore, while the articles address climate change consequences, the mentioning of the activists' demands results in a greater emphasis on solutions. This balances fear-induced messages which in insolation might lead to disengagement. Additionally, there is no clear focus on portraying climate change as a distant phenomenon nor its immediate and local impacts. However, researchers recommend emphasising immediate and local impacts to enhance public awareness and engagement, an approach that could be further amplified in the articles to achieve effective climate activism (Lopera & Moreno, 2014). These findings do not confirm a loss framing in European press coverage of climate change, as identified by Tavares et al. (2020), however, also probably due to this study's focus on climate activism, the active engagement with the problem, rather than climate change itself.

This is further supported by the notable absence of articles addressing climate change adaptation strategies, as opposed to mitigation efforts, supporting Tavares et al. (2020)'s and contradicting von Zabern and Tulloch (2021)'s findings on the prevalence of adaptation measures in media. Nevertheless, according to von Zabern and Tulloch, climate adaptation is fostered when climate movements and their activists are framed negatively when they challenge the status quo in order to uphold existing power structures. This results in a portrayal that depicts climate change mitigation as impossible. Following this interpretation, the negative portrayal, specifically of LG, would feed into the discourse of climate adaptation. Nevertheless, qualitative observations suggest a general acceptance for the core messages of both groups, acknowledging the need to mitigate climate change, but often criticising LG's methods. Discrepancies for this variable have risen questions in need of further investigation.

This imbalance reflects the predominant focus of climate activism on reducing greenhouse gas emissions and fighting the causes rather than preparing for the impacts of climate change. While Tavares et al. criticise the absence of adaptation measures in media coverage, it appears reasonable that articles on climate activism only focus on the activists' core message: mitigating climate change. Including adaptation measures in reports on climate activism could otherwise distract from the activists' main concern and might be interpreted as resignation and undermine the urgency of reduction measures. Nevertheless, also climate adaptation is essential to address the already visible impacts of climate change.

The visual analysis reveals a strong focus on photos from protests rather than on climate change itself and shows significant overlaps with Hayes and O'Neill's (2021) findings on protest imagery. While they observed a continued prevalence of confrontations between protesters and police in news images between 2009 and 2019, they noted a shift in the portrayal of protesters, depicting them in a more humanised manner. Notably, in images accompanying articles about LG, police presence was observed in every second to third image, strongly correlating with the contested frame and emphasising confrontations between protesters and police. This pattern, however, was significantly less prevalent in FFF coverage. Despite this one discrepancy with Hayes and O'Neill's findings, FFF activists are otherwise portrayed similarly to what was observed in their study from 2019: They are frequently depicted as young women, in an individualised and identifiable manner, displaying emotions that often express either complacency or seriousness. These findings confirm a shift in the visual representation of climate activists, where previously marginalised groups - young people and women - are now portrayed more prominently and sympathetically, also supporting the 'Greta Effect'. There is a focus on the leading figures of FFF International and Germany, Greta Thunberg and Luisa Neubauer, which are displayed in approximately one out of every three to four article images. While this suggests a shift towards intergenerational justice and away from the protest paradigm, findings on LG's visual representation notably diverge from this pattern. In contrast to FFF, the faces of LG activists are obscured in approximately one-third of the images. When visible, these faces are often depicted neutrally, without strong emotional expressions. This trend is especially prominent in *FAZ* coverage. While LG activists are primarily portrayed individually, group representations are also common and reflect typical street blockades. This closely aligns with the distinct protest strategies. While FFF typically organises large-scale demonstrations, LG carries out more targeted actions

involving smaller groups of activists, reflecting the number of activists portrayed in the article images. They are mainly young adults, but in every third to fourth image, it is challenging to identify their age due to non-visible faces or the presence of mixed-age groups. Unlike the predominant representation of young females in FFF coverage, LG imagery shows a more balanced gender distribution, including male, female, and mixed-gender group portrayals. The variations in age and gender representation reflect the actual diverse demographics of the group. However, other aspects of their portrayal raise questions, in particular the absence of visible faces and the lack of emotional expression when they are shown. Contrary to current trends in climate activism coverage, LG's portrayal appears to stick to the traditional protest paradigm, reproducing imagery and framing techniques which were common before 2019. This suggests that there might exist a media bias or resistance to adapt narratives to more disruptive forms of climate activism. Furthermore, in contrast to FFF coverage, most pictures of LG activists were captured from mid- or long-range perspectives, creating a visual distance between the viewer and activists. This photographic technique may reduce the emotional connection and empathy that viewers feel towards the activists, potentially reinforcing a sense of detachment. Such subtle editorial choice can influence public perception of LG. Nevertheless, it is noteworthy in a positive sense that both FFF and LG activists were mostly photographed at eye-level, which neither disparages nor elevates them. This approach places them on an equal level with the viewer.

7. Conclusion

7.1 Summary

The findings of this thesis largely align with previous research by Meyer, Pröschel, and Brüggemann (2023), Klinker (2023), Emmer (2019), Rucht (2023), León et al. (2023), Bäckstrand and Lövbrand (2007, 2019), Nordensvard and Ketola (2022) and Buzogány and Scherhaufer (2022a), while also offering new insights into the communication strategies of Fridays for Future and Last Generation. Although both groups share similar core messages, they employ different strategies to convey them. Notable differences were found in the content shared by both groups on Instagram: FFF mostly shares images and professionally produced videos, often with carefully designed posts, while LG prioritises quantity over quality, frequently sharing posts with a simpler design and posting videos recorded with phones to document protests. This strategy reflects LG's offline approach, which emphasises frequent disruptions and attention-grabbing actions. The group's controversial status becomes evident in the high number of comments it receives despite a smaller follower count than FFF. This raises questions about whether such engagement supports the climate change debate or is rather counterproductive. LG's posts are often produced collectively with local chapters or activist organisations it collaborates with, presenting it as an interconnected movement. FFF, in contrast, mainly posts independently from its local chapters. In terms of tone, FFF presents a somewhat more positive outlook by incorporating hopeful messages, showcasing successes, occasionally mentioning renewable energy, and using green tones in its visuals. In contrast, LG employs a more negative tone, with a stronger use of apocalyptic and extreme rhetoric suggesting a future of mass extinction. LG activists emphasise systemic corruption that prioritises corporate profits over human lives, frequently referring to politicians, wealthy elites, police, and oil company executives. The group also tends to highlight issues that deal with the legality of disruptive protests, or confrontations with police and what it describes as government repression aimed at silencing the group. LG's calls for financial support underscore a greater dependency on donations from supporters compared to FFF, which offers free mobilisation materials, produces professional content, and has the resources to engage in legal actions with other organisations to sue the government.

