

How politicians and the population attribute responsibility for climate change mitigation: no indication of a 'governance trap' in Norway

Runa Falck

To cite this article: Runa Falck (10 Nov 2023): How politicians and the population attribute responsibility for climate change mitigation: no indication of a 'governance trap' in Norway, *Environmental Politics*, DOI: [10.1080/09644016.2023.2274721](https://doi.org/10.1080/09644016.2023.2274721)

To link to this article: <https://doi.org/10.1080/09644016.2023.2274721>



© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group.



Published online: 10 Nov 2023.



Submit your article to this journal [↗](#)



Article views: 567




View related articles [↗](#)



View Crossmark data [↗](#)

How politicians and the population attribute responsibility for climate change mitigation: no indication of a ‘governance trap’ in Norway

Runa Falck 

Department of Foreign Languages, University of Bergen, Bergen, Norway

ABSTRACT

Previous research claims that ‘the most significant risk’ to achieving climate change mitigation goals is the ‘governance trap’, whereby governments and the public attribute responsibility for action to one another. While it is well documented that individuals call for political action on climate change, there is limited knowledge about how politicians attribute responsibility for climate change mitigation. The present study examines whether there is evidence of a ‘governance trap’ in Norway, by using two online surveys to compare how politicians ($N = 1211$) and the population ($N = 2030$) attribute responsibility for climate change mitigation to individuals, the local and regional authorities, the national authorities, the international community, and business and industry. Contrary to expectations, politicians and the population attribute responsibility to the actors in the same order. Thereby, the study contests the assumption that governments attribute primary responsibility for climate change mitigation to the population.

ARTICLE HISTORY Received 19 December 2022; Accepted 15 October 2023

KEYWORDS Climate change; responsibility; attribution; survey; politicians; population

1. Introduction

The goal of the Paris Agreement is to limit global warming to well below 2, preferably to 1.5 degrees Celsius, compared to pre-industrial levels (United Nations 2015). To mitigate global warming in line with these goals, deep reductions in greenhouse gas emissions must occur in the coming decades (Ipcc 2021). Actors at various levels can play a role in reducing these emissions. When asking the population who they consider responsible for tackling climate change, most responsibility is attributed to national authorities (Livgard 2019, European Commission 2021). At the same time, politicians seem to place responsibility back onto individuals, local authorities, and/or business and

CONTACT Runa Falck  Runa.Falck@uib.no

© 2023 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group. This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

industry (Pidgeon and Butler 2009, Pidgeon 2012, Newell *et al.* 2015, Tolppanen and Kärkkäinen 2021). This apparent mutual avoidance of responsibility leads Pidgeon (2012) to propose that ‘the most significant risk’ to achieving the climate change mitigation goals is the ‘governance trap’, whereby the public and governments in many countries ‘each seek to attribute responsibility for instigating change to the other’.

However, there has been little analysis of politicians’ attribution of responsibility for climate change mitigation to support this assumption. The present study addresses this gap in the literature by presenting novel survey data on how elected politicians in Norway attribute responsibility for climate change mitigation, and comparing their views to those of the Norwegian population, both in general and by political party. By this means, the study investigates to what extent a ‘governance trap’ can be empirically observed in Norway. Norway is an appropriate case, as it is one of the many countries whose current mitigation efforts are insufficient to achieve its mitigation goals (OECD 2022). Examining Norwegian politicians’ attribution of responsibility will illuminate whether this underachievement can in fact be credited to a ‘governance trap’. I will explore in which ways politicians stand out when it comes to attribution of responsibility, by investigating the following research question: *How do politicians attribute responsibility for climate change mitigation, compared to the population?*

To examine the attitudes of politicians and the population, the study compares data from the Panel of Elected Representatives (2021) and the Norwegian Citizen Panel (Ivarsflaten *et al.* 2022). The first is an online survey distributed to all elected representatives at all political levels in Norway, although there are not enough respondents at the national level to examine the views of national politicians separately. The latter is an online survey where a randomly drawn sample of the Norwegian population above the age of 18 is invited to participate. Respondents in both surveys were asked in identical ways to what extent they think that individuals, the local and regional authorities (municipalities and counties), the national authorities (the state), the international community, and business and industry are responsible for climate change mitigation.

Contrary to expectations, the results show that politicians and the population attribute responsibility in a similar way. Both groups view responsibility for climate change mitigation as being shared quite evenly across different actors. Yet, there is a noticeable ranking. Just like the population, politicians attribute most responsibility for climate change mitigation to the international community, followed by the national authorities, business and industry, and local authorities. Both politicians and the population attribute the least responsibility to individuals. Left-wing parties’ voters and politicians tend to attribute relatively greater responsibility to local authorities compared to individuals, whereas right-wing parties’ voters and politicians tend to attribute the same extent of responsibility to these two actors. Overall, the results provide no indication of a ‘governance trap’. This study on Norwegian politicians can be taken as initial

evidence that politicians do not attribute primary responsibility for climate change mitigation to individuals. Thus, it is imperative to explore other avenues to understand how politicians' and the population's attribution of responsibility can result in a gap between climate goals and mitigation efforts.

The paper is organized as follows: [Section 2](#) explains the 'governance trap' and provides some context for this study. [Section 3](#) goes on to describe the data collection, the survey design, and the methods. [Section 4](#) presents and discusses the results of the two surveys on how politicians and the population attribute responsibility for climate change mitigation, both in general and by party. [Section 5](#) discusses various explanations for the gap between targets and current emissions in light of these results, including a consideration of the implications, as well as the limitations of this study and specific questions for further research. Finally, the conclusion provides a summary of the findings.

2. Attribution of responsibility and the 'governance trap'

2.1. Responsibility

There are many ways to understand the term responsibility. Iyengar (1989) makes a distinction between causal and treatment responsibility, where 'causal responsibility focuses on the origin of the problem, while treatment responsibility focuses on who or what has the power either to alleviate or to forestall alleviation of the problem' (Iyengar 1989, p. 879). Throughout this paper, the term responsibility will refer to treatment responsibility.

How responsibility is attributed is central to climate change mitigation. Redirecting responsibility for taking climate action to others, such as other individuals, governments, business, industry, and other countries can be a barrier to engaging with climate change at the individual level (Lorenzoni *et al.* 2007). At the same time, policy statements redirecting responsibility from systemic solutions to individual actions can serve to justify inadequate efforts (Lamb *et al.* 2020), as individualizing responsibility obscures how consumer choices are shaped by institutions and political forces (Maniates 2001).

Truly, the population relies on governments to facilitate the necessary lifestyle changes by putting in place supportive institutions and infrastructure. For example, as long as air travel is available and a cheap option, it is difficult for individuals to consider the more climate-friendly transportation alternatives (Lorenzoni *et al.* 2007, Moberg *et al.* 2019). While political decisions can guide or impose the climate-related decisions individuals make, politicians conversely rely on public support to act on climate. Even if politicians acknowledge that climate action is necessary, the issue poses a representation dilemma for them as long as they perceive little or no pressure from their electorate (Willis 2018).

2.2. 'Governance trap'

This interdependency between societal actors at different societal scales seems to be acknowledged by the population. Through in-depth interviews with households in France, Germany, Norway and Sweden, Moberg *et al.* (2019) found a broad consensus amongst the interviewees that mitigation is a shared responsibility between all societal actors including individuals. Still, many interviewees pointed out that government and industry actors must take their share of the responsibility and steer the process more than they currently do.

The emphasis on other actors' responsibility is even more visible in quantitative surveys asking directly how respondents attribute responsibility for climate change mitigation to a set of actors. Both the population in European Union member states (European Commission 2021) and in Norway (Livgard 2019), consider climate change mitigation to be primarily the responsibility of national authorities and business and industry, while local authorities and individuals are considered to hold less responsibility.

