







Convergence in action: framing the climate crisis at the 2021 Pre-COP counter-summit in Milan

Giuseppe Cugnata ^a, Jessica Cuel ^b, Niccolò Bertuzzi ^c,
Louisa Parks ^d and Lorenzo Zamponi ^a

^aFaculty of Political and Social Sciences, Scuola Normale Superiore, Firenze, Italy; ^bSchool of International Studies, University of Trento, Trento, Italy; ^cDepartment of Humanities, Social Sciences and Cultural Industries, University of Parma, Parma, Italy; ^dSchool of International Studies, Department of Sociology and Social Research, University of Trento, Trento, Italy

ABSTRACT

With the emergence of Fridays for Future and Extinction Rebellion, youth climate activism has attracted increasing attention. Climate strikes are part of a long trajectory of mobilizations for climate justice, rooted in global justice and environmental struggles. Although research on social movements has analyzed differences and continuities within these, there have been few systematic comparisons between youth climate strikes and ‘traditional’ climate justice marches. Our paper contributes to fill this gap. We focus on the framing of climate change in two different protest actions that took place in Milan, Italy, during the Pre-COP26 of the United Nations Framework Convention on Climate Change in 2021: a climate strike by Fridays for Future, and a ‘traditional’ climate justice march by a wide coalition of actors. Relying on protest surveys and qualitative interviews, we discuss differences, similarities, and spaces for convergence among activists in these different fora, focusing on the framing of climate change, and on the meanings attached to ‘system change’.



ARTICLE HISTORY Received 13 September 2023; Accepted 23 May 2024


Edited by Yannis Tsirbas

KEYWORDS climate movement; Fridays for Future; protest; climate justice; frames; system change

Introduction

The last few years have seen the emergence of a new wave of climate activism (de Moor et al. 2021). Young people have demanded immediate and radical political action on climate change, notably through the youth climate strikes organized by Fridays for Future (FFF) (Wahlström et al.

CONTACT Giuseppe Cugnata  giuseppe.cugnata@sns.it  Scuola Normale Superiore, Palazzo Strozzi, 5° piano, Piazza Strozzi, 50123 Firenze, Italy

 Supplemental data for this article can be accessed online at <https://doi.org/10.1080/14616696.2024.2362151>.

© 2024 European Sociological Association

2019; de Moor et al. 2020) and the civil disobedience campaign launched by Extinction Rebellion (XR) and the A22 Network (Doherty et al. 2020; Kinyon et al. 2023).

Yet climate activism did not start from scratch the day Greta Thunberg decided to stop going to school. Climate marches adopting the 'climate justice' frame have been taking place since the 2000s, gaining strength after the 2009 Copenhagen COP (Wahlström et al. 2013; Schlosberg and Collins 2014). The 'climate justice' turn within environmental and climate movements has been described as resulting from processes where more formally organized and advocacy-oriented groups, previously close to the processes of global environmental governance of the United Nations and the Framework Convention on Climate Change (UNFCCC) in particular, moved to connect and rededicate themselves to justice-related environmental issues and 'grassroots' strategies (Agyeman et al. 2016). This turn is understood as fueled by disappointment in progress towards environmental goals and a perceived inattention to the underlying social justice causes and consequences of the climate crisis (Schlosberg and Collins 2014; de Moor 2018).

Climate marches did exist before climate strikes therefore, although previous waves did not see the breadth of appeal and mobilizing capacity of the latest. How 'new' is this new wave of climate action, then? To what extent does the capacity of climate strikes to go beyond the mobilization of traditional radical milieus imply 'watering down' prognostic frames (Snow and Benford 1988), i.e. the solutions proposed to stop the climate crisis? Research has shown both continuity and change through innovations. Although the 'system change not climate change' slogan has passed from the climate marches to the climate strikes, there is clear evidence of different frames about how the movement should engage with the UNFCCC and demand states and international actors to address the planetary crisis or, conversely, turn towards more direct action strategies and demand a different, non-capitalist, system (de Moor et al. 2021). Climate strikes seem to be a context for the popularization of ideas of system change in broader milieus than those traditionally involved in radical climate action, but this broadening appeal has also been seen as an occasion to depoliticize the climate issue, or at least to approach it in a post-political fashion (Kenis 2019).

A comparison and a distinction between the climate marches of the phase prior to 2018 and the climate strikes that started that year has already been conducted by Rainsford and Saunders (2021), who use protest survey data collected in climate marches (in 2009 and 2015)

and in climate strikes (in 2019) in the UK to point out the differences between adult-dominated and youth-dominated demonstrations in their capacity to mobilize young people. De Moor and colleagues make a similar distinction, noting that the climate strikes of FFF and the civil disobedience actions of XR ‘have been popularly interpreted as representing a “new climate activism”’ (2021: 621). They investigate initial differences in participants, tactics, targets, and frames between these two phases of climate activism based on data from climate strikes in 2019, finding elements of both continuity and change. Climate strikes were found to include many first-time protesters, but otherwise to resemble the make-up of previous actions. They also focused more on demands for state-led action, as compared to a previous focus on international bodies, and to use a broader prognostic frame of ‘listen to the science’ in conjunction with frames calling for system change. This finding leads the authors to underline that further research on how framing has evolved in climate activism is needed, since ‘long-term mobilization and political impact might require FFF and XR to, over time, develop stronger visions for the future’ (de Moor et al. 2021: 624). Building on this literature and pointing out that what we will refer to as ‘traditional’ climate marches driven by the actors of the earlier phase still exist, even in a context dominated by ‘new’ climate strikes, the article investigates framing and the possible divisions or convergence in marches organized by groups belonging to these two phases vis-à-vis the notion of ‘system change’. We investigate the frames expressed by participants in a youth climate strike organized by FFF, typical of the latest wave of climate action, and those participating in a traditional climate march organized by a wide coalition of actors. Can different frames be identified? Or has there been alignment, in particular around a system change frame? Does the dichotomy between ‘traditional’ climate marches and ‘new’ climate strikes persist, and account for internal divisions in the movement vis-à-vis system change?

We aim to answer these questions by drawing on an original dataset composed of quantitative and qualitative data collected during two climate protest actions held during the 2021 pre-COP of the UNFCCC meeting in Milan, Italy, on two consecutive days, and organized by two different networks of climate and environmental organizations that correspond to the traditional, earlier phase of climate activism and the new phase around climate strikes. We adopt a two-step research design in which quantitative and qualitative methodologies serve different purposes. First, we conducted a quantitative

analysis on protest survey data to compare the frames of participants in the two protest events. Second, we interviewed activists from different groups that participated in both or either of the protest events to deepen our understandings of how they imagine system change with reference to climate justice. The quantitative analysis shows that differences in the framing of climate change between individual participants in the two protest events are limited, highlighting a significant process of convergence. Qualitative interviews show that, despite sharing a common core, some differences do emerge in the frames and the meanings adopted by the actors, but they are not in line with the division between ‘new’ climate strikes and ‘traditional’ climate justice marches. Distinctions about the meaning of climate justice and system change do exist amongst participants in climate actions, but they are transversal to the types of protest events in which they participate. Our data provide a contribution to scholarly research about continuities and innovations in the framing of climate change and spaces for convergence in the environmental movement, as well as imagined solutions to our current predicament.