Despite these differences, both groups share several similarities in their communication strategies. They use Instagram to inform, interact, promote protests, as well as respond to offline events, aligning with findings by Klinker (2023) and Emmer (2019). Their posts often consist of personalised content, with posts featuring Luisa Neubauer receiving the highest engagement. Moreover, anger is a prominent emotion conveyed by both, and they heavily criticise current climate policies and governmental inaction. Climate change causes, apocalyptic rhetoric, and populist language are commonly mentioned or used by both groups, though some populist elements, like 'appeals to the people' and highlighting the 'presence of a crisis', are even more frequent in FFF's posts. Paired with references to both local and distant impacts of climate change, FFF discusses risks in a more balanced way, consistent with recommendations from researchers (Adams & Gynnild, 2013; Spence & Pidgeon, 2010). Both groups position themselves as fighting against an opposing force - primarily the government and the fossil fuel industry. FFF and LG urge political leaders to take responsibility, share similar goals such as phasing out oil, gas, and coal by 2030, and preventing all new fossil fuel projects. They push for bottom-up change, with FFF taking legal actions against the government and LG employing civil disobedience.

In terms of media portrayal, many observations align with prior studies, such as those by Scheuch et al. (2024), Meyer, Pröschel, and Brüggemann (2023), Meyer, Rauxloh, et al. (2023), von Zabern and Tulloch (2021), Bergmann and Ossewaarde (2020) and Hayes and O'Neill (2021). LG's higher activity is not only evident on Instagram but also reflected in the high number of articles published on the group, with differences across the news outlets. Media attention often correlates with FFF's and LG's offline actions, particularly FFF's global climate strike, though the coverage declined towards the summer months for unknown reasons. This calls for further investigation. Through both Instagram posts and media portrayal, it becomes clear that FFF extends its scope beyond climate issues, incorporating political topics, advocating for democratic principles, and promoting public transportation. By this, FFF recognises the interconnectedness of various fields that impact the feasibility of climate action. Additionally, climate change variables are more frequently mentioned in FFF coverage, suggesting that the topic is discussed more in connection with FFF than with LG. During the examined period, the Israeli-Palestine conflict prominently influenced coverage, with numerous articles focusing on FFF's stance. Consequently, while many articles addressed the protests, reactions, and controversies associated

with both groups, FFF's internal dynamics were often discussed in its coverage. For LG, however, coverage frequently highlighted legal consequences, emphasising its disruptive methods.

Coverage of LG is significantly less favourable, a pattern that may undermine its legitimacy by reinforcing a negative public perception and aligning with the protest paradigm: the group's protests are typically covered episodically, focusing only on the event without addressing the underlying issues. In contrast, FFF's protests are framed mainly thematically. Across the news outlets, LG is portrayed in a more negative light, with 'threat' frames depicting it as a challenge to socio-political order. While both groups dominate the discourse in articles about them, LG has fewer opportunities to voice its perspectives and convey its message compared to FFF. However, FFF was also subject to negative portrayals, particularly concerning its stance on the Israeli-Palestine conflict and the internal disagreements stemming from Greta Thunberg's support for Palestine, which FFF Germany tried to distance itself from. While FFF's climate-related demands are generally acknowledged, its views on the Middle East conflict were often delegitimised, presenting them as naive, uninformed or deviant activists. This suggests that FFF has evolved into a recognised political actor from students skipping school, yet there is still scepticism found towards it, and particularly in relation to Greta Thunberg.

Nevertheless, FFF's specific demands were more frequently highlighted, while for LG the focus was largely on its general goals, pushing the group's specific demands into the background. Similar trends are visible in terms of the public opinion, which was depicted as negative more frequently towards LG. LG activists are often characterised as deviant or criminal, and confrontations with the police are emphasised. Article images often underscore this contested framing, depicting the activists in conflict with opposing forces. The images align with LG's offline protest strategies, showing smaller groups of activists with demographics reflective of the group. Interestingly, LG activists are often shown without visible faces or emotions, with images taken from a greater distance than those of FFF, creating a sense of detachment. In contrast, FFF's portrayals feature predominantly young females in larger groups, presenting them in a relatable and humanised manner.

Notable differences emerge not only between the two movements but also between the three news outlets: *FAZ*, *Zeit Online* and *taz*. The results indicate that partisan news outlets publish the most coverage on both FFF and LG. Overall, *taz* reports most favourably on FFF and LG, while *Zeit Online* is the most critical of FFF,