Meanwhile, many argue that politicians place responsibility back onto individuals, local authorities, and/or business and industry to avoid the political risks associated with climate policies (Pidgeon and Butler 2009, Pidgeon 2012, Newell *et al.* 2015). There appears to be a blame game, where individuals, governments, and business and industry put the responsibility on others (Tolppanen and Kärkkäinen 2021). This also seems to be the case in Norway, where the government's white paper 'Norway's climate action plan for 2021–2030' states that 'government climate policy can never be better than the sum of the choices made freely by millions of people' (Meld St 13 (2020 2021), 15).

Pidgeon (2012, p. 89) characterizes this situation as a 'governance trap', whereby 'both the government and the governed seek to attribute primary responsibility to the other, and thus neither party acts in a decisive way'. Furthermore, he concludes that 'Breaking out of this unfortunate stalemate is probably the most significant challenge for climate policy makers' (Pidgeon 2012, p. 99).

2.3. Politicians' attribution of responsibility

What is not yet clear, is the extent to which the assumption that politicians attribute primary responsibility for climate change back onto individuals is accurate. As a subset of the population, politicians could have particular perspectives on climate owing to their positions of power and the institutional spheres they work in (Rickards *et al.* 2014, Willis 2018). Indeed, a Finnish survey found that policymakers are much more worried about climate change than the population (Rapeli and Koskimaa 2022). Despite this possibility for different

attitudes politicians' attribution of responsibility has been poorly examined (Jordan *et al.* 2022).

One exception is a French report (Ademe 2019), which compares the climate change attitudes of local politicians to those of the general population. The report asks which mitigation statement is closest to the respondent's opinion. As suggested by the 'governance trap', the focus on individual lifestyle is more popular among the politicians than among the population, while the option that states should regulate climate change on a global level is more popular among the population than among the politicians. However, in the 'governance trap', the population is supposed to attribute primary responsibility to the government, whereas in the report, 54% of the population chose the individual lifestyle option, while only 19% chose the state/global level option (Ademe 2019, p. 43). This result is not in line with the 'governance trap' and it also conflicts with the results of the Eurobarometer, where the French population attributes more responsibility to the national governments than to 'you personally' (European Commission 2021, p. 29).

The inconsistency between surveys suggests that attribution of responsibility is sensitive to question wording. Typically, generic references to 'lifestyle' (Ademe 2019), 'each citizen' (Frère *et al.* 2021) or 'all Norwegians' (Aasen *et al.* 2019) yield greater responsibility than direct references to 'private citizens' (Livgard 2019) or 'you personally' (European Commission 2021). As these nuances appear to affect the results, it is necessary to be careful about how survey items are worded, and to keep these effects in mind when making inferences about attribution of responsibility.

Overall, the equivocal nature of existing data emphasizes the need for more evidence to clarify to what extent a 'governance trap' can be observed, in France or elsewhere. Furthermore, no studies have been found that surveyed how politicians attribute responsibility to business and industry and the international community, despite these actors being frequently mentioned when discussing responsibility for climate change mitigation (Lorenzoni *et al.* 2007, Pidgeon 2012, Newell *et al.* 2015). Therefore, the purpose of this study is to offer an empirical test of the 'governance trap' thesis, by collecting survey data on how Norwegian politicians attribute responsibility for climate change mitigation to individuals, local authorities, national authorities, business and industry and the international community, and compare them to survey data on the Norwegian population.

2.4. The Norwegian context

Norway has elected politicians at three levels: local (municipal), regional (county) and national. In this study, local politicians will refer to both politicians at the municipal and county level, while national politicians refer to politicians in the national parliament. According to the Norwegian Environment Agency,

decisions taken at the national, and international, level will be of greater importance for some emission sources, such as the industry. However, local authorities can cut emissions from the municipal activities and the services they deliver, as well as use land planning to facilitate environmentally friendly transportation. Local measures can to some extent mitigate emissions from road traffic but national measures also play a role here (Miljødirektoratet 2021). In sum, local and regional authorities have some capacity for cutting emissions, but they are limited by decisions taken by the national authorities.

Still, the views of local politicians can influence national policies, both through formal and informal channels (Saglie *et al.* 2022, pp. 24–25). Norwegian parties are strongly integrated and to a significant extent formally governed from below. Whereas the county level is less important than the municipal level within the state, the county level seems more important than the municipal level within parties, in terms of contact and attempts of influence (Allern and Saglie 2012).

Even if local politicians are important members of the political parties, local politicians may stand less out from the general population than the national politicians, as many of the local politicians are only politicians next to their regular job. In contrast, all national politicians are full-time politicians. At the same time, a high proportion of parliamentarians in Norway have prior experience at the local level (Cirone *et al.* 2021), which might indicate that these groups are not completely different.

At the time of the data collection for this study, there were nine parties in the Norwegian parliament. The Red Party, the Socialist Left Party and the Labour Party belong to the left. The Centre Party, the Green Party, the Christian Democrats and the Liberals are in the centre, while the Conservative Party and the Progress Party belong to the right.

2.5. Attribution of responsibility by the political left and right

Data from parts of France (Frère *et al.* 2021) suggest that, compared to other voters, voters on the left are more likely to think that action against climate change is the role of the collective and the state, whereas voters on the right are more likely to think of climate action as the role of every citizen. However, it is challenging to interpret these data, as both left- and right-wing voters attribute more responsibility to citizens than to the state, and most responsibility to ‘the whole world’. Besides, the effect of political orientation is uncertain, as the observed attitudinal differences between left and right were not extended to voters of the far-left and the far-right. Nevertheless, Frère *et al.* (2021) explain the findings by linking left-wing voters’ preferences for state responsibility to the role of the welfare state, while linking right-wing voters’ preference for citizen responsibility to liberal ideas that place more reliance on citizen accountability.

There are indeed some indications that the political left prefers state solutions. Båtstrand (2014) analyzed the 2009 party manifestos of the Socialist Left Party, the Labour Party, the Conservative Party and the Progress Party in Norway. Only the two left-wing parties had proposed traditional left-wing climate policies, such as increased taxes, public ownership, and bans and regulations. This tendency is also found in other countries, where left governments are more likely than center and right governments to produce ‘hard climate policies’, meaning regulatory policies and economic instruments with negative incentives (Schulze 2021).

Despite the documented link between the political left and an active state, right-wing politicians and voters might favor other ways in which the state can contribute to climate change mitigation. For example, the Conservative party in Norway argues that politicians are responsible for making it easier for people to live climate friendly (Båtstrand 2015). Additionally, conservative parties in several countries support international treaties, which, according to Båtstrand (2015), can be viewed as state regulations one level up. If these kinds of policies are understood as state responsibility, the political right might attribute the same extent of responsibility to national authorities as the political left.

Likewise, it is questionable whether right-wing solutions to climate change place more responsibility on individuals. In fact, Båtstrand (2014) found that the left-wing parties had proposed more climate policies related to consumer responsibility than the right-wing parties. This attention to consumer behavior by the political left suggests that they rely no less on citizen accountability than the political right does.

All in all, there is limited knowledge about how responsibility for climate change mitigation is attributed by the political left and right. However, there seems to be some differences (Frère *et al.* 2021) and political parties propose different kinds of climate policies (Båtstrand 2014, Schulze 2021). Hence, to empirically test the ‘governance trap’ in Norway, this study will investigate whether Norwegian politicians from some parties are more likely to attribute responsibility for climate change mitigation in a way that is more consistent with the ‘governance trap’ than others. This investigation can inform the extent to which the findings are affected by the party distribution in the given election period or by party biases in the sample. Finally, since the ‘governance trap’ implies that politicians attribute responsibility in a different way than the population, the study will also examine how the political parties’ voters attribute responsibility for climate change mitigation.

3. Research design and methods

3.1. Data collection

In order to examine to what extent there is a ‘governance trap’ in Norway, I use survey data to compare how politicians and the population attribute

responsibility for climate change mitigation. Data on politicians were collected through the Panel of Elected Representatives (2021) and data on the population were collected through the Norwegian Citizen Panel (Ivarsflaten *et al.* 2022).