Framing the climate crisis across different waves of environmental mobilization

Studying activists’ collective action frames has been one of the main avenues in research on social movements for at least three decades (Snow and Benford 1988; Benford and Snow 2000; Snow et al. 2019). The core purposes of collective action frames are to identify an issue as a problem and attribute responsibility (diagnostic framing), to propose solutions (prognostic framing) and to mobilize support (motivational framing). In social movement studies (SMS), frames have been defined as ‘innovative articulations and elaborations of existing ideologies or sets of beliefs and ideas [that] function as extensions of or antidotes to them’ (Snow et al. 2019: 401). While the scientific community is clear in defining anthropogenic climate change as a tangible and real problem (Dessler and Parson 2019), social actors interpret its scope, urgency, root causes, potential solutions and those to blame in different ways. As Dryzek underlined in his classic work on environmental political discourses, knowledge of the existence of environmental problems is relatively recent and ideas about all these features are not yet fixed for many political actors, including social movements, since various discourses appear reasonable (2005).

The choice of possible solutions to the climate crisis is thus a space for contestation (Dietz 2014). International climate governance has coalesced around sustainable development as a prognostic frame to address both the climate crisis and the ecological crisis more generally. Sustainable development was, at least in its original ‘on-paper’ definition, concerned with environmental protection, social justice, and economic growth (Dryzek 2005), and represented a compromise to include concerns raised by both developed and developing countries during multilateral negotiations. The Anthropocene is considered as an overarching diagnostic frame: humanity, understood as a single entity, is responsible for the ecological and climate crisis (Steffen et al. 2007). The solution – the prognosis of sustainable development – is seen in the maintenance of the living standards of the average Western human being, reproducing an economic model based on growth and consumption while respecting the principle of sustainable yield and, supposedly, justice issues too (Hickel and Kallis 2020).

In more recent decades and in line with the more protest-oriented phase of the environmental movement, a different frame in which the concept of climate justice assumes a key position has emerged (Perkins 2019). Here, the solution to crisis lies not only in mitigation and/or adaptation to the climate crisis, but also in the identification of culprits and the attribution of specific responsibilities (Caney 2014). This prognosis refers to an alternative diagnosis of the climate problem articulated by Moore (2016) using the term ‘Capitalocene’. It is not all of humanity but the capitalist development model and its world-ecology that led to the climate crisis. In many ways, climate justice can be seen as a reaction to the importance attributed to the economic pillar of sustainable development by states and international organizations (e.g. della Porta and Parks 2014), and in that sense as providing substance to calls for system change. The concepts of environmental and climate justice are also at the core of political ecology approaches: the lines of power highlighted by climate justice activists concern not only the global South and North, but also class and income inequalities within single countries, in addition to cleavages related to age, gender and ethnicity (Martinez-Alier 2003).

Climate justice has also emerged as a potential new ‘master frame’ for the environmental movement, acquiring a new level of importance despite being present in parts of the movement for a long time (Martinez-Alier et al. 2014). In SMS, master frames are unifying frames that are seen as bringing together previously separate struggles and groups

by underlining their concerns as linked to higher order ideas (Snow et al. 2019). The emergence of climate justice as a master frame has been linked with the mobilizations around COP15 of the UNFCCC in Copenhagen in 2009 (Wahlström et al. 2013; Schlosberg and Collins 2014). Around this time, convergence among the frames of climatization of what remained of the global justice movement (GJM, see Della Porta et al. 2015) and the framings of indigenous peoples' movements and grassroots movements against environmental racism (Agyeman et al. 2016) unfolded (della Porta and Parks 2014). After Copenhagen, the conciliatory forms of political pressure that characterized the previous phase of environmental activism came to be more consistently accompanied by radical actions and massive protests at summits, including COP 21 of the UNFCCC in Paris (Hadden 2015; de Moor 2018). From 2009 to 2018, climate marches, organized by coalitions of NGOs and movement actors, often around large transnational events, have called for system change in line with frames of climate justice and have been at the core of environmental mobilization in Europe (Wahlström et al. 2013; de Moor et al. 2021).

A new wave of mobilization emerged in 2018 with the school strikes initiated by Swedish activist Greta Thunberg. A series of global climate strikes began from March 2019, involving millions of young protesters across the world. Research has already focused on the continuities between this wave of climate action and the previous one. On the one hand, climate strikes have mobilized a historically large number of people, in particular school students and those without prior activist experience, have targeted local and national governments instead of transnational institutions, and have adopted (especially in their first phase), the 'listen to the science' prognostic frame (de Moor et al. 2021). On the other hand, the climate justice frame based on the idea of 'system change' has far from disappeared. From COP24 of the UNFCCC in Katowice (2018) a new scenario emerged, opening new discursive opportunity structures (Svensson and Wahlström 2021). During COP 24 Greta Thunberg was invited to speak, delivering the first speech that went viral on social media. Along with other public interventions by Thunberg, this contributed to the ongoing emergence of the climate justice master frame, pushing large international NGOs to further (re)frame their positions (Cassegård and Thörn 2017).

To what extent were the links between the climate justice frame and idea of system change passed on to the new wave of climate action that started in 2019? Research on this topic has produced partially

contradictory outcomes. Based on data from a large protest survey conducted in 19 cities around the world during the FFF's global climate strikes of March and September 2019, Svensson and Wahlström (2021) suggest a redefinition of the institutional vs. anti-institutional cleavage (i.e. the call to respect and implement the current system vs. the system change frame) as a top-down vs. bottom-up contraposition. In their analysis, calling for system change emerges as more likely to be articulated by middle-aged respondents than by young people, and this in a general picture where top-down change within the current system is identified as the most widely shared prognostic frame. In relation to generational issues, literature on youth climate activism has found that the focus on Western forms of activism tends to prioritize intergenerational justice and to downplay, or not take sufficiently into consideration, contemporary experiences of climate injustice, especially in the Global South (Nairn et al. 2021; Piispa and Kiilakoski 2022). Other studies have shown that new climate activists tend to rely on urgency frames to consolidate and motivate collective action (de Moor et al. 2020). The use of these frames represents a shift in the symbolic construction of climate/ecological action: whereas traditional climate movements combined urgency and optimism, the new climate movement tends to emphasize catastrophe and emergency (Doherty et al. 2020; Buzogány and Scherhauser 2022). This narrative of urgency brings a 'terrestrial' perspective back in (Knops 2021): the climate crisis is not just the crisis of the modern development model, which can be viewed in a detached way. Rather, it makes the injustices and visceral suffering of the populations and nonhuman species affected by the crisis visible. System change has emerged as a pivotal concept in this prognostic framework (Gach 2019). According to Bowman (2019), climate activists identify climate inaction as part of the same systemic problem that produces different forms of injustice, violence, and discrimination. Thus, though a general view does emerge where groups' frames of different types are equated with demands for more radical, i.e. systemic change, scholarship taking a closer look at diagnostic, prognostic and motivational frames reveals a more complicated mix.

Does this dynamic apply to the 'traditional' climate marches and to the 'new' climate strikes to the same extent? Does the broader appeal of the most recent wave of mobilization imply watering down the idea of climate justice based on the need for system change? Or has the previous wave of mobilization spilled over into the most recent where framing is concerned? In the only existing comparative study between 'traditional'

climate marches and ‘new’ climate strikes, Rainsford and Saunders (2021) find that participating in one kind of protest or the other depends on structural and attitudinal factors, such as having participated in a previous demonstration, or feeling anger about climate change. Whether participation in one type of demonstration or another is associated with certain frames related to the climate crisis has not yet been explored. The ‘traditional’ climate marches of the phase before 2018, characterized as presented above (coalitional structure, mainly adult composition, transnational targets), have not disappeared, though they attract less attention than before in a context dominated by ‘new’ climate strikes characterized by individual participation, youth mobilization and local or national targets. This provides the possibility to observe to what extent two forms of action that were born in different contexts and that are linked to different waves of mobilization can converge in terms of framing.