and *FAZ* is the most negative of LG. This reflects the influence of political orientation on support for climate protests, with conservative outlets generally more resistant to challenges to the status quo. However, *Zeit Online*'s critical stance towards FFF is a surprising observation and contradicts von Zabern and Tulloch's (2021) findings. This trend is also reflected in the attention given to the groups' specific demands: *taz* mentions them most frequently, whereas *Zeit Online* does so the least for FFF, and *FAZ* focuses more on LG's general goals. Omitting specific demands may contribute to a perception of LG as less relevant to the climate discourse. Furthermore, *taz* reported most positively on FFF, partly because *FAZ* and *Zeit Online* placed greater emphasis on FFF's stance on the Israeli-Palestine conflict, which led to more negative portrayals. *taz*, in contrast, paid less attention to this topic and focused more on FFF's collaboration with ver.di to advocate for public transportation. In addition to that, *taz* presents FFF through an intergenerational justice lens nearly twice as often as the other two news outlets. In contrast, *Zeit Online* frequently employs the 'activism without activists' frame, presenting FFF in a negative light. For LG, despite a third to half of the articles lacking a distinct frame, all news outlets make significant use of the 'threat' frame. Yet, *taz* also employs 'intergenerational justice' and 'David vs Goliath' frames, which, in combination, surpass its use of the threat frame. *FAZ*, in particular, stands out for its portrayal of LG as a threat. The tonal analysis confirms these patterns, with half of *FAZ'* articles adopting a critical stance towards LG. The news outlet frequently cites critical voices, and highlights confrontations with police, legal proceedings, and financial damages from LG's actions, often with derogatory language. Additionally, *FAZ* portrays LG activists as deviant or criminal more frequently compared to *taz* or *Zeit Online*, and rarely provides space for LG activists to share their perspectives. In contrast, *taz* includes the activists' voices even in articles covering topics that are already unfavourable for LG due to their content, demonstrating a clear positive stance on climate activism. Nevertheless, while disruptive protests receive the most positive coverage from *taz*, it occasionally frames them negatively, suggesting that such protests might reduce support among left-leaning audiences.

7.2 Limitations

The generalisability of these results is subject to certain limitations. First of all, the workload constraints limited the number of posts and articles that could be included in

the study. Due to the large volume of posts published by Last Generation, the data collection period was narrowed down to two months which only allows for the capturing of the communication strategy within this specific timeframe. Although August and September 2024 were selected to provide a recent and up-to-date analysis of the groups' strategies, this time period may not fully capture their long-term approach and could be influenced by specific events occurring during these months. This becomes visible, for example, due to FFF's biannual climate strike, which took place in September and led to numerous posts referencing the event. Since this strike occurs only twice a year, posts in other months typically focus on different topics and actions. This may have resulted in a disproportionately high presence of variables promoting the event or encouraging the viewers to participate in the protest, which might not be as prevalent at other times of the year. Conversely, variables that were barely present during the two-month period, such as the inclusion of celebrities in posts and many other variables, might appear more frequently in other months.

The higher volume of posts related to the climate strike enabled a smaller systematic sampling method for LG; however, it also highlights that FFF's posting frequency is usually lower in other months, increasing the differences between the two groups. Due to the focus on a single media channel, Instagram, the identified communication strategy is specific to this platform and may not necessarily reflect the strategies used on other channels or in offline activities. Followingly, this thesis only captures FFF's and LG's communication strategies on Instagram for the examined time period. Nevertheless, the strong alignment of these findings with previous literature suggests that the observed strategies may reflect broader patterns in their communication approach.

Another limitation emerged through the qualitative analysis. The dichotomous approach for variables like 'apocalyptic rhetoric' limited the depth of the analysis, as it did not capture varying degrees of intensity. For instance, while apocalyptic rhetoric appeared in the strategies of both groups, it was more extreme in LG's approach - a distinction that the dichotomous variable could not adequately reflect. Although this difference was observed qualitatively, capturing it quantitatively would have been beneficial to understand the frequency and distribution of each intensity level. Similarly, while 'appeal "to the people"' was present in all of FFF's posts, the activists did not particularly portray themselves as heroes, as LG activists did in few posts. This distinction, however, only emerged through the qualitative analysis.

Regarding article selection, the study focused on news articles, opinion pieces, commentaries, and columns. Other types of articles were excluded from the analysis, despite their potential to offer additional insights, such as reportages. A larger sample size would have allowed for more representative results. This limitation becomes apparent considering that the 306 articles were further subdivided by news outlet and group, resulting in considerably smaller subsamples for each category. This subdivision potentially impacts the generalisability of the findings for individual news outlets and groups. Additionally, some variables were tied to specific conditions, and were coded only, for example, when the article covered a protest. This limited their occurrence and decreased the statistical impact. Nevertheless, the inclusion of a qualitative analysis attempted to counteract the limitations of the smaller sample size by providing deeper insights and contextual understanding.

Further challenges arose with articles covering both FFF International and FFF Germany. Even though this study focuses on FFF Germany, articles mentioning FFF International were also included, as its portrayal could influence the perception of FFF Germany. However, in cases where both entities were discussed within the same article, it complicated the analysis and led to potential difficulties in distinguishing between the two. Moreover, although this analysis focused on online news articles, it became apparent that *taz* also digitised some of its print articles, while it remains unclear whether *FAZ* did the same. Consequently, it was not always possible to determine which articles were exclusively online and which also appeared in print.

In addition, given their valuable insights and the limited research available on more radical climate activist groups, such as Last Generation, few preprints and working papers were included. While these scientific works have not undergone a peer review yet and lack formal quality assurance, their findings align with those of peer-reviewed literature and this thesis. Furthermore, the authors' h-index was assessed in order to ensure that at least one had substantial experience and was recognised in the research field. For these reasons, the papers were considered suitable for inclusion.

Lastly, another potential limitation could be the influence of the present author's personal views, which may have impacted the objectivity of the analysis. Given a supportive stance towards the activists and their goals, there is a risk of unintentional bias, potentially leading to a more favourable interpretation of the findings. However, the use of a well-defined codebook aimed to mitigate any potential subjectivity.

7.3 Future Work

Due to time constraints, this study was limited to a two-month analysis of Instagram posts by FFF and LG. Examining a longer period would provide a more comprehensive understanding of their overall communication strategy, enhance the generalisability of the findings, and reveal potential shifts in strategy in response to events like the biannual climate strikes. In addition, analysing the communication strategies and media portrayals for the same time period would offer interesting insights into how the issues and demands presented by activists on Instagram align with the news coverage of their activities.