The Panel of Elected Representatives invites all elected representatives in Norway at all political levels of administration to participate in an online survey. In Norway, there are 169 representatives in the national parliament, 575 in the county councils (SSB 2022a), and 9344 in the municipalities (SSB 2022b). The data for the present analysis were collected between 27 January and 8 March 2021. In total, there were 1211 respondents. Out of these, 1186 were local politicians (1082 at the municipal level and 104 at the county level), while 25 were national politicians. Although most of the politicians are local, this is not a bias in the sample, but simply reflects the fact that Norwegian politicians are for the most part elected to local assemblies. For more details on the data collection, see the methodology report (Skjervheim *et al.* 2021a).

The Norwegian Citizen Panel invites members of the Norwegian population above the age of 18 who are randomly drawn from the National Population Registry of Norway to participate in an online survey. The data were collected between 26 May and 15 June 2021. In total, there were 2030 respondents. For more details on the data collection, see the methodology report (Skjervheim *et al.* 2021b).

Both the Panel of Elected Representatives and the Norwegian Citizen Panel have been reported to and considered by Sikt – Norwegian Agency for Shared Services in Education and Research (former NSD – The Norwegian Centre for Research Data) in accordance with the Personal Data Act. For the Norwegian Citizen Panel, a Data Protection Impact Assessment (DPIA) has been conducted in cooperation with Sikt (project number 118,868). Both panels adhere to national and university-level ethical standards, and all respondents signed informed consent before participation in the panels.

Table A1 in the Appendix provides a summary of the respondents' characteristics. Tables A2 and A3 in the Appendix compares the survey samples to their respective panel populations. There are some underrepresented groups in both survey samples. In the Panel of Elected Representatives, men are overrepresented. The oldest age group and the higher educated are overrepresented in both surveys (Skjervheim *et al.* 2021a, 2021b). In the Panel of Elected Representatives, there is some party affiliation bias at the county and parliamentary level, where there are fewer respondents. At the municipal level, party affiliation is more or less on par with the panel population (Skjervheim *et al.* 2021a).

To enhance the sample's representativeness, data from the Norwegian Citizen Panel are weighted based on demographic variables (age, gender, region) and educational level. Similar weights do not exist for the Panel of Elected Representatives. However, Table A4 in the Appendix shows that the

main results remain the same when controlling for age, gender and education, The party bias in the sample is offset by the additional analysis within each party (see [Figure 2](#)).

3.2. Survey design

To measure attribution of responsibility, respondents in both the Norwegian Citizen Panel and the Norwegian Panel of Elected Representatives were asked the following question: ‘To what extent do you think the following are responsible for cutting greenhouse gas emissions?’ The question was asked as a battery where respondents could evaluate the responsibility of the international community, the national authorities (the state), the local and regional authorities (municipalities and counties), business and industry, and individuals. The evaluation was on a 5-point scale, with the values ‘not at all’, ‘to a small extent’, ‘to some extent’, ‘to a large extent’, and ‘to a very large extent’.

The battery format is flexible in that it provides the opportunity to express not only which actors are responsible but also to what extent that actor is responsible. This format was chosen because it does not require respondents to rank between actors but still allow them to do so. Furthermore, it permits respondents to express that every actor is simultaneously responsible or that none of them are. Thereby, the question avoids creating a false dichotomy between the actors (as with only one possible option), or forcing an artificial ranking (as with rankings), or not showing the ranking (as with several options possible). [Table A5](#) in the Appendix presents the distribution of responses. The results will be consistent with the ‘governance trap’ if they show that politicians attribute more responsibility to individuals than to themselves, while the population attributes more responsibility to local and regional or national authorities than to individuals.

Political party is measured as party affiliation in the Panel of Elected Representatives and as vote intention in the Norwegian Citizen Panel. In the Panel of Elected Representatives, respondents were asked: ‘Which party do you represent?’ In the Norwegian Citizen Panel, respondents were asked: ‘Which party would you vote for if there were a parliamentary election tomorrow?’

3.3. Quantitative analysis

The dependent variable of the survey is ordered at five levels (not at all – to a large extent), which calls for an ordinal logistic regression analysis. However, since visualizing and interpreting the results of an ordinal logistic regression analysis can be complicated, the main text presents the predicted values using linear regression models. This parametric test provides similar

outcomes to the more appropriate nonparametric one, as [Table A6](#) in the Appendix shows. I fitted the data using R (R Core Team 2022) with the package functions ‘haven’ (Wickham and Miller 2021), ‘sjmisc’ (Lüdtke 2018b), ‘dplyr’ (Wickham *et al.* 2022), ‘ggplot2’ (Wickham 2016), ‘ggeffects’ (Lüdtke 2018a), ‘wesanderson’ (Ram and Wickham 2018), ‘MASS’ (Venables and Ripley 2002), and ‘stargazer’ (Hlavac 2022).

4. Results

As can be seen from the data in [Figure 1](#), all actors are considered responsible to some or greater extent, by both politicians and the population. Furthermore, politicians and the population attribute responsibility to the actors in the same order. On average, most responsibility is attributed to the international community, followed by national authorities, business and industry, and local authorities. Both politicians and the population attribute the least responsibility to individuals.

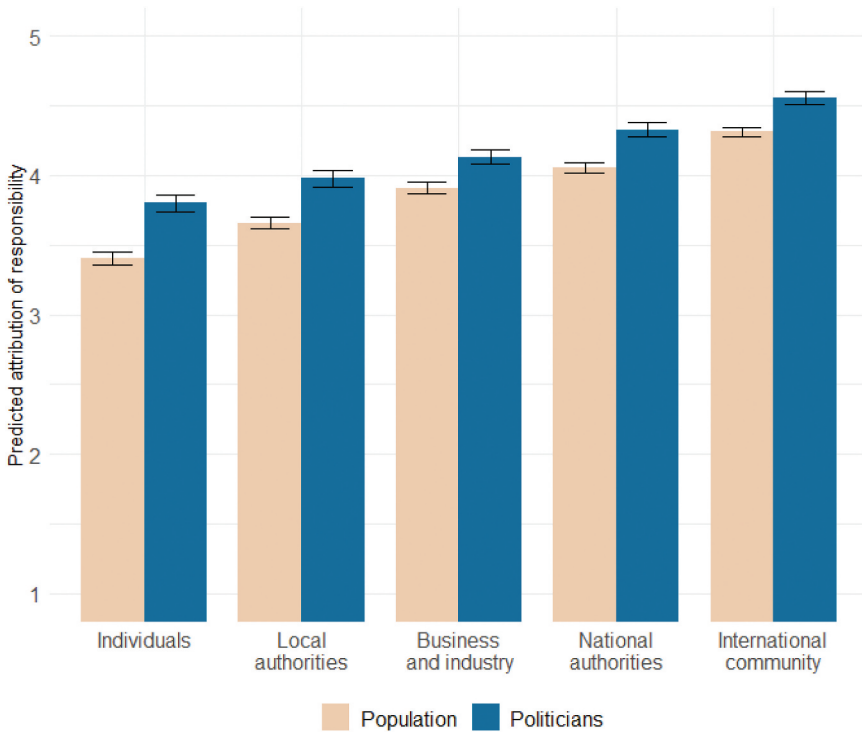


Figure 1. Comparing politicians and the population. Linear prediction of responsibility attributed to the various actors by the population and politicians, with 95 % confidence intervals. Data from the Norwegian Citizen Panel are weighted by age, gender, region, and education. [Table A7](#) in the appendix presents the underlying coefficients.

However, politicians from certain parties may attribute more responsibility to individuals than to themselves. Figure 2 presents how local politicians representing the various parties attribute responsibility to local authorities and individuals.

From the data in Figure 2, it is apparent that none of the parties' local politicians attribute more responsibility to individuals than to local authorities. Local politicians representing the Red Party, the Socialist Left Party, the Labour Party, and the Green Party attribute statistically significantly more responsibility to local authorities than to individuals. In contrast, the difference between the extent of responsibility attributed to individuals and local authorities by local politicians representing the Centre Party, the Christian Democrats, the Liberal Party, the Conservative Party and the Progress Party is not statistically significant.