The protest events organized around the pre-COP in Milan in 2021 provide a chance to investigate these issues. Though the Covid-19 pandemic affected protest movements worldwide, including climate movements (Alteri et al. 2021; Bertuzzi et al. 2022), the protests held during the 2021 pre-COP in Milan saw considerable participation and represented an important appointment at the European and international levels. We therefore analyze frames amongst participants in two protest events on successive days: a student climate strike organized by FFF and a climate march organized by a wide coalition of grassroots socio-environmental groups. The student climate strike protests are regarded as representative of the ‘new’ protesters, while participants from the climate march are identified as the ‘traditional’ protesters. Our goal is to investigate whether protestors’ frames overlap or are in tension, and to advance our knowledge of the content of these frames. This may also contribute to understanding where spaces for the emergence of a more unified climate justice movement are. We describe the context of the marches in the next section, before presenting our methods, results, and discussion.

The pre-COP and youth-COP week in Milan

From 30 September to 2 October 2021 the city of Milan hosted the pre-COP, a preliminary meeting in the run-up to the 26th COP of the UNFCCC in Glasgow. Immediately beforehand (28–29 September) the city hosted the Youth4Climate event. During the pre-COP in Milan,

representatives of 50 states met to discuss various issues, including the need to comply with the Paris Agreement and complete its 'rulebook', the need to improve adaptation policies, and the prospect of carbon neutrality by 2050. The Youth4Climate event was the first summit dedicated to young people organized in conjunction with the Pre-COP. It was attended by 400 delegates from different countries and produced a document that was presented at the COP26 in Glasgow. During the official UN summits, a series of counter-events were organized by climate movements, including two protests. On Friday 1 October, FFF Italia organized a climate strike with the presence of some international movement leaders, including Greta Thunberg and Vanessa Nakate. A second demonstration was organized on Saturday 2 October: a climate march with the participation of environmental and social organizations, political groups, and social centers. Both events saw large turnouts and occupied the streets of Milan for several hours. 50,000 participants marched on Friday according to the organizers (7,000 according to the police); 10,000 participants according to organizers on Saturday (5,000 according to the police). Alongside these two protest events, numerous initiatives took place in Milan during the pre-COP/Youth4Climate. These included conferences in different areas of the city and direct actions aimed at symbols of (green) capitalism. Direct actions were mainly carried out by activists who had organized a Climate Camp in the north-west area of Milan during the summit. They organized as the Climate Justice Platform, which gathered civil disobedience-oriented climate organizations such as XR, direct action-oriented organizations such as Rise Up 4 Climate Justice, 'cultural' movements such as Degrowth, students' collectives, local social centers, LULU movements such as the *No Tav* movement, and other organizations focusing on topics related to environmental and social justice. An 'Eco-Social Forum' was also underway at the same time, organized by the Climate Open Platform, coordinated by FFF, and supported by student unions such as the *Rete della Conoscenza*, workers' unions such as the CGIL, environmental organizations such as Legambiente, and others belonging to the Italian GJM constellation. Both platforms converged in the October 2nd demonstration, while the October 1st demonstration was organized by FFF.

Data and methods

To investigate frames at protest events around the Milan pre-COP/Youth4Climate, we draw on data collected in two phases. The first

involved the collection of quantitative data during the two demonstrations that took place on 1 and 2 October. Both events were peaceful and large enough to allow the use of a protest survey, a methodology for surveying individuals participating in protest events (Andretta and della Porta 2014). This survey gathered information about the different social characteristics of participants, as well as their organizational ties, or lack thereof, thus capturing both ‘occasional’ and more committed activists.

A group of interviewers collected the e-mail addresses of protesters during the two protest events.¹ They were then sent a self-administered online questionnaire through LimeSurvey. This allowed us to maximize the ratio between time and the number of respondents, and to broaden the number of participants (Mosca 2014). We received 734 questionnaires (288 for the 1 October ‘new climate strike’ and 446 for the 2 October ‘traditional climate march’, see Table A1, Appendix).² We then identified three groups within the sample: climate strikers ($n = 198$), climate march participants ($n = 329$) and protesters taking part in both ($n = 207$).

A face-to-face micro-questionnaire was also administered *in situ* for every 5 e-mail addresses collected. It contained questions on socio-demographic information (gender, age, education level, occupation) and political behavior (previous participation in climate protests, individual participation, left-right self-positioning). The comparison between the face-to-face micro-questionnaires and the online questionnaires suggests that an age effect is in place for both online samples: younger age groups (14–18) tend to be under-represented among online respondents compared to the face-to-face sample, while high school students and respondents with a lower secondary degree are under-represented among online respondents.³ Other minor differences between the online and face-to-face sample exist, but are marginal (see Note A1, Appendix).

¹Interviewers received instructions and training for email address collection. They were deployed at several points along the march, moving from its end to the head, and from right to left and vice-versa in order to cover the whole. Interviewees collected email addresses at the beginning, during and at the end of the protests. All respondents were informed about the objectives of the research before providing their email address and gave their consent to answer the online survey. Minors under the age of 14 were excluded from the survey, in accordance with Italian law (D.Lgs. n. 196/2003 <http://www.privacy.it/archivio/privacycode-en.html>). All email addresses were encrypted and stored in password-secured devices. Responses were anonymized to make it impossible to trace a respondent from the e-mail address and were stored in password-secured devices.

²The replication package for reproducing all analyses in Stata 14 is available: DOI <https://zenodo.org/records/11196538>.

³This is however a frequent problem related to the refusal bias in protest surveys (Walgrave *et al.* 2016).

The second phase of data collection took place in December 2021, leaving sufficient distance from COP26 in Glasgow, and comprised 10 semi-structured interviews⁴ with key activists from the organizations belonging to both the Climate Open Platform and the Climate Justice Platform. Semi-structured interviews are often used in SMS to examine the motivations and beliefs of protesters and to clarify the meanings of their actions and their understandings of the social world (della Porta 2014). The groups chosen for the interviews were strategically selected according to their centrality in the difference protests. In addition to FFF and XR, we included politically significant actors and local organizers involved in the counter-summit (see Appendix Table A2 for a group list and acronyms). The interviews allowed us to capture, deepen, and compare information on the frames expressed by organizations about their perceptions of the climate crisis, their understandings of its causes, and their opinions on current solutions and solutions under discussion.

Quantitative analysis: a relative convergence

In the first part of the quantitative analysis we describe the diagnostic frames protesters use to attribute responsibility for the climate crisis, their prognostic frames about changes needed to address it, and the motivational frames that drive them to act. We show that the frames are generally shared by the respondents, but some distinctions emerge. In the second part, we explore whether the adoption of certain frames is associated with taking part in one protest or the other, or both.

As discussed earlier, the more recent climate protests of the FFF ‘wave’ tended to demand action from governments. This translated into a targeting of ‘politicians’ as responsible for climate inaction, for example as expressed in the Lausanne Climate Declaration, a joint statement drafted and signed by 400 FFF activists in 2019 which states that: ‘Politicians are ignoring the emergency’.⁵ Research on climate activists confirms this diagnostic frame: ‘FFF and XR attribute blame to politicians, who have remained too passive in tackling global warming’ (de Moor et al. 2021: 623). However, it is unclear to which institutional level this responsibility is attributed. To shed light on this, we measured

⁴Regarding qualitative interviews, respondents were asked to provide explicit approval to be interviewed after reading the informed consent. All notes and recordings were stored in password-secured devices. The participants’ right to confidentiality was guaranteed during all stages of the research and we did not identify any risks from participating in this study.

⁵See <https://smileforfuture.eu/results/>.

the attribution of responsibility for solving the climate crisis using a categorical variable with multiple-choice options. The question posed was: ‘Where should the main responsibility for resolving problems related to climate change questions be?’. Respondents could choose the international level (e.g. UNFCCC); the national level (State governments); the local or regional level (subnational authorities); or a combination.

