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The politicisation of climate change attitudes in Europe

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ABSTRACT