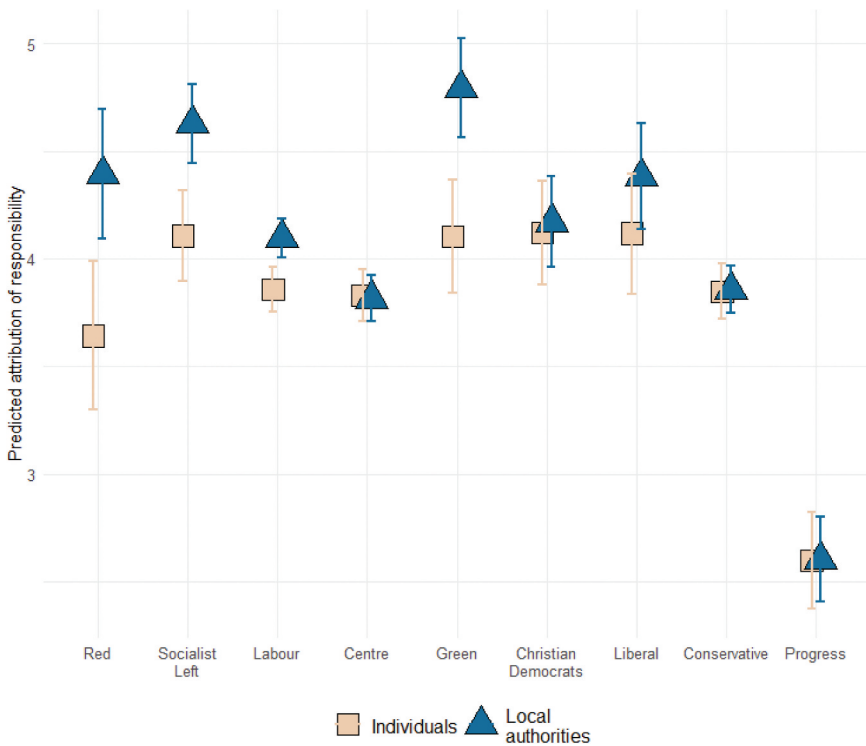


Figure 2. Local politicians' attribution of responsibility to individuals and local authorities. Linear prediction of responsibility attributed to individuals and local authorities by local politicians, with 95 % confidence intervals. Table A8 in the appendix presents the underlying coefficients.

Figure 3 presents how voters of the various parties attribute responsibility to local authorities and individuals. Just like the politicians they intend to vote for, voters of the Red Party, the Socialist Left Party, the Labour Party, and the Green Party attribute statistically significantly more responsibility to local authorities than to individuals, while there is no statistically significant difference between the responsibility attributed to individuals and local authorities by voters of the Centre Party, the Christian Democrats, the Liberal Party, the Conservative Party and the Progress Party.

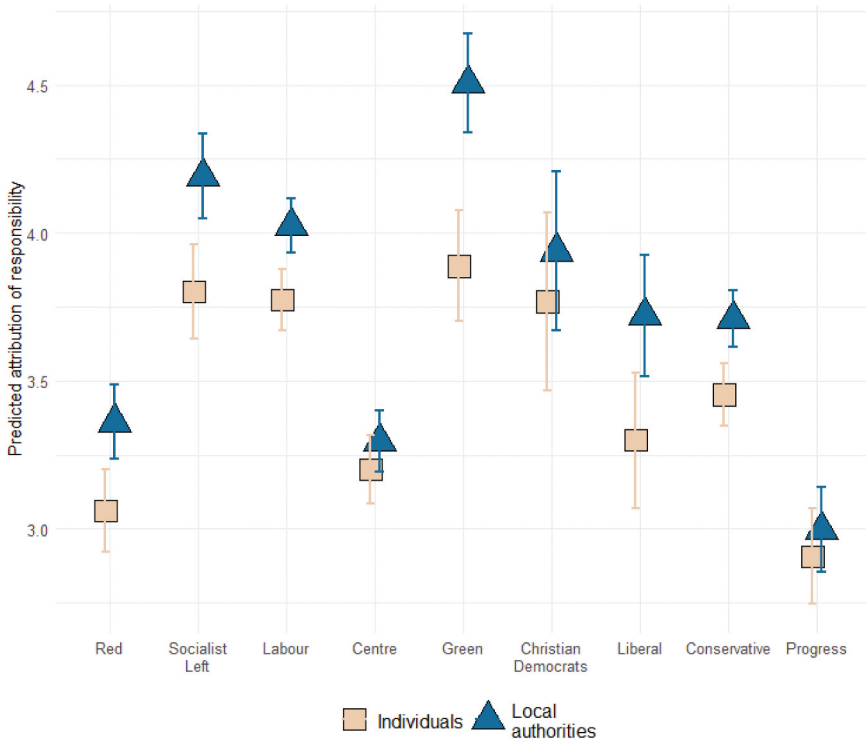


Figure 3. The voters' attribution of responsibility to individuals and local authorities. Linear prediction of responsibility attributed to individuals and local authorities by voters, with 95 % confidence intervals. [Table A9](#) in the appendix presents the underlying coefficients.

5. Discussion

To my knowledge, this is the first study to examine whether a 'governance trap' can be empirically observed by comparing how politicians and the population attribute responsibility for climate change mitigation to different actors. By no means do these country-specific data on predominantly local

politicians provide a final conclusion to this question. However, they point in an unexpected direction, and challenge some preconceived notions. In contrast to what the 'governance trap' suggests, the results show that Norwegian politicians do not attribute primary responsibility to individuals. This finding holds even when investigating politicians' attitudes at the party level. The results therefore do not provide any evidence of a 'governance trap'. Yet, there is a gap between climate targets and current mitigation efforts (OECD 2022). In the following, I will discuss how this gap can be understood in light of the findings of the present study.

5.1. Explaining the emission gap

On the one hand, the findings show that responsibility is quite evenly attributed across all the actors. On the other, there is a noticeable ranking between the actors. Both the even attribution and the ranking could be viewed as either a problematic or a desirable approach to climate change mitigation.

The nearly even attribution of responsibility for climate change mitigation to many different actors could lead to diffusion of responsibility (Frantz and Mayer 2009). As Bulkeley and Moser (2007, p. 8) ask: 'If climate protection becomes everyone's responsibility, does it end up being no-one's?' Nonetheless, they answer the question by highlighting that the involvement of many is both appropriate and necessary to manage this global, multi-faceted problem. Several others also maintain that evenly attributing responsibility is a desirable approach to climate change mitigation. For example, Ostrom (2010) contends that global treaties must be backed up by efforts at the national, regional and local levels in order to work well. Hence, she argues for a polycentric approach to solve climate change, which implies that 'the day-to-day activities of individuals, families, firms, communities, and governments at multiple levels must change substantially' (Ostrom 2010, p. 551).

Similarly, Tolppanen and Kärkkäinen (2021) insist that for climate change mitigation to happen, individuals need to take responsibility for their own actions, while also holding other actors accountable for theirs. They conclude that 'we are not there yet', as individuals tend to view other actors as more responsible for climate change mitigation than themselves, instead of understanding how individuals, governments and businesses are interconnected (Tolppanen and Kärkkäinen 2021, p. 2421). The present study confirms that the population attributes more responsibility to other actors than to individuals but nuances the finding by showing that a large extent of responsibility is simultaneously attributed to all actors, including individuals. The large extent of responsibility attributed simultaneously to all the actors by both politicians and the population indicates that climate change mitigation is

viewed as a joint project where actors at multiple levels are expected to contribute, albeit some actors to a slightly greater extent than others.

Indeed, although the responsibility is evenly distributed among the actors, there is still a noticeable ranking. It is potentially problematic that key responsibility is attributed to diffuse actors such as business, industry and the international community, who cannot be held accountable in the same way as politicians. The great extent of responsibility attributed to the international community also implies that responsibility is shifted away from the national authorities to a level where the measures are soft and the sanctions are absent. Besides, while the framing of climate change as a global problem that requires cooperation between nation-states is conventional, it tends to neglect other scales of decision-making (Bulkeley and Newell 2023).