No relevant distinction emerges between the protesters participating in the ‘traditional’ climate march, the ‘new’ climate strike, or both protest events when looking at the average levels of attribution of responsibility (Figure 1). Most respondents in the three sub-samples consider that responsibility for resolving the crisis should lie at the ‘International’ level, without any significant difference between participants in ‘new’ or ‘traditional’ protest events, or those participating in both. This suggests a common understanding between the different components of the current climate movement with respect to who should be held responsible for climate action. We find some slightly more significant differences related to the attribution of responsibility at the ‘National’, ‘Local’ and ‘Individual’ levels (‘new’ climate strikers attribute less responsibility to these levels than ‘traditional’ climate protesters or protesters who

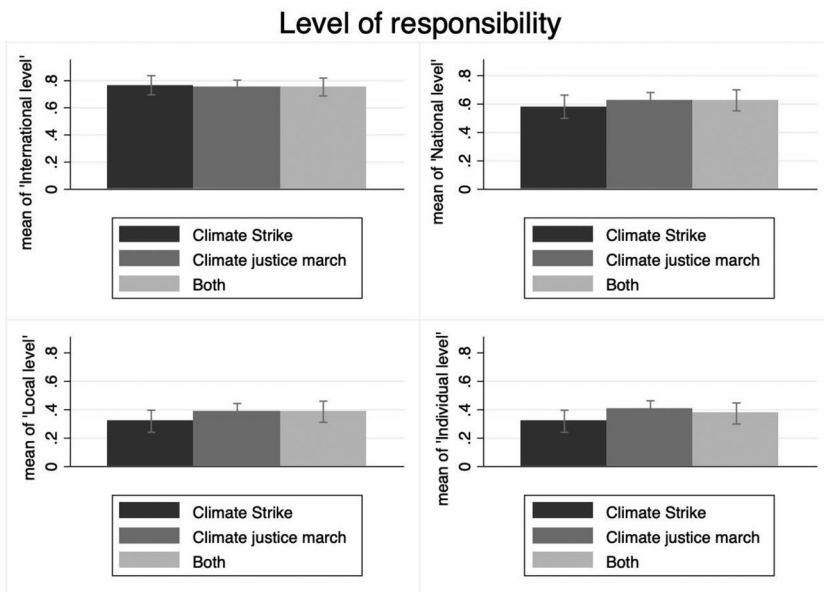


Figure 1. Diagnostic frame. Where should the main responsibility for resolving problems related to climate change questions be? ($N = 572$; 0 = no, 1 = yes; error bars represent 95% CI).

participated in both demonstrations). This suggests that while in general terms all the participants in different demonstrations attribute responsibility for tackling the climate crisis to the same levels, the ‘traditional’ climate protesters and those participating in both protests see this responsibility as shared between multiple levels to a greater extent than ‘new’ climate strikers.

Overall, it is the similarities between the two protest events that emerge when frames about who should be responsible for action are examined. Another clear question discussed in the literature concerns societal transformation or system change as the preferred method for tackling the crisis as opposed to acting through existing institutions.

To examine this in more detail, we asked: ‘In your opinion, what kinds of changes, if any, should be made to governance systems to help address problems related to climate change?’ Possible answers were: 1. We need a radically different socio-political system (system change); 2. We need to reform aspects of the existing system of governance (Reform the system); 3. We have the right rules already but they need to be properly applied (Improve implementation); 4. We don’t need to change governance systems, just the way we live (No need to change); 5. Other.

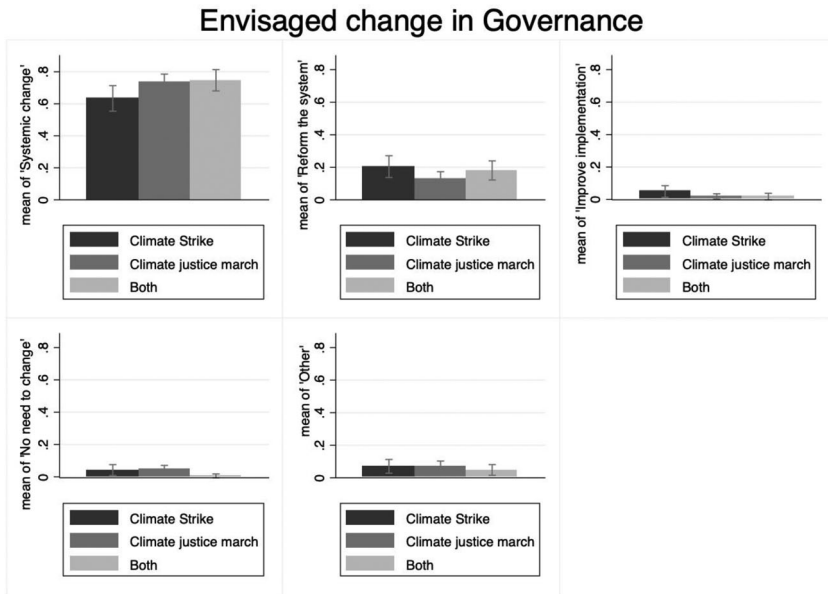


Figure 2. Prognostic frame. In your opinion, what kinds of changes, if any, should be made to governance systems to help address problems related to climate change? ($N = 573$; 0 = no, 1 = yes; error bars represent 95% CI).

Most respondents (over 60 percent in the three sub-samples) expressed the belief that systemic change is needed to address climate change (Figure 2). This result challenges ideas discussed earlier about the differences between recent, youth-led protests and those connected with ‘traditional’ climate justice struggles. There is a suggestion that the systemic change option is chosen somewhat more frequently by participants in both demonstrations and ‘traditional’ climate protesters compared to the ‘new’ climate strikers, yet the difference is not as marked as might be understood from the current literature. The difference could also be associated with socio-demographic characteristics, since a correlation emerges between age and calls for change in the governance system (Figures A1 and A2, Appendix) among participants in the climate strike. Young climate strikers tend to be less radical than their older counterparts, while no differences by age group emerge in the climate justice march sample. Our data thus suggest that calls for systemic change to tackle the climate emergency are more broadly shared than indicated in current literature, at least amongst protestors at the pre-COP/Youth4-Climature events in Milan.

Finally, we focused on motivational frames to reflect on the question of urgency highlighted in previous studies. Fisher (2016) distinguishes four main reasons why young people mobilize in relation to climate change: individual injustice (I won’t be able to have a ‘good life’, have children etc. because of the climate crisis); intergenerational injustice (my generation will suffer the consequences of climate change because of former generations’ inaction); social injustices (lots of people will/are already suffering/dying because of climate change); and commitment to the protection of nature/the non-human world. We used the same categories in our study. Specifically, we asked: ‘Of the following, which best describes the main reason for your activism on climate change?’. We asked respondents to rank these motivations.