This study has provided valuable insights into the groups' communication strategies on Instagram; however, including other social media platforms, such as X, Facebook, and others, can be recommended to achieve an even broader understanding. In addition, the visual analysis of images featuring activists was conducted only for news articles and not for Instagram posts. Nonetheless, it could be valuable to explore how activists portray themselves in photos on Instagram, considering factors such as the number of activists, facial expressions, age, gender, photographic choices and so on - similar to the variables used in the media analysis. This would allow for a comparison to determine whether their self-portrayal differs from how they are depicted in the news. While this thesis also considered the number of likes and comments each post received, future research could analyse the comments in greater depth to determine whether the higher comment volume on LG's posts actually stems from discussions between supporters and non-supporters. Here, it would be particularly interesting to assess the predominant tone and understand the proportions of supporters versus hostile voices among the commenters. Such an analysis would provide insights into how the posts are perceived and help evaluate whether the group's communication strategies are effective or merely intensify the already existing polarised discourse. Furthermore, reactions to posts containing specific variables, such as particular emotions, rhetoric, or frames, could be analysed to identify potential correlations. Moreover, future studies on the groups' communication strategies could refine some variables by incorporating ordinal scales rather than solely nominal ones, enabling a more nuanced measurement of variables such as apocalyptic and post-apocalyptic rhetoric, as well as populist elements like anti-elite sentiment, emotionally charged language, and appeals 'to the people'. In addition, refining the variable 'black-

and-white simplification' would be beneficial to capture not only binary solutions but also other types of simplifications employed by the groups.

In terms of media portrayal, the inclusion of other text types, such as reportages or interviews, could provide additional insights. While this media analysis covered a wide range of variables and thus was already highly comprehensive, a larger sample would be needed to achieve results with greater statistical significance. Future research could either expand the sample size or focus on fewer variables to enhance generalisability. Furthermore, a stronger qualitative approach could allow deeper insights into the nuances of FFF's and LG's media portrayal. Similarly to reactions to LG's Instagram posts, it would be valuable to assess whether the predominantly negative coverage of LG that was found during the media analysis also contributes to a heightened negative public opinion. Exploring this influence of news reporting would provide valuable insights into the responsibility journalists hold and could support the creation of a balanced, fair environment where climate movements can voice their concerns and are heard.