Both the population and the local politicians externalize responsibility to other actors, which can be a risk to reaching the global climate targets. Bulkeley and Newell (2013) point out that while the framing of climate change as a global problem that requires cooperation between nation-states has become conventional, it tends to neglect other scales of decision-making. According to Pidgeon (2012, p. 89) ascribing primary responsibility to powerful external actors, such as the international community, national governments and business, can in part be interpreted as an indication that people seek to displace responsibility for major action onto others rather than themselves, thereby avoiding costly or difficult changes to their own lifestyles.

At the same time, Becker and Sparks (2018) remark that attributing responsibility to the political and economic structures that maintain high emissions and influence individual behavior is not necessarily an attempt to avoid responsibility but could also be a relevant criticism of the economic system. Indeed, the perspective that individual choices are shaped by political forces (Maniates 2001) might explain why some attribute more responsibility to actors who have the capacity to implement systemic solutions.

5.2. Attribution of responsibility by the political left and right

It is interesting to note that political orientation seems to predict whether responsibility is evenly attributed or ranked when comparing how responsibility is attributed to individuals and local authorities. Voters and local politicians to the left (and the Green Party) are more likely to rank the actors, by attributing a greater extent of responsibility to local authorities than to individuals. In contrast, voters and local politicians to the right (as well as the Centre Party and the Christian Democrats) are more likely to attribute responsibility evenly, by attributing the same extent of responsibility to both actors.

It is possible that the political left attributes more responsibility to authorities than to individuals because they think climate change mitigation is best achieved by introducing ‘hard policies’ such as regulations and increased taxes (Båtstrand 2014, Schulze 2021). This explanation would also accord with the claim advanced by Frère *et al.* (2021), that the political left favors state responsibility while the political right favors liberal ideas that rely on citizen accountability. However, the results must be interpreted with caution, as it is unknown what kind of actions responsibility at the different levels correspond to. For example, it is not obvious whether climate policies related to consumer behavior are linked to the individual or the local/national level.

5.3. Implications

The finding that individuals are considered responsible, but only to some extent, and the least responsible of the included actors, suggests that the population is ready to contribute to climate change mitigation, but expect other actors to contribute more. Furthermore, the finding that local and national authorities are considered more responsible than individuals, indicate that there is legitimacy among the population for the authorities to implement climate policies at the local and national levels, in line with the findings of Moberg *et al.* (2019). This may imply that there is scope for policymakers to take advantage of the population’s readiness to act at the individual level by introducing policies that will imply lifestyle changes.

The great extent of responsibility attributed to business and industry signals that policies aimed at mitigating climate change should also target this actor. When policies use disincentives, people tend to prefer targeting businesses over individuals (Swim and Geiger 2021). Another interpretation is that business and industry are considered responsible for phasing out production of fossil fuels or for producing goods in a more environmentally friendly way. Another possible interpretation is that business and industry are considered responsible for developing new technology. Norwegians are particularly technology optimistic regarding climate change mitigation (Steenstjes *et al.* 2017).

Finally, the results show that the international community is considered the most responsible actors. This could mean that participation in international negotiations and agreements enjoy a great extent of legitimacy among the Norwegian population and politicians.

5.4. Limitations and future research

The generalizability of the results in this study is subject to at least three limitations. First, the conclusions that can be drawn regarding how national politicians attribute responsibility are limited by the small sample size of

politicians at this level. The results are not affected by the exclusion of these respondents (see [Table A4](#) in the Appendix), and a high proportion of parliamentarians in Norway have prior experience at the local level (Cirone *et al.* 2021), which might indicate that national and local politicians hold similar opinions. However, the possibility that national politicians attribute responsibility in a different way than local politicians cannot be ruled out. Certainly, it might be easier for local politicians to externalize responsibility to the national authorities than for national politicians to attribute this responsibility to themselves. At the same time, this study shows that local politicians do not externalize responsibility ‘downwards’ to the individual level. Hence, it can be hypothesized that neither national politicians externalize responsibility by attributing primary responsibility to individuals. For national politicians, it is possible that the externalization of responsibility rather results in a greater extent of responsibility attributed to actors such as business and industry and the international community. To more systematically interrogate the ‘governance trap’, future studies should investigate in which ways national politicians might stand out.

Analyzable data on national politicians can be obtained through qualitative research or by a larger survey sample size. Qualitative interviews require fewer respondents and are often used when researching opinions on political elites (Rickards *et al.* 2014, Willis 2018). Such interviews could include specific questions about how politicians attribute responsibility for climate change mitigation to various societal actors. However, since the ‘governance trap’ thesis is based on survey results of the population, the most appropriate test would be comparable survey results of national politicians. Since there are only 169 politicians in the Norwegian parliament, the response rate in this study would have had to be remarkably high to achieve a sample size large enough to do quantitative analysis on this political level. Future studies could increase the sample size by increasing the target population. This can be done by conducting the study in a country where there are more national politicians, or by collecting data in several countries. A larger target population could also be achieved by inviting the national politicians’ deputy representatives as well.

Second, specific institutional settings might shape the extent to which the population’s views align with those of the politicians. The political system in Norway differs from that in other countries, such as the UK and the US, in significant ways. For example, Norway’s proportional representation electoral system and generally high levels of equality can result in a more representative set of politicians, who are therefore more congruent with the population, compared to other countries. However, there is also a large extent of congruence between local politicians and the population regarding attribution of responsibility in France (Ademe 2019), indicating that this part of the findings is not unique to Norway. Besides, members of the UK

parliament do not emphasize individual responsibility when deliberating on how to act on climate change (Willis 2018), which supports the argument that the ‘governance trap’ is not the primary impediment to reaching the climate goals in the UK either.

Third, climate change perceptions tend to be culturally dependent (Poortinga *et al.* 2019), and this could also be the case for the attribution of responsibility for climate mitigation. Indeed, data from the Eurobarometer (European Commission 2021) confirm that there are notable variations within the European Union regarding the attribution of responsibility. To gain insight into the universality of the findings, future research should study how politicians attribute responsibility compared to the population in different institutional and cultural settings.

It was beyond the scope of this study to examine the motivation for politicians’ reluctance to take action on climate change. It is certainly possible that politicians are hesitant to act on climate change because they worry about reelection and are therefore waiting for the public to instigate change before they attempt to force people to accept more radical climate policy, as suggested by Pidgeon (2012). Further work is required to examine these attitudes.

This research has also thrown up some other questions in need of further investigation. For example, a question which remains unanswered at present is how the extent of responsibility attributed to the different actors is connected to the preferred political responses to climate change. In particular, given the great extent of responsibility attributed to diffuse actors such as business, industry and the international community, additional research might benefit from investigating who these actors are perceived to be and what their responsibility is perceived to consist of. Another related and important issue for future research is what politicians believe to be the correct role of the government and, conversely, what kinds of governmental support the population thinks are required for individuals to mitigate climate change. Future research could also examine how politicians and the population attribute causal responsibility for climate change mitigation.

6. Conclusion

Previous research has claimed that there is a ‘governance trap’ in many countries, whereby governments and the public attribute responsibility for climate action to one another (Pidgeon 2012). This study was designed to investigate whether there is empirical evidence of a ‘governance trap’ in Norway. It compared how politicians and the population attributed responsibility for climate change mitigation in two online surveys. The results provided no indication of a ‘governance trap’.

Both politicians and the population attributed most responsibility to the international community, followed by the national authorities,

business and industry, local authorities, and lastly, individuals. In other words, politicians did not attribute more responsibility to individuals than to themselves. This finding was further strengthened by a comparison of politicians and voters within each party, which confirmed that the two groups attributed responsibility in similar ways, and that politicians did not attribute primary responsibility to individuals, regardless of their party affiliation. Overall, politicians and the population attributed responsibility quite evenly across the different actors, which seems to suggest that the respondents understand climate change mitigation as a task best addressed by simultaneous efforts from various actors at the global, national, local and individual levels.