Our results show that despite the difference between the ‘new’ climate strikers and the ‘traditional’ climate protesters, the motivation related to ‘social injustice’ is by far the strongest mobilizing frame for all respondents (over 50 percent in the three sub-samples), followed by ‘non-human world protection’, ‘intergenerational injustice’, and ‘individual injustice’ (Figure 3). The refusal to build collective identity on generational specificity has already been pointed out in the literature on the Italian environmental movement (Bertuzzi 2019). Among the climate strikers, a clear difference emerges between the youngest age group (14–18) and the rest of the sample (+18). Reasons related to non-human protection and

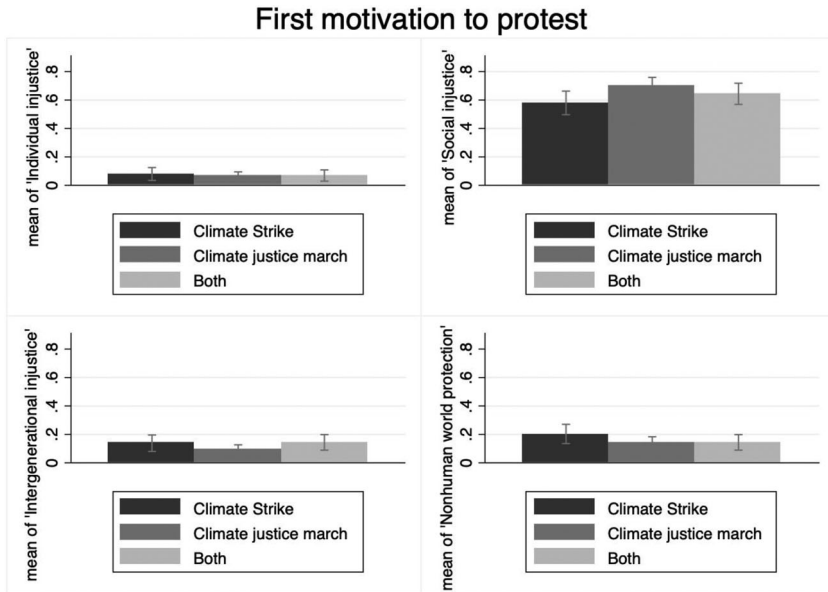


Figure 3. Motivational frame. Of the following, which best describes the main reason for your activism on climate change? ($N = 561$; 0 = no, 1 = yes; error bars represent 95% CI).

individual injustice are overrepresented amongst younger protesters compared to the sample average, though no similar effect is seen for the intergenerational variable (Figures A3 and A4, Appendix).

Once again the distribution of the frames reveals no substantial differences between the ‘new’ climate strikers, the ‘traditional’ climate protesters, and those who participate in both protests. Overall, the analysis reveals that for each frame analyzed one stands out, respectively: the international level for responsibility, systemic change as a solution, and social injustice as a reason for protesting. To explore this further, we created three dummy variables corresponding to these three frames. The first contrasts those who selected the ‘international’ level of responsibility with those who did not.⁶ The second contrasts those in favor of ‘systemic change’ with those favoring other types of change.⁷ The third contrasts those primarily motivated by ‘social injustice’ with those motivated by other reasons.⁸

We ran several logistic regression models using these new dummy variables as dependent variables (DVs). We used standard socio-

⁶0 = other levels of responsibility; 1 = international responsibility.

⁷0 = non-systemic change; 1 = systemic change.

⁸0 = other motivations; 1 = social injustice.

demographic variables (gender,⁹ age,¹⁰ self-identification with a class¹¹) as controls. Furthermore, following other studies on frames within the climate movement (Wahlström et al. 2013; Svensson and Wahlström 2021), we included additional control variables that could potentially influence frames. These variables encompassed organizational membership (student union/organization, trade union, climate organization and environmental organization¹²), not being affiliated to any organization,¹³ and political self-positioning.¹⁴ Participation in one or both protest events was used as the independent variable (IV).¹⁵

Table 1 summarizes the results of the regression models. Regarding the IV, no difference in chosen frames is associated with having participated in the climate justice march or in both demonstrations compared to participation in the climate strike: frames are similar across them all. As discussed, the components of the climate movement share similar frames related to the climate crisis and this appears relevant: while the study by Rainsford and Saunders (2021) highlights that participating in ‘new’ climate strikes or ‘traditional’ climate marches depends on structural and attitudinal variables, we found no significant difference in the frames that are shared within the movement. As concerns the control variables, gender does not have any significant effect on frames, while age is positively associated with selecting ‘social injustice’ over other motivations (model 3). Class also has marginal effects, the most relevant one being that declaring to belong to any class other than upper – or lower-middle class is negatively associated with selecting ‘social injustice’ compared to other motivations (model 3).

Regarding organizational membership, no variable has significant effects on frames. This is a relevant finding: being a member of an organization (any organization) has no effect on the attribution of responsibility to the

⁹1 = man (ref.); 2 = woman; 3 = non-binary.

¹⁰In years.

¹¹1 = upper class/upper-middle class (ref.), 2 = lower-middle class, 3 = other.

¹²We asked respondents to indicate in a multiple-choice question what type of organization they belonged to. Respondents were also asked to write the name of the organization. We then we “recoded” the open answers for the type of “environmental” organization, distinguishing between “climate organizations” (including Fridays for Future, Extinction Rebellion and local organizations that focus exclusively on climate issues) and “environmental organizations” (including Greenpeace, Legambiente, WWF, LIPU, and local organizations dealing with broad environmental issues). 0 = no student union/organization member; 1 = yes student union/organization member. 0 = no trade union member; 1 = yes trade union member. 0 = no climate organization member; 1 = yes climate organization member. 0 = no environmental organization member; 1 = yes environmental organization member.

¹³0 = member of another organization; 1 = not a member of any organization.

¹⁴1 = radical left (ref.), 2 = left, 3 = non-left.

¹⁵1 = climate strike (ref.), 2 = climate justice march, 3 = both protests. We provide a set of descriptive statistics with the variables used throughout (Table A3, Appendix).

Table 1. Determinants of frame selections. Logistic regression, results expressed in odds ratio.

Variables	(1) Odds ratio International Resp.	(2) Odds ratio System change	(3) Odds ratio Social injustice
<i>Male (ref.)</i>			
Female	1.230 (0.82–1.85)	0.995 (0.65–1.53)	1.399 (0.94–2.08)
Other	1.672 (0.52–5.34)	0.382 (0.14–1.07)	0.619 (0.24–1.62)
Age	0.828 (0.47–1.47)	1.740 (0.95–3.20)	1.918* (1.07–3.42)
<i>Upper-middle class (ref.)</i>			
Lower-middle class	0.689 (0.42–1.14)	0.693 (0.42–1.15)	0.864 (0.54–1.38)
Other class	0.662 (0.38–1.17)	0.686 (0.39–1.20)	0.412*** (0.24–0.69)
Student union/ org.	0.830 (0.40–1.70)	0.773 (0.35–1.69)	0.834 (0.43–1.63)
Trade union	1.777 (0.80–3.97)	0.950 (0.40–2.27)	0.657 (0.33–1.32)
Climate org.	0.848 (0.49–1.48)	1.028 (0.56–1.90)	0.793 (0.46–1.36)
Environmental org.	1.415 (0.74–2.71)	0.537 (0.28–1.03)	0.857 (0.46–1.59)
No affiliation	1.159 (0.72–1.88)	0.608 (0.36–1.02)	0.700 (0.44–1.13)
<i>Radical left (ref.)</i>			
Left-wing	0.581* (0.36–0.94)	0.143*** (0.08–0.27)	0.603* (0.38–0.95)
Non-leftist	0.483* (0.27–0.88)	0.073*** (0.04–0.15)	0.342*** (0.19–0.60)
<i>Climate strike (ref.)</i>			
Climate justice march	0.875 (0.52–1.48)	1.005 (0.60–1.69)	1.177 (0.72–1.93)
Both protests	0.867 (0.50–1.51)	1.061 (0.61–1.85)	1.014 (0.60–1.71)
Constant	10.141* (1.24–82.62)	4.115 (0.45–37.91)	0.496 (0.06–3.96)
Observations	572	573	561
Pseudo R2	0.0237	0.152	0.0839

Odds-ratios (Confidence intervals, low and high, at 95% confidence level).

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

‘international’ level, support for ‘systemic change’, or being motivated by ‘social injustice’. This means that the groups/associations that make up the constellation of the climate movement do not appear to promote frameworks that differ significantly from each other, nor does being a member of an organization as opposed to being unaffiliated. This result is supported by the qualitative analysis discussed in the next section, where we will try to scrutinize the aspects of this convergence in more depth.