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9. Appendix

Figure 1

Distribution of Articles About Fridays for Future in FAZ Over Time

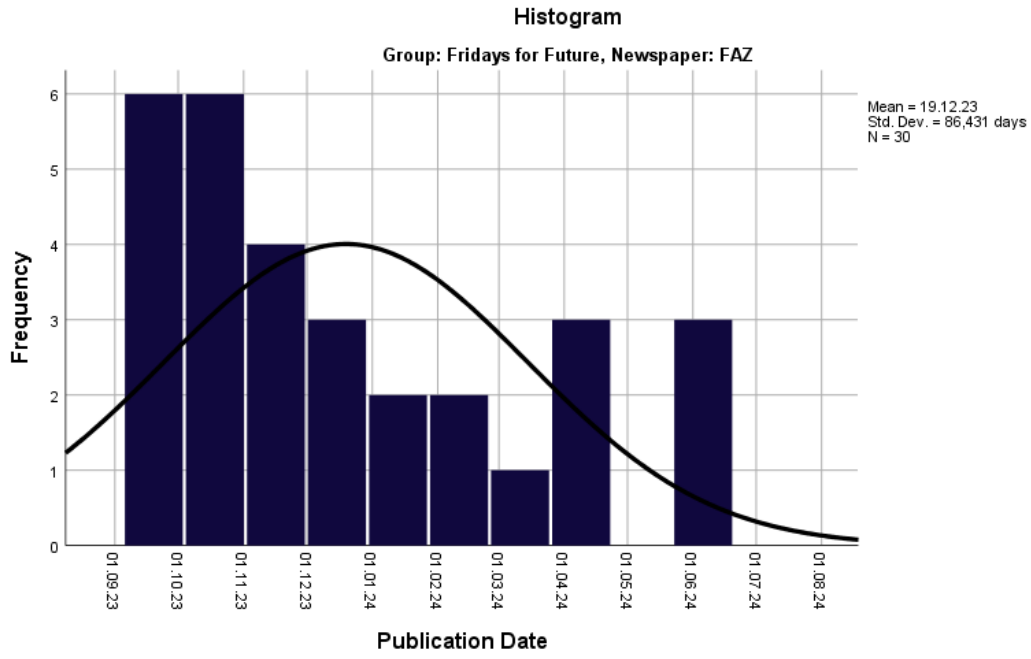


Figure 2

Distribution of Articles About Fridays for Future in Zeit Online Over Time

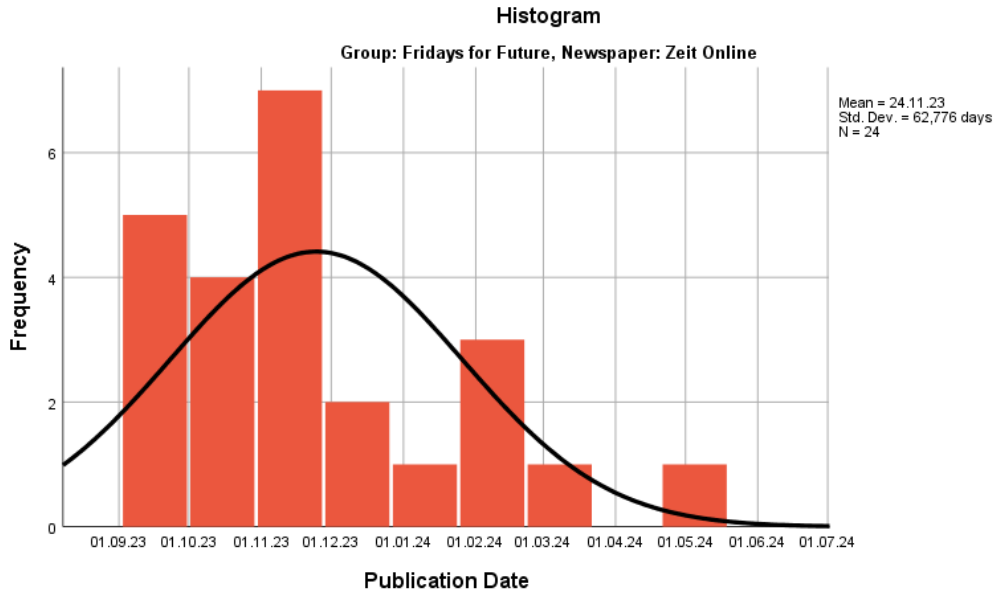


Figure 3

Distribution of Articles About Fridays for Future in taz Over Time

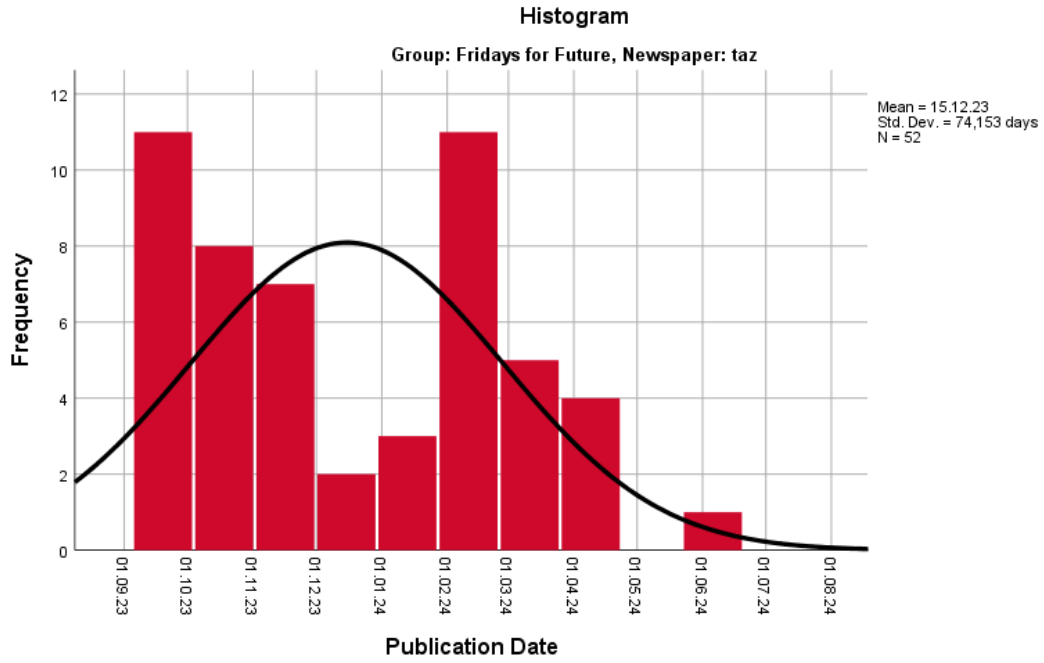


Figure 4

Distribution of Articles About Last Generation in FAZ Over Time

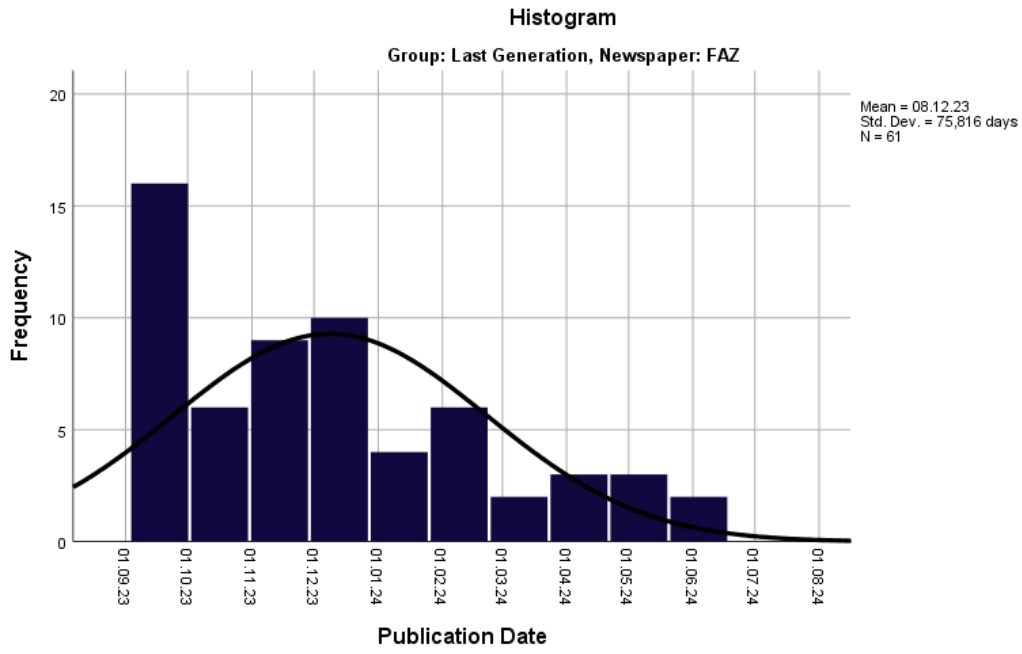


Figure 5