This study extends insights from prior research on the attribution of responsibility by including politicians' perspectives. In particular, the findings shed light on how similar politicians and the population are in their views of responsibility for climate change mitigation. In doing so, the study contests the claim that politicians attribute primary responsibility for climate change to individuals, and that this avoidance of responsibility is the most significant risk to achieving climate change mitigation goals. While the study has important limitations and only serves as a preliminary contribution in the area of how politicians view responsibility for climate change mitigation compared to the population, the findings point at the need to explore other avenues than the 'governance trap' to understand why current climate change mitigation efforts are not meeting the global targets of the Paris Agreement.

Disclosure statement

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

Funding

This work was supported by the Norges Forskningsråd [301103].

ORCID

Runa Falck  <http://orcid.org/0000-0002-8999-5811>

References

- Aasen, M., *et al.*, 2019. Folk og klima: Nordmenns holdninger til klimaendringer, klimapolitikk og eget ansvar. CICERO Report.
- Ademe, 2019. Les représentations sociales du changement climatique: Agence De L'environnement Et De La Matérialité De L'énergie.

- Allern, E.H. and Saglie, J., 2012. Inside the black box: parties as multi-level organisations in a unitary state. *West European Politics*, 35 (5), 947–970. doi:10.1080/01402382.2012.706406.
- Båtstrand, S., 2014. Giving content to new politics: from broad hypothesis to empirical analysis using Norwegian manifesto data on climate change. *Party Politics*, 20 (6), 930–939. doi:10.1177/1354068812462923.
- Båtstrand, S., 2015. More than markets: a comparative study of nine conservative parties on climate change. *Politics & Policy*, 43 (4), 538–561. doi:10.1111/polp.12122.
- Becker, S. and Sparks, P., 2018. Talking about climate change mitigation: People's views on different levels of action. *Sustainability*, 10 (5), 1357. doi:10.3390/su10051357.
- Bulkeley, H. and Moser, S.C., 2007. Responding to climate change: governance and social action beyond kyoto. *Global Environmental Politics*, 7 (2), 1–10. doi:10.1162/glep.2007.7.2.1.
- Bulkeley, H. and Newell, P., 2023. *Governing climate change*. 3rd ed. London: Routledge. doi:10.4324/9781003219828.
- Cirone, A., Cox, G.W., and Fiva, J.H., 2021. Seniority-based nominations and political careers. *American Political Science Review*, 115 (1), 234–251. doi:10.1017/S0003055420000416.
- European Commission. 2021. *Climate change: special eurobarometer*. European Union, 513. doi:10.2834/437.
- Frantz, C.M. and Mayer, F.S., 2009. The emergency of climate change: why are we failing to take action? Analyses of social issues and public policy. *Analyses of Social Issues and Public Policy*, 9 (1), 205–222. doi:10.1111/j.1530-2415.2009.01180.x.
- Frère, S. et al., 2021. Individual responsibility and climate action: some lessons from a perception survey administered in hauts-de-france. *International Journal of Environmental Studies*, 78 (1), 28–56. doi:10.1080/00207233.2020.1802941.
- Hlavac, M., 2022. Stargazer: Well-Formatted Regression and Summary Statistics Tables. Social Policy Institute, Bratislava, Slovakia. R package version 5.2.3. <https://CRAN.R-project.org/package=stargazer>.
- Ippc, 2021. Summary for policymakers. In: V. Masson-Delmotte, P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M.I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J.B.R. Matthews, T.K. Maycock, T. Waterfield, O. Yelekçi, R. Yu, and B. Zhou, eds. *Climate change 2021: the physical science basis. Contribution of working group I to the sixth assessment report of the intergovernmental panel on climate change*. Cambridge, United Kingdom and New York, NY, USA: Cambridge University Press, 3–32.
- Ivarsflaten, E., et al., 2022. *Norwegian citizen panel round 21, 2021. Data collected by ideas 2 evidence for the Norwegian Citizen Panel*. Bergen: Sikt - Norwegian Agency for Shared Services in Education and Research.
- Iyengar, S., 1989. How citizens think about national issues: a matter of responsibility. *American Journal of Political Science*, 33 (4), 878–900. doi:10.2307/2111113.
- Jordan, A., et al., 2022. The political challenges of deep decarbonisation: towards a more integrated agenda. *Climate Action*, 1 (1), 1–12. doi:10.1007/s44168-022-00004-7.
- Lamb, W.F., et al., 2020. Discourses of climate delay. *Global Sustainability*, 3. doi:10.1017/sus.2020.13.
- Livgard, E.F., 2019. *Kantar klimabarometer 2019*. Kantar.

- Lorenzoni, I., Nicholson-Cole, S., and Whitmarsh, L., 2007. Barriers perceived to engaging with climate change among the UK public and their policy implications. *Global Environmental Change*, 17 (3–4), 445–459. doi:10.1016/j.gloenvcha.2007.01.004.
- Lüdecke, D., 2018a. Ggeffects: tidy data frames of marginal effects from regression models. *Journal of Open Source Software*, 3 (26), 772. doi:10.21105/joss.00772.
- Lüdecke, D., 2018b. Sjmisc: data and variable transformation functions. *Journal of Open Source Software*, 3 (26), 754. doi:10.21105/joss.00754.
- Maniates, M.F., 2001. Individualization: plant a tree, buy a bike, save the world? *Global Environmental Politics*, 1 (3), 31–52. doi:10.1162/152638001316881395.
- Meld. St. 13 (2020–2021). Norway's climate action plan for 2021–2030.
- Miljødirektoratet, 2021. Utslipp av klimagasser i kommuner og fylker: Spørsmål og svar [online]. <https://www.miljodirektoratet.no/tjenester/klimagassutslipp-kommuner/sporsmal-og-svar/>
- Moberg, K.R., et al., 2019. Mobility, food and housing: responsibility, individual consumption and demand-side policies in European deep decarbonisation pathways. *Energy Efficiency*, 12 (2), 497–519. doi:10.1007/s12053-018-9708-7.
- Newell, P. et al., 2015. Governance traps in climate change politics: Re-framing the debate in terms of responsibilities and rights. *Wiley Interdisciplinary Reviews: Climate Change*, 6 (6), 535–540. doi:10.1002/wcc.356.
- Oecd, 2022. *Oecd environmental performance reviews: Norway 2022: organisation for economic Co-operation and development*. Paris: OECD Publishing. doi:10.1787/59e71c13-en.
- Ostrom, E., 2010. Polycentric systems for coping with collective action and global environmental change. *Global Environmental Change*, 20 (4), 550–557. doi:10.1016/j.gloenvcha.2010.07.004.
- Panel of Elected Representatives, 2021. *Wave 5. Data from ideas2evidence for the panel of elected representatives*. Bergen: University of Bergen.
- Pidgeon, N., 2012. Public understanding of, and attitudes to, climate change: UK and international perspectives and policy. *Climate Policy*, 12 (sup01), S85–S106. doi:10.1080/14693062.2012.702982.
- Pidgeon, N. and Butler, C., 2009. Risk analysis and climate change. *Environmental Politics*, 18 (5), 670–688. doi:10.1080/09644010903156976.
- Poortinga, W., et al., 2019. Climate change perceptions and their individual-level determinants: a cross-European analysis. *Global Environmental Change*, 55, 25–35. doi:10.1016/j.gloenvcha.2019.01.007
- Ram, K. and Wickham, H., 2018. Wes Anderson: a Wes Anderson palette generator. Available from: <https://CRAN.R-project.org/package=wesanderson> .
- Rapeli, L. and Koskimaa, V., 2022. Concerned and willing to pay? Comparing policymaker and citizen attitudes towards climate change. *Environmental Politics*, 31 (3), 542–551. doi:10.1080/09644016.2021.1970458.
- R Core Team, 2022. *R: a language and environment for statistical computing*. Vienna, Austria: R Foundation for Statistical Computing.
- Rickards, L., Wiseman, J., and Kashima, Y., 2014. Barriers to effective climate change mitigation: the case of senior government and business decision makers. *Wiley Interdisciplinary Reviews: Climate Change*, 5 (6), 753–773. doi:10.1002/wcc.305.
- Saglie, J., et al., 2022. *Lokale partilag og lister: Organisasjon, aktiviteter og økonomi*. Oslo: Institutt for samfunnsforskning.