Finally, political self-positioning anywhere other than the ‘radical left’ is negatively correlated with the dependent variable in each model. This means that attributing responsibility to the international level, being in

favor of systemic change, and being motivated to act by social injustice is strongly associated with identifying as a radical leftist. We can interpret this result as a double alignment: on the one hand, the most radical protesters find themselves associated with the most widespread frames in the movement; on the other the most widespread frames correspond to the most maximalist positions in terms of the level of responsibility (international), type of change needed (systemic change) and universality of the cause to act ('people are suffering').

Qualitative analysis: shades of system change

To deepen these initial findings about the frames of protesters at different events around the pre-COP in Milan, we use qualitative data to provide more in-depth discussions about where spaces of convergence and divergence exist in activists' frames. We are particularly interested in seeing how frames of climate justice are understood in more detail: does the convergence indicated by the quantitative data on individual participants also extend to the collective level of the organizations involved in the climate movement? Here we draw on semi-structured interviews conducted with ten key activists from the groups that organized the counter-summit. The selection of groups (and activists) to be interviewed was a reasoned choice, a common method in qualitative research (Flick 2022), including studies on social movements (della Porta 2014). Priority was given to groups central in climate movement debates at the international level in 2021 (such as FFF and XR); in addition to these, political actors (trade unions, political collectives) central to Italian militant debates on eco-social issues and local political actors involved in the organization process of the counter-summit were selected. The selection was not guided by a strict separation between the two events, since the climate strike was mainly organized by FFF Italia, while the climate justice march was co-organized by both networks of organizations present in Milan during the pre-COP: the Climate Open Platform (including FFF Italia) and the Climate Justice Platform. A list of the groups and the respective acronyms used in the following analysis is provided in the Appendix (Table A2).

Blame attribution: international institutions, national governments and big companies

Although we found that participants at the two demonstrations attribute responsibility to tackle climate action to the international level, this does

not imply an uncritical stance about international summits on climate change. On the contrary: all the interviewees were critical about the outcomes of the pre-COP and Youth4Climate (referring to the official summit rather than protests), defining them variously as a fiasco, and a ‘greenwashing and youthwashing’ operation that disappointed even their low expectations. In line with recent research (de Moor 2021), interviewees claimed that climate activists are placing less importance on UNFCCC COPs and accompanying events like the pre-COP as fora that can actually bring about change (Int1, FFF; Int4, RdC), pointing towards convergence around a more critical stance about multilateral institutions. Activists from the Climate Justice Platform were especially critical of the official pre-COP and Youth4Climate summits (though not the protests themselves). They accused the international climate arena of reproducing the same top-down, ineffective solutions proposed by neoliberal governance systems. As clarified in one interview: ‘the people who sit there are the expression of a world that does not have great solutions for this problem: they are there in function of a system that has made structural distortions’ (Int9, MDF). Other activists recognize UN fora as important occasions for protest because they provide visibility (Int3, LA). These reflections deepen the results emerging from the survey: the international level has responsibility to act, it is heavily criticized because it is seen as not acting enough or appropriately. Using the international stage to protest is a strategic choice: collective investment at the international level keeps the movement visible.

In line with their criticism of international climate fora, interviewees emphasize the political responsibility of national governments which they identify as guilty of causing the climate crisis because they have not taken concrete political decisions in line with the urgent and critical situations predicted by scientists, and because they persist in perpetuating a development model that serves the interests of polluting companies and fossil fuel industries. This chimes with the fact that more than half of the protesters we interviewed at the two demonstrations also attributed responsibility for action to the ‘National’ level. However, for some organizations, especially those affiliated to the Climate Justice Platform, skepticism about any real possibility for the current institutions of neoliberal democracy to resolve the crisis is strong. Nevertheless, some interviewees stress that pressuring politicians rather than corporations is a strategic choice, since industry will always act on the basis of economic interest while governments have the power to oblige companies to change their behavior through regulation (Int1, FFF). This adds nuance to previous

findings about the nationally-directed claims of the new wave of climate strike activism, linking them to the climate justice arguments attributing climate crisis to the capitalist development model. Moreover, in some cases interviewees even suggest dialogues with companies and private actors to try and push them in the 'right direction' (Int3, LA). In most cases, the responsibility for climate change is equally attributed to the private sector and large corporations. It is at the crossroads of fossil fuel industries, private investment funds and publicly guaranteed funds that some of the interviewees place the problem (Int6, RU).

Proposed solutions: multiple ways of interpreting systemic change

The activists interviewed have diverging opinions about what should be done to tackle the climate crisis. Although all the interviewees shared the idea of systemic change, they interpreted this in two ways. Some hold pessimistic opinions about the movement, and foresee a scenario where the movement will not achieve its goals and green capitalism will be implemented, which will only stave off the crisis. In this scenario the most useful thing the movement can do is to try and direct people's votes towards environmentally conscious parties (Int1, FFF). Other activists emphasize the need to 'open people's eyes' instead of continuing to try to influence politics, considered as unreceptive. Interviewees suggested that even the most moderate components of the climate movement were aware that seeking to influence politics was of little use (Int4, RdC). The need for system change is thus shared by these activists, but their optimism and thus their strategies differ. System change is also seen as meaning more than escaping capitalism: this is a necessary but not the final step according to all the organizations involved in the Climate Justice Platform. Some stress that abandoning capitalism does not automatically involve abandoning other forms of structural violence and dominion, such as patriarchy, extractivism, ethnocentrism, and anthropocentrism. Others are more optimistic, underlining renewable energy sources as a solution that will help build a different economic model based on social justice (Int3, LA). These more optimistic views are shared by those who belong to environmental organizations and trade unions, partially in line with what is suggested by the findings of the protest survey.

Confirming other recent research (Zamponi et al. 2022), system change is understood as essential at both the global and the individual level, which means a radical change in the current development model

(production systems, an end to the use of fossil fuels, reductions in consumption, wealth redistribution, economic degrowth/post-growth), as well as engaging in individual ecological practices that, if the movement keeps growing, will have a meaningful effect in economic, political and electoral terms (Int2, CGIL). Beyond a critical stance towards governments and businesses, more structural issues at the cultural level were also pointed out: for example, some identified the root of problems in the patriarchy (Int7, XR) or in the doctrine of infinite growth and the extractivist paradigm (Int9, MDF). This was strictly related to the role of technology. As expected, all interviewees trust in science, but feel that although technical innovations are useful, it is dangerous to believe the climate crisis will be resolved through technology alone, since this could have the effect of postponing or sabotaging necessary global reductions in consumption (Int1, FFF; Int2, CGIL, Int9, MDF). The role of science is discussed in a more complex fashion, highlighting the possible relations and conflicts of interest between economics, politics, lobbying activities and scientific research with reference to ‘philanthrocapitalism’ (understood as financial investments by influential individuals in business, seen by some social movements as overshadowing underlying capitalist interests through greenwashing campaigns – see e.g. Shiva 2022). Technology too is seen in a complex way, with a critical diagnostic frame of technology as a synonym for (ecological) modernization and a last-minute remedy that serves the goal of continuing business-as-usual (Int7, XR), but also through alternative prognostic framings such as convivial technologies (Int9, MDF), just technology which avoids the reproduction of socio-economic divides (Int10, CD), and technology as a common good (Int8, CEP). The interview data thus point to a range of different ideas connected with frames of system change, yet there seems to be space for convergence around an understanding of climate justice that links various social justice struggles to the call for system change, suggesting a space of convergence that is further developed in discussions of motivational frames.