Distribution of Articles About Last Generation in Zeit Online Over Time

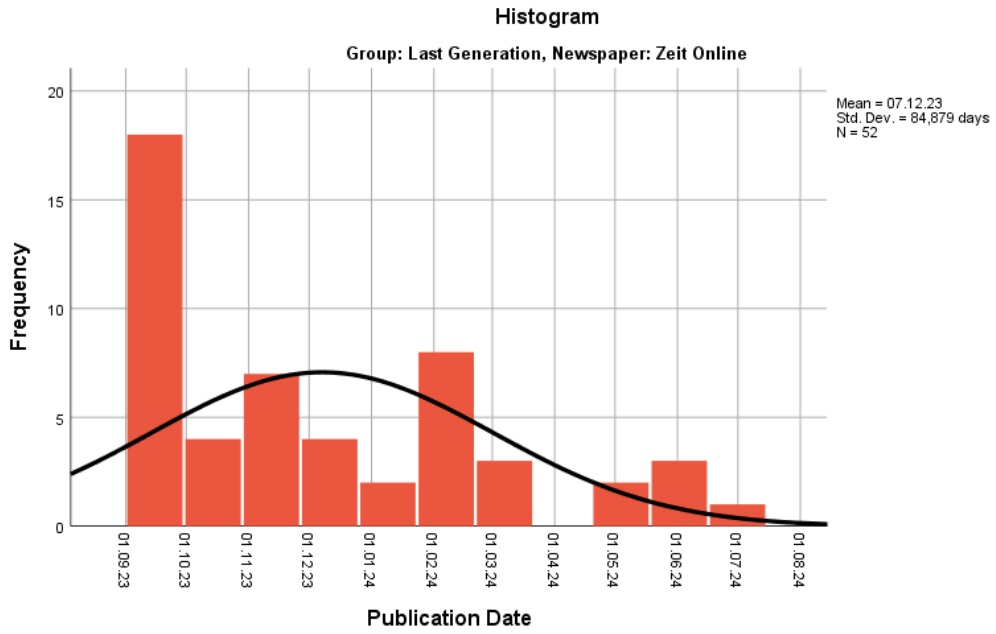


Figure 6

Distribution of Articles About Last Generation in taz Over Time

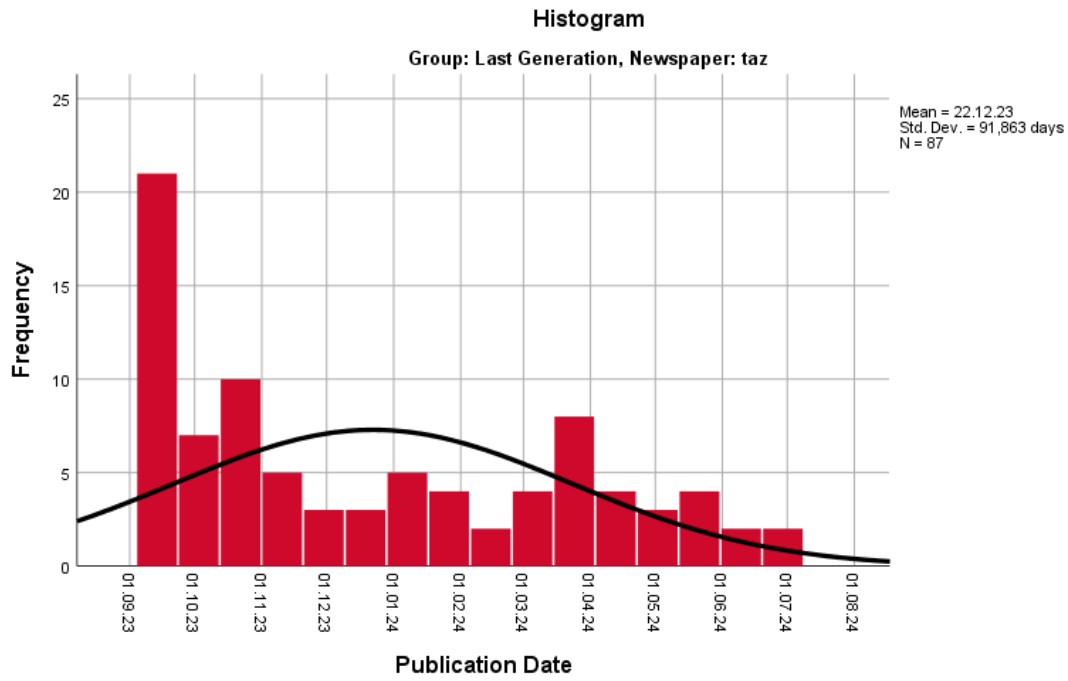


Figure 7

Mean Article Length by Text Type: FFF & LG Across FAZ, Zeit Online, and taz

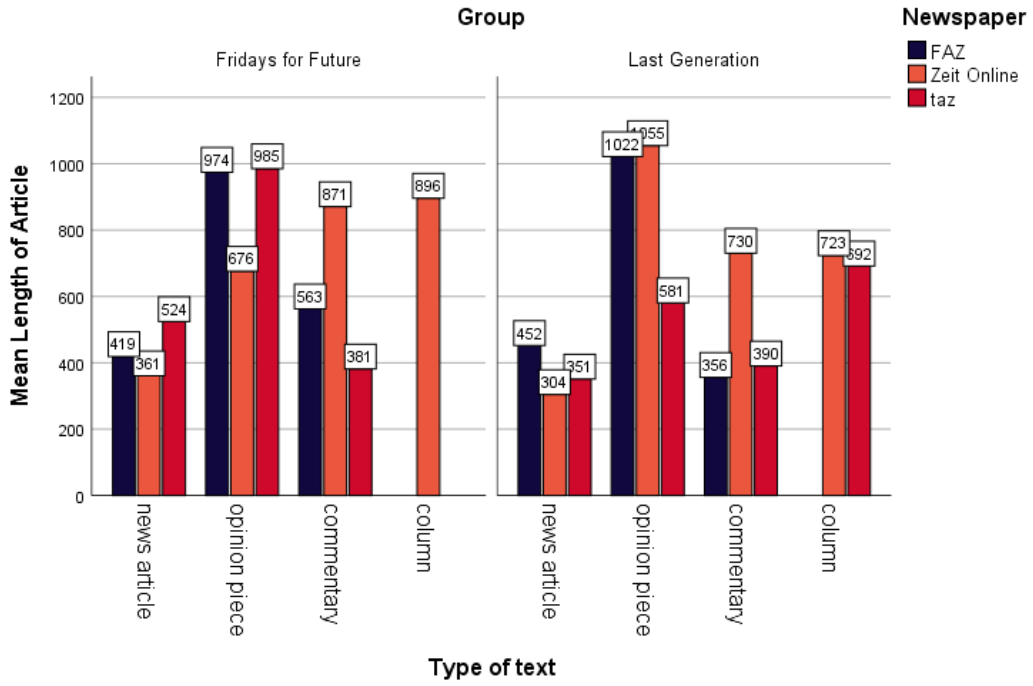


Figure 8

Emotions Present in Posts by Fridays for Future and Last Generation

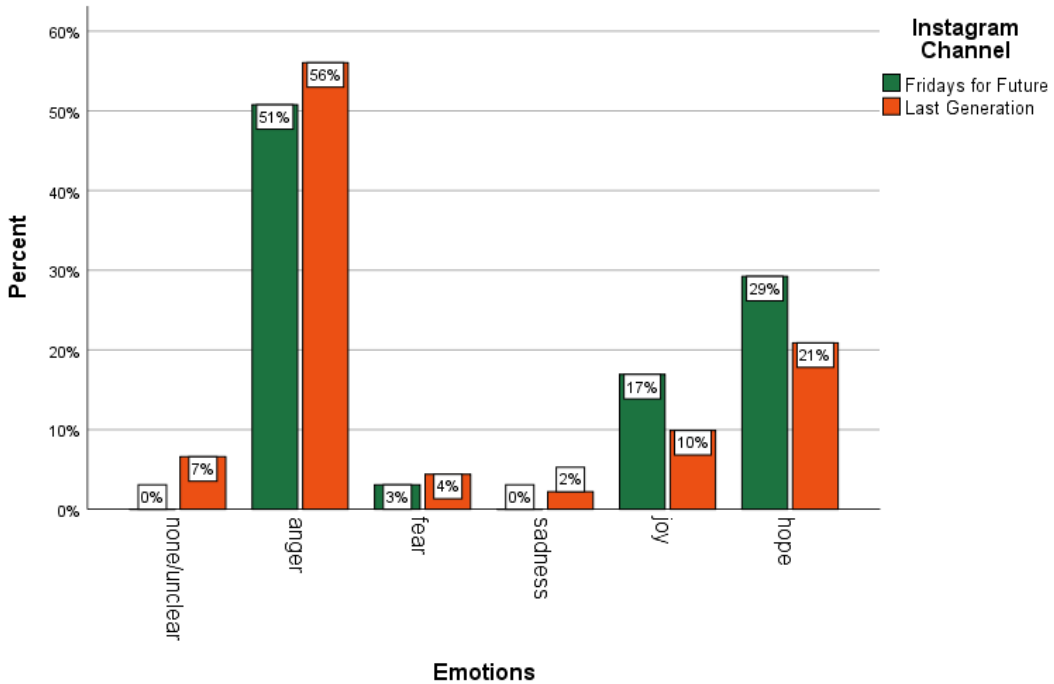


Figure 9

Prognostic Variables Used by Fridays for Future and Last Generation

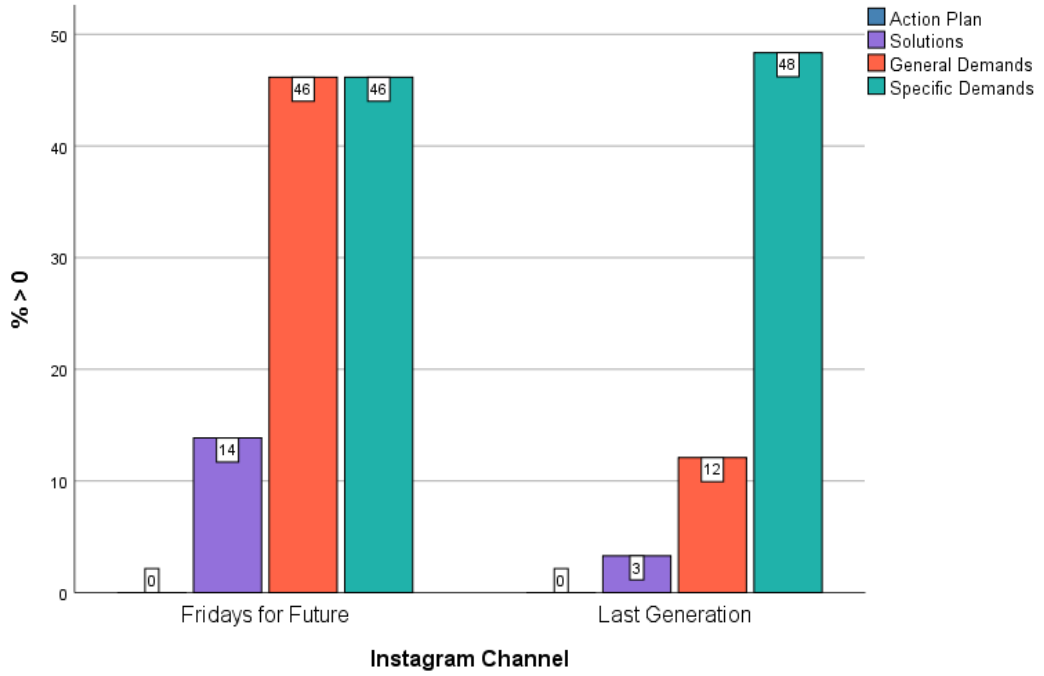