- Schulze, K., 2021. Policy characteristics, electoral cycles, and the partisan politics of climate change. *Global Environmental Politics*, 21 (2), 44–72. doi:10.1162/glep_a_00593.
- Skjervheim, Ø., et al., 2021a. The panel of elected representatives: fifth wave methodology report.
- Skjervheim, Ø., et al., 2021b. Norwegian citizen panel: twenty-first wave methodology report.
- Ssb, 2022a. 01183: Fylkestingsvalget. Representanter, etter kjønn og parti/valgliste (k) 1975 - 2019 [online]. Statistisk sentralbyrå. Available from: <https://www.ssb.no/statbank/table/01183/>
- Ssb, 2022b. 04964: Kommunestyremedlemmer, etter statistikkvariabel og fireårlig [online]. Statistisk sentralbyrå. Available from: <https://www.ssb.no/statbank/table/04964/tableViewLayout1/>
- Steenjens, K., et al., 2017. European Perceptions of Climate Change (EPCC): topline findings of a survey conducted in four European countries in 2016.
- Swim, J.K. and Geiger, N., 2021. Policy attributes, perceived impacts, and climate change policy preferences. *Journal of Environmental Psychology*, 77, 101673. doi:10.1016/j.jenvp.2021.101673
- Tolppanen, S. and Kärkkäinen, S., 2021. The blame-game: pre-service teachers views on who is responsible and what needs to be done to mitigate climate change. *International Journal of Science Education*, 43 (14), 1–24. doi:10.1080/09500693.2021.1965239.
- United Nations, 2015. *Paris Agreement* [online]. https://unfccc.int/sites/default/files/english_paris_agreement.pdf [Accessed Access Date 2023].
- Venables, W.N. and Ripley, B.D., 2002. *Modern applied statistics with s*. Fourth ed. New York: Springer.
- Wickham, H., 2016. *Ggplot2: elegant graphics for data analysis*. New York: Springer-Verlag New York.
- Wickham, H., et al., 2022. Dplyr: a grammar of data manipulation. Available from: <https://CRAN.R-project.org/package=dplyr>.
- Wickham, H. and Miller, E., 2021. Aortic thrombosis in COVID-19. *Clinical Infection in Practice*, 9. doi:10.1016/j.clinpr.2020.100059.
- Willis, R., 2018. How members of parliament understand and respond to climate change. *The Sociological Review*, 66 (3), 475–491. doi:10.1177/0038026117731658.

Appendix

Table A1. Sample characteristics.

	Norwegian Citizen Panel N = 2030	Panel of Elected Representatives N = 1211
Gender		
Male	1029 (51%)	752 (62%)
Female	1001 (49%)	459 (38%)
Year of birth		
1959 or earlier	912 (45%)	397 (33%)
1960–1989	971 (48%)	722 (60%)
1990 or later	147 (7%)	62 (5%)
Education		
No higher education	700 (34%)	364 (30%)
Higher education	1299 (64%)	815 (67%)
Political party		
The Red Party	133 (7%)	29 (2%)
The Socialist Left Party	209 (10%)	80 (7%)
The Labour Party	416 (20%)	335 (28%)
The Centre Party	297 (15%)	244 (20%)
The Green Party	113 (6%)	48 (4%)
The Christian Democrats	61 (3%)	58 (5%)
The Liberal Party	67 (3%)	45 (4%)
The Conservative Party	405 (20%)	221 (18%)
The Progress Party	132 (7%)	75 (6%)

Table A2. Representativeness of the Norwegian Citizen Panel.

		Population		Net sample	
		Men	Women	Men	Women
No education/elementary school	18–29 years	3.7%	2.8%	0.1%	0.1%
Upper secondary education		4.1%	3.1%	0.9%	1.4%
University/university college		2.3%	3.6%	1.1%	1.7%
No education/elementary school	30–59 years	5.3%	4.3%	0.7%	0.5%
Upper secondary education		11.1%	7.7%	7.1%	5%
University/university college		9.5%	12.7%	14.2%	17.7%
No education/elementary school	60 years and above	3.2%	4.4%	1.9%	1.5%
Upper secondary education		7.1%	7.4%	9.3%	6.8%
University/university college		4.0%	3.9%	15.9%	14.1%

Note: Combined distribution of age, gender and education in the population and the net sample, Norwegian Citizen Panel round 21, as described in Skjervheim *et al.* (2021b).

Table A3. Representativeness of the Panel of Elected Representatives (municipal level).

	Population (N = 9344)	Sample (N = 2220)	Bias (percentage points)
Age			
1990 or later	999 (11%)	104 (5%)	-6
1980-1989	1529 (16%)	192 (9%)	-8
1970-1979	2531 (27%)	479 (22%)	-5
1960-1969	2412 (26%)	680 (31%)	+6
1959 or later	1873 (20%)	714 (33%)	+13
Gender			
Women	3782 (40%)	809 (36%)	-4
Men	5562 (60%)	1411 (64%)	+4
Education			
No education	944 (10%)	57 (2%)	-8
Upper secondary education	3571 (38%)	659 (29%)	-10
University/University college	4829 (52%)	1580 (69%)	+17
Party			
The Red Party	193 (2%)	47 (3%)	+1
The Socialist Left Party	459 (5%)	114 (7%)	+2
The Labour Party	2583 (28%)	481 (29%)	+1
The Centre Party	2265 (24%)	331 (20%)	-5
The Green Party	310 (3%)	62 (4%)	0
The Christian Democrats	411 (4%)	88 (5%)	+1
The Liberal Party	264 (3%)	63 (4%)	+1
The Conservative Party	1488 (16%)	290 (17%)	+1
The Progress Party	701 (8%)	98 (6%)	-2
Other	670 (7%)	107 (6%)	-1

Note: Distribution of age, gender, education and party affiliation in the population (all elected representatives at the municipal level) and the sample (at the municipal level), The Panel of Elected Representatives round 5. The Panel of Elected Representatives sample was randomized in two groups, where group 1 consisted of a combination of respondents from all political levels, while group 2 consisted of only municipal representatives. The study is based on group 1, but this table shows the representativity of all the municipal representatives.

Table A4. Attribution of responsibility (OLS).

	Dependent variable:					
	Population			Attributed responsibility		
	(1)	(2)	(3)	(4)	(5)	(6)
Local authorities	0.254*** (0.030)	0.256*** (0.029)	0.167*** (0.037)	0.160*** (0.037)	0.174*** (0.036)	0.165*** (0.036)
Business and industry	0.503*** (0.030)	0.504*** (0.029)	0.324*** (0.037)	0.324*** (0.037)	0.330*** (0.036)	0.329*** (0.036)
National authorities	0.649*** (0.030)	0.650*** (0.029)	0.521*** (0.037)	0.516*** (0.037)	0.523*** (0.036)	0.517*** (0.036)
International community	0.907*** (0.030)	0.908*** (0.029)	0.756*** (0.037)	0.753*** (0.037)	0.753*** (0.036)	0.750*** (0.036)
Gender (female)		0.357*** (0.019)	0.221*** (0.037)	0.221*** (0.025)	0.213*** (0.024)	0.213*** (0.024)
Age (1960–1989)		-0.127*** (0.024)	-0.068 (0.053)	-0.068 (0.053)	-0.067 (0.053)	-0.067 (0.053)
Age (1959 or earlier)		-0.133*** (0.027)				
Education		0.347*** (0.020)	0.226*** (0.026)	0.226*** (0.026)	0.221*** (0.025)	0.221*** (0.025)
Constant	3.406*** (0.021)	2.848*** (0.039)	3.804*** (0.026)	3.400*** (0.066)	3.803*** (0.026)	3.412*** (0.066)
Observations	10,029	9,874	5,690	5,550	5,790	5,645
R ²	0.097	0.163	0.084	0.115	0.084	0.112
Adjusted R ²	0.097	0.162	0.084	0.113	0.083	0.111
Residual Std. Error	0.972 (df = 10024)	0.934 (df = 9865)	0.872 (df = 5685)	0.861 (df = 5541)	0.869 (df = 5785)	0.859 (df = 5636)

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Linear predictions of responsibility attributed to the various actors by the population, local politicians and national politicians. Data from the Norwegian Citizen Panel are weighted. The age variable takes three values: born 1959 or earlier, 1960–1989 and 1990 or later. The gender variable takes the values male and female. The education variable asks about the highest completed education, and originally takes three values: No education/elementary school, Upper secondary education and University/University College. The variable is recoded to take two values: No higher education (No education/elementary school and Upper secondary education) and higher education (University/University college).