Motivational frames: acting for climate justice

Striving for climate justice appears as a strong motivation for the activists interviewed. While the quantitative analysis led us to conclude that the more universalist motivation (‘people are suffering’) was the main reason for people to fight against the climate crisis, the interviews add complexity to this picture. For most of the interviewees, fighting for

climate justice means being aware that the crisis does not impact people in a uniform way, but follows patterns of existing relations of domination, something which clearly resonates with theoretical perspectives introduced by political ecology (Martinez-Alier 2003). A socio-economic asymmetry according to which the countries of the global South are described as the main victims of the crisis is mentioned by most of the interviewees (Int1, FFF; Int2, CGIL; Int3 LA, Int4, RdC; Int6, RU; Int9, MDF; Int10 CD). However, there are some nuances in the interviewees' understandings of social justice that may be linked to their affiliations to organizations with different primary focuses. Some interviewees emphasized the need to tackle climate injustices not only in global North–South terms, but also within local and national dimensions, such as marginalized groups in the global North (Int2, CGIL; Int3 LA; Int6, RU; Int9, MDF). Others referred to the intersectional dimension of the system of inequalities (Int1, FFF; Int4, RdC; Int7, XR): the people that suffer most from the climate emergency are those also marginalized due to poverty, gender, and other reasons (Int1, FFF; Int4, RdC; Int7, XR). Climate justice is also framed as the protection of workers' rights, under threat from both the climate crisis and the energy transition (Int2, CIGL).

Climate justice is thus basically framed in distributional terms and in line with the polluter pays principle. This requires system change because climate justice is 'Marxism integrated into environmentalism' (Int1, FFF). The interviewees recognize that different groups can have different ideas of climate justice. For example, FFF is critical about the understanding of climate justice introduced by XR which emphasizes direct democracy and citizens' assemblies, as this is seen as not appealing to 'normal people' (non-activists), while the same understanding is very much appreciated by RdC. Most respondents consider climate justice as a useful concept because it can act as a common paradigm shared with other social movements and social issues (Int10, CD). They share most of the definitions and meanings that this concept implies and believe that the frame is broadly diffused among (grassroots) climate organizations as well as individual activists, albeit more so with reference to diagnosis than prognosis. At the same time, they are aware that the concept is not new and was already a frame used in previous decades. As one interviewee points out: 'it is important that those who push for the 'new', even if they repeat things elaborated 40 years earlier, have arrived at these concepts on their own, that it is not just a repetition of keywords' (Int7, XR). A common element identified by interviewees among all the ideas related

to climate justice is that the interests of the people are opposite to and incompatible with those of fossil fuel industries (Int4, RdC). Interviewees also underlined that looking to the 'new' and the 'future' (two words much diffused in the rhetoric of both the Climate Open Platform and the Climate Justice Platform) does not mean forgetting the importance of collective action and everyday activities at the territorial level. An opinion shared by many interviewees and organizations, especially those in the Climate Justice Platform, is that 'the movement should focus on the process and not on the single event' (Int8, CEP). This comment appears to refer to FFF. The organizations making up the Climate Justice Platform are characterized by a strong presence at the local level, and by constant internal discussion, both of which they see as absent from FFF.

The climate movement should look for both conflict and consensus building. Conflict means [...] to stop production through direct actions and therefore damage to companies, to perform civil disobedience above all. Consensus means knowing territories and communities, and building networks in the territories. (Int6, RU)

This points to the importance of focusing on movement dynamics and preserving heterogeneity, a difficult balance to achieve but one that activists claim is necessary. In this, they frame democracy as a structural element of climate justice and claim that a climate justice movement should be based on internal democracy, plurality and continuous, locally-rooted action.

Conclusions

Like many social movements, the climate movement is traversed by internal currents and orientations that highlight its multifaceted composition. The new wave of climate strikes has revived a struggle that began a decade earlier with the Copenhagen climate justice mobilizations. Still, 'old' forms of climate action survive, providing a window to see how much convergence exists between different parts of a complex movement. Building on data collected at a climate strike and a 'traditional' climate justice march during the pre-COP/Youth4Climate in Milan in October 2021, we focused on the differences and similarities that characterize the interpretive frameworks in the current climate movement, with a focus on its Italian component. Quantitative analysis shows that broad similarities emerge between the two selected protest events. Regardless of the type of protest, respondents tend to attribute primary responsibility for

action on the climate crisis to the international level, support systemic change as the solution to the crisis, and are motivated to act because of societal injustice and people's suffering. However, some differences emerge when examining what prompts the adoption of these frames. As the age of protesters increases, so does the probability that they are motivated by social injustice to take action against climate change. The same goes when placing oneself outside the upper – and lower-middle classes. Self-positioning on the radical left increases the probability of support for the dominant frames in the analysis: international-level responsibility, system change as a solution, and social injustice as a motivation. Therefore, we can conclude that while no significant differences in framing appear between 'new' climate strikes and 'traditional' climate marches, framing the climate crisis in a certain way depends on certain socio-biographical and ideological characteristics for both protests.

Data from qualitative interviews with key activists from the groups organizing the protests shows how this continuity between various components of the movement emerges at the meso level. There are no substantial differences but rather nuances between the frames proposed by the various organizations that took part in the protests around the pre-COP in Milan. There is an increasingly shared view that regulating polluting industries is needed, but the capabilities of both politicians in power and international governance institutions to tackle climate change are seriously limited. This is linked in turn to a common understanding of a need for system change towards climate justice. However, while some organizations understand systemic change as a transformation of the development model, others underline the need to exit capitalism in order to limit the effects of the crisis.

Our qualitative analysis also shows that differences do emerge amongst the organizations, but not in line with the cleavage between 'new' climate strikes and 'traditional' climate marches. Instead, they are transversal. All the groups share a common core defining climate justice as a recognition of the interrelationships between marginalization and experiences of climate change, and a corresponding need to address the problems of marginalized groups all over the world. Some extend climate justice to anti-capitalist, eco-Marxist and/or post-development perspectives that imply overhauling current dominant principles about economic growth, production, extraction, and the distribution of wealth.

Disclosure statement

No potential conflict of interest was reported by the author(s).

ORCID

Giuseppe Cugnata  <http://orcid.org/0000-0001-6270-313X>

Jessica Cuel  <http://orcid.org/0000-0001-7833-667X>

Niccolò Bertuzzi  <http://orcid.org/0000-0003-2929-8931>

Louisa Parks  <http://orcid.org/0000-0002-3921-5397>

Lorenzo Zamponi  <http://orcid.org/0000-0001-9327-3806>

References

- Agyeman, J., Schlosberg, D., Craven, L. and Matthews, C. (2016) 'Trends and directions in environmental justice: from inequity to everyday life, community, and just sustainabilities', *Annual Review of Environment and Resources* 41(1): 321–40.
- Alteri, L., Parks, L.R., Raffini, L. and Vitale, T. (2021) 'Covid-19 and the structural crisis of liberal democracies. determinants and consequences of the governance of pandemic', *Partecipazione e Conflitto* 14(1): 1–37.
- Andretta, M. and della Porta, D. (2014) 'Surveying protestors: why and how', in D. della Porta (ed.), *Methodological Practices in Social Movement Research*, Oxford: Oxford University Press, pp. 308–34.
- Benford, R.-D. and Snow, D.-A. (2000) 'Framing processes and social movements: an overview and assessment', *Annual Review of Sociology* 26(1): 611–39.
- Bertuzzi, N. (2019) 'Political generations and the Italian environmental movement (s): Innovative youth activism and the permanence of collective actors', *American Behavioral Scientist* 63(11): 1556–77.
- Bertuzzi, N., Lagalisse, E., Lello, E., Gobo, G. and Sena, B. (2022) 'Politics during and after Covid-19: science, health and social protest', *Partecipazione e Conflitto* 15(3): 507–29.
- Bowman, B. (2019) 'Imagining future worlds alongside young climate activists: a new framework for research', *Fennia - International Journal of Geography* 197(2): 295–305.
- Buzogány, A. and Scherhauer, P. (2022) 'Framing different energy futures? Comparing Fridays for Future and extinction rebellion in Germany', *Futures* 137: 102904.
- Caney, S. (2014) 'Two kinds of climate justice: avoiding harm and sharing burdens', *Journal of Political Philosophy* 22(2): 125–49.
- Cassegård, C. and Thörn, H. (2017) 'Climate justice, equity and movement mobilization', in C. in Cassegård, L. Soneryd, H. Thörn and A. Wettergren (eds.), *Climate action in a globalizing world*, New York: Routledge, pp. 32–56.
- della Porta, D. (2014) 'In-depth interviews', in D. della Porta (ed.), *Methodological Practices in Social Movement Research*, Oxford: Oxford University Press, pp. 228–61.
- Della Porta, D., Andretta, M., Calle, A., Combes, H., Eggert, N., Giugni, M.G., Hadden, J., Jimenez, M. and Marchetti, R. (2015) *Global Justice Movement: Cross-national and Transnational Perspectives*, New York: Routledge.
- della Porta, D. and Parks, L. (2014) 'Framing processes in the climate movement: from climate change to climate justice', in M. Dietz and H. Garrelts (eds.), *Routledge Handbook of Climate Change Movements*, Abingdon: Routledge, pp. 19–30.