Figure 10

Visual Elements in Posts by Fridays for Future and Last Generation

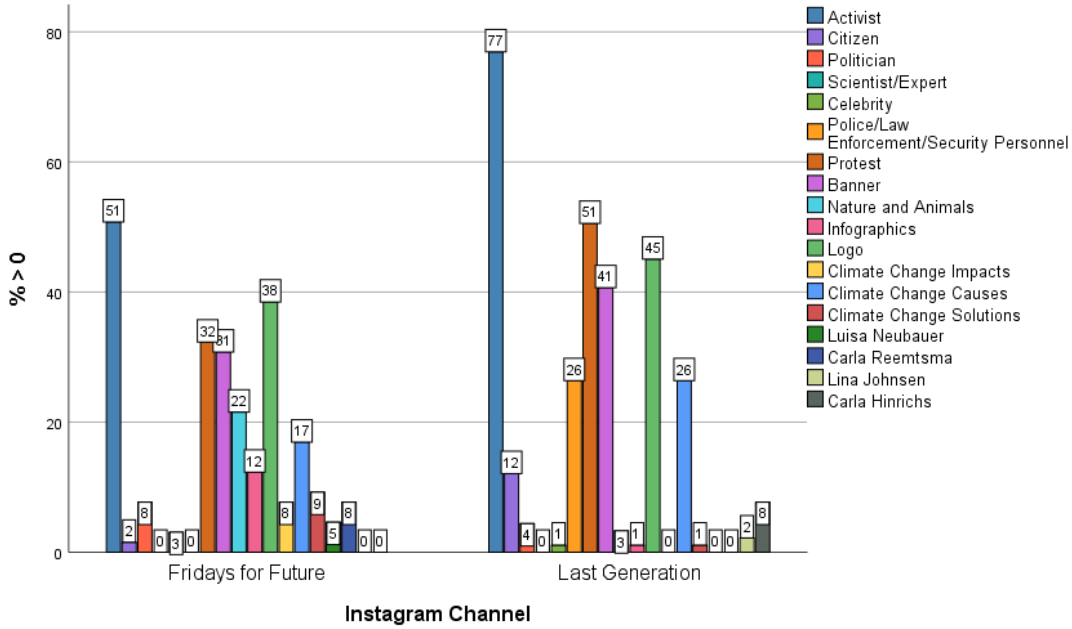


Figure 11

Subject of Articles Covering Fridays for Future in FAZ, Zeit Online and taz

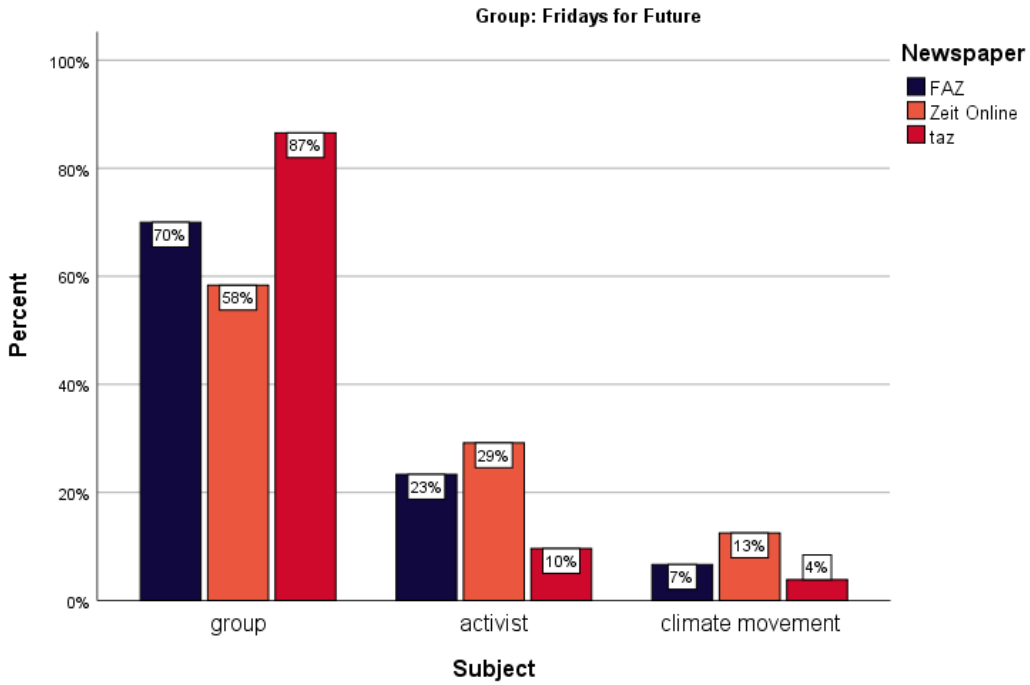
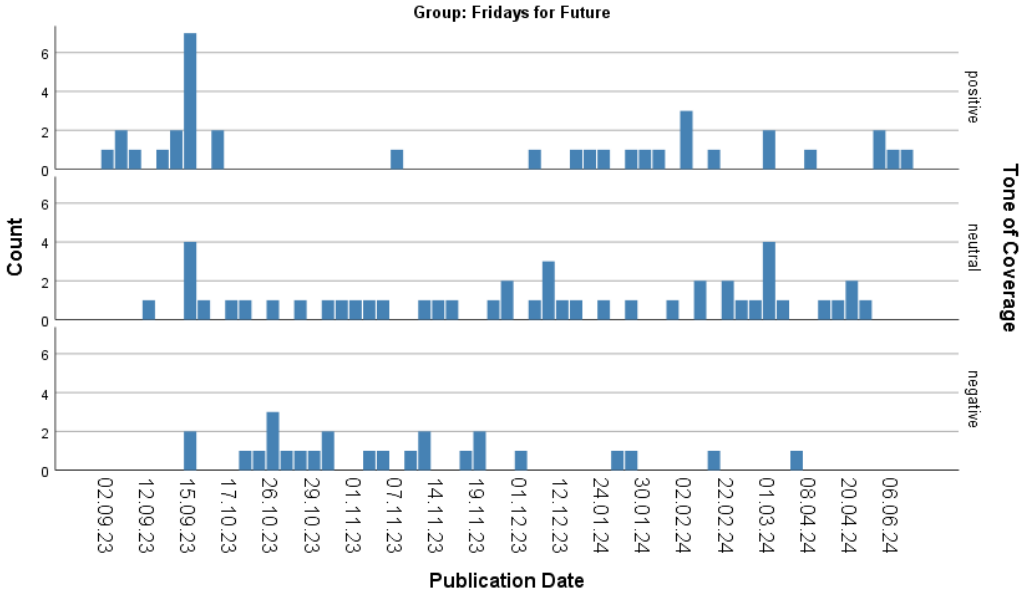


Figure 12

Tone of Media Coverage of Fridays for Future Over Time



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I hereby declare that the thesis submitted is my own unaided work. All direct or indirect sources used are acknowledged as references. I am aware that the thesis in digital form can be examined for the use of unauthorised aid and in order to determine whether the thesis as a whole or parts incorporated in it may be deemed as plagiarism. For the comparison of my work with existing sources I agree that it shall be entered in a database where it shall also remain after examination, to enable comparison with future theses submitted. Further rights of reproduction and usage, however, are not granted here. This paper was not previously presented to another examination board and has not been published.

Padova, 17 November 2024