Table A5. Distribution of responses.

	Not at all	To a small extent	To some extent	To a large extent	To a very large extent	NA	Total N
International community	NCP 19 (1%)	29 (1%)	175 (9%)	759 (37%)	1031 (51%)	17 (1%)	2030 (100%)
	PER 10 (1%)	14 (1%)	44 (4%)	344 (28%)	746 (62%)	53 (4%)	1211 (100%)
National authorities	NCP 25 (1%)	48 (2%)	316 (16%)	806 (40%)	810 (40%)	25 (1%)	2030 (100%)
	PER 12 (1%)	19 (2%)	135 (11%)	406 (34%)	587 (48%)	52 (4%)	1211 (100%)
Business and industry	NCP 32 (2%)	75 (4%)	435 (21%)	840 (41%)	620 (31%)	28 (1%)	2030 (100%)
	PER 13 (1%)	33 (3%)	182 (15%)	489 (40%)	441 (36%)	53 (4%)	1211 (100%)
Local and regional authorities	NCP 42 (2%)	131 (6%)	535 (26%)	797 (39%)	499 (25%)	26 (1%)	2030 (100%)
	PER 17 (1%)	52 (4%)	265 (22%)	432 (36%)	393 (32%)	52 (4%)	1211 (100%)
Individuals	NCP 66 (3%)	230 (11%)	637 (31%)	673 (33%)	399 (20%)	25 (1%)	2030 (100%)
	PER 18 (1%)	90 (7%)	330 (27%)	382 (32%)	336 (28%)	55 (5%)	1213 (100%)

Note: NA=Not answered, NCP=Norwegian Citizen Panel, PER=Panel of Elected Representatives (1082 municipal politicians, 104 county council politicians, and 25 members of the national parliament).

Table A6. Attribution of responsibility (ordinal logistic regression).

	<i>Dependent variable:</i>					
	Attributed responsibility					
	Population		Local politicians		Local and national politicians	
	(1)	(2)	(3)	(4)	(5)	(6)
Local authorities	0.470*** (0.057)	0.505*** (0.058)	0.333*** (0.078)	0.327*** (0.079)	0.348*** (0.077)	0.339*** (0.078)
Business and industry	0.924*** (0.058)	0.981*** (0.059)	0.634*** (0.078)	0.645*** (0.079)	0.651*** (0.077)	0.659*** (0.078)
National authorities	1.195*** (0.058)	1.271*** (0.059)	1.102*** (0.080)	1.119*** (0.081)	1.109*** (0.079)	1.124*** (0.081)
International community	1.743*** (0.060)	1.844*** (0.061)	1.712*** (0.084)	1.755*** (0.086)	1.706*** (0.083)	1.744*** (0.085)
Gender (female)		0.671*** (0.037)		0.445*** (0.055)		0.427*** (0.054)
Age (1960–1989)		−0.281*** (0.049)		−0.129 (0.119)		−0.130 (0.118)
Age (1959 or earlier)		−0.307*** (0.055)		−0.064 (0.123)		−0.063 (0.122)
Education		0.701*** (0.039)		0.523*** (0.056)		0.513*** (0.056)
Observations	10,332	10,206	5,690	5,550	5,790	5,645

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Ordinal logistic regression of predicted responsibility attributed to the various actors by the population, local politicians, and local and national politicians. Data from the Norwegian Citizen Panel are weighted. The age variable takes three values: born 1959 or earlier, 1960–1989 and 1990 or later. The gender variable takes the values male and female. The education variable asks about the highest completed education, and originally takes three values: No education/elementary school, Upper secondary education and University/University College. The variable is recoded to take two values: No higher education (No education/elementary school and Upper secondary education) and higher education (University/University college).

Table A7. Comparing politicians and the population.

	Attributed responsibility				
	<i>Dependent variable:</i>				
	Individuals (1)	Local authorities (2)	Business and industry (3)	National authorities (4)	International community (5)
Politicians	0.396*** (0.039)	0.316*** (0.037)	0.224*** (0.034)	0.271*** (0.032)	0.243*** (0.029)
Constant	3.406*** (0.024)	3.660*** (0.022)	3.909*** (0.021)	4.055*** (0.019)	4.313*** (0.017)
Observations	3,161	3,163	3,160	3,164	3,171
R ²	0.031	0.023	0.013	0.022	0.022
Adjusted R ²	0.031	0.023	0.013	0.022	0.022
Residual Std. Error	1.069 (df = 3159)	0.998 (df = 3161)	0.931 (df = 3158)	0.873 (df = 3162)	0.781 (df = 3169)

Note: * $p < 0.1$; ** $p < 0.05$; *** $p < 0.01$.

Linear predictions of responsibility attributed to the various actors by the population and politicians, as visualized in Figure 1 in the main text. Data from the Norwegian Citizen Panel are weighted.

Table A8. Local politicians' attribution of responsibility to individuals and local authorities.

Attributed responsibility by local politicians		
	<i>Dependent variable:</i>	
	Individuals (1)	Local authorities (2)
Socialist Left	0.464** (0.206)	0.234 (0.180)
Labour	0.216 (0.184)	-0.296* (0.160)
Centre	0.186 (0.187)	-0.577*** (0.163)
Green	0.461** (0.222)	0.399** (0.193)
Christian Democrats	0.478** (0.214)	-0.220 (0.187)
Liberal	0.473** (0.226)	-0.012 (0.198)
Conservative	0.204 (0.188)	-0.535*** (0.164)
Progress	-1.043*** (0.211)	-1.787*** (0.183)
Constant	3.643*** (0.176)	4.393*** (0.154)
Observations	1,066	1,069
R ²	0.113	0.234
Adjusted R ²	0.107	0.229
Residual Std. Error	0.932 (df = 1057)	0.813 (df = 1060)

Note: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$.

Table A9. The voters' attribution of responsibility to individuals and local authorities.

Attributed responsibility by voters		
	<i>Dependent variable:</i>	
	Individuals	Local authorities
	(1)	(2)
Socialist Left	0.740*** (0.109)	0.830*** (0.097)
Labour	0.712*** (0.089)	0.662*** (0.079)
Centre	0.140 (0.093)	-0.065 (0.083)
Green	0.827*** (0.119)	1.145*** (0.106)
Christian Democrats	0.708*** (0.169)	0.577*** (0.151)
Liberal	0.239* (0.137)	0.359*** (0.122)
Conservative	0.392*** (0.090)	0.347*** (0.080)
Progress	-0.155 (0.109)	-0.365*** (0.098)
Constant	3.061*** (0.072)	3.362*** (0.064)
Observations	1,814	1,813
R ²	0.088	0.168
Adjusted R ²	0.084	0.165
Residual Std. Error	1.020 (df = 1805)	0.911 (df = 1804)

Note: * $p < 0.1$ ** $p < 0.05$ *** $p < 0.01$.