- de Moor, J. (2018) 'The "efficacy dilemma" of transnational climate activism: the case of COP21', *Environmental Politics* 27(6): 1079–1100.
- de Moor, J. (2021) 'Alternative globalities? Climatization processes and the climate movement beyond COPs', *International Politics* 58(4): 582–99.
- de Moor, J., De Vydt, M., Uba, K. and Wahlström, M. (2021) 'New kids on the block: taking stock of the recent cycle of climate activism', *Social Movement Studies* 20(5): 619–25.
- de Moor, J., Uba, K., Wahlström, M., Wennerhag, M. and De Vydt, M. (2020) *Protest for a Future II: Composition, Mobilization and Motives of the Participants in Fridays for Future Climate Protests on 20–27 September, 2019, in 19 Cities around the World*. Available from: <https://eprints.keele.ac.uk/id/eprint/6571/> [Accessed 11 Sep 2023].
- Dessler, A.-E. and Parson, E.-A. (2019) *The Science and Politics of Global Climate Change: A Guide to the Debate*, Cambridge: Cambridge University Press.
- Dietz, M. (2014) 'Debates and conflicts in the climate movement', in M. Dietz and H. Garrelts (eds.), *Routledge Handbook of the Climate Change Movement*, Abingdon: Routledge, pp. 292–307.
- Doherty, B., Saunders, C. and Hayes, G. (2020) 'A new climate movement?: Extinction Rebellion's activists in profile', *CUSP Working Paper Series | No 25* 25(41): 1–39.
- Dryzek, J.-S. (2005) *The Politics of the Earth*, Oxford: Oxford university press.
- Fisher, S.-R. (2016) 'Life trajectories of youth committing to climate activism', *Environmental Education Research* 22(2): 229–47.
- Flick, U. (2022) *An Introduction to Qualitative Research*, 7th ed., London: Sage.
- Gach, E. (2019) 'Normative shifts in the global conception of climate change: the growth of climate justice', *Social Sciences* 8(1): 24.
- Hadden, J. (2015) *Networks in Contention*, Cambridge: Cambridge University Press.
- Hickel, J. and Kallis, G. (2020) 'Is green growth possible?' *New Political Economy* 25 (4): 469–86.
- Kenis, A. (2019) 'Post-politics contested: why multiple voices on climate change do not equal politicisation', *Environment and Planning C: Politics and Space* 37(5): 831–48.
- Kinyon, L., Dolšák, N. and Prakash, A. (2023) 'When, where, and which climate activists have vandalized museums', *npj Climate Action* 2(1): 27.
- Knops, L. (2021) 'Stuck between the modern and the terrestrial: the indignation of the youth for climate movement', *Political Research Exchange* 3(1): 1868946.
- Martinez-Alier, J. (2003) *The Environmentalism of the Poor: A Study of Ecological Conflicts and Valuation*, Cheltenham: Edward Elgar Publishing.
- Martinez-Alier, J., Anguelovski, I., Bond, P., Del Bene, D. and Demaria, F. (2014) 'Between activism and science: grassroots concepts for sustainability coined by environmental justice organizations', *Journal of Political Ecology* 21: 20–60.
- Moore, J.W. (ed.). (2016). *Anthropocene or Capitalocene?: Nature, History, and the Crisis of Capitalism*, Oakland: Pm Press.
- Mosca, L. (2014) 'Methodological practices in social movement online research', in D. della Porta (ed.), *Methodological Practices in Social Movement Research*, Oxford: Oxford university press, pp. 397–417.

- Nairn, K., Kidman, J., Matthews, K.-R., Showden, C.-R. and Parker, A. (2021) 'Living in and out of time: youth-led activism in Aotearoa New Zealand', *Time & Society* 30(2): 247–69.
- Perkins, P.-E. (2019) 'Climate justice, commons, and degrowth', *Ecological Economics* 160: 183–90.
- Piispa, M. and Kiilakoski, T. (2022) 'Towards climate justice? Young climate activists in Finland on fairness and moderation', *Journal of Youth Studies*, 25(7): 897–912.
- Rainsford, E. and Saunders, C. (2021) 'Young climate protesters' mobilization availability: climate marches and school strikes compared', *Frontiers in Political Science* 3: 713340.
- Schlosberg, D. and Collins, L.-B. (2014) 'From environmental to climate justice: climate change and the discourse of environmental justice', *WIREs Climate Change* 5(3): 359–74.
- Shiva, V. (ed.). (2022). *Philanthrocapitalism and the Erosion of Democracy: A Global Citizens Report on the Corporate Control of Technology, Health, and Agriculture*, Santa Fe: Synergetic Press.
- Snow, D.-A. and Benford, R.-D. (1988) 'Ideology, frame resonance, and participant mobilization', *International Social Movement Research* 1(1): 197–217.
- Snow, D.-A., Vliegthart, R. and Ketelaars, P. (2019) 'The framing perspective on social movements: its conceptual roots and architecture', in D.-A. Snow, S.-A. Soule, H. Kriesi and H.-J. McCammon (eds.), *The Wiley Blackwell Companion to Social Movements*, Oxford: Wiley Blackwell, pp. 392–410.
- Steffen, W., Crutzen, P.J. and McNeill, J.R. (2007) 'The Anthropocene: are humans now overwhelming the great forces of nature', *Ambio-Journal of Human Environment Research and Management* 36(8): 614–21.
- Svensson, A. and Wahlström, M. (2021) 'Climate change or what? Prognostic framing by Fridays for Future protesters', *Social Movement Studies* 0(0): 1–22.
- Wahlström, M., Wennerhag, M. and Rootes, C. (2013) 'Framing "the climate issue": patterns of participation and prognostic frames among climate summit protesters', *Global Environmental Politics* 13(4): 101–22.
- Wahlström, M., Kocyba, P., De Vydt, M. and de Moor, J. (eds.). (2019). *Protest for a Future: Composition, Mobilization and Motives of the Participants in Fridays for Future Climate Protests on 15 March, 2019 in 13 European Cities*. doi:10.17605/OSF.IO/XCNZH [Accessed 11 Sep 2023].
- Walgrave, S., Wouters, R. and Ketelaars, P. (2016) 'Response problems in the protest survey design: evidence from fifty-one protest events in seven countries', *Mobilization: An International Quarterly* 21(1): 83–104.
- Zamponi, L., Baukloh, A.-C., Bertuzzi, N., Chironi, D., della Porta, D. and Portos, M. (2022) '(Water) bottles and (street) barricades: the politicisation of lifestyle-centred action in youth climate strike participation', *Journal of Youth Studies*, 25(6): 854–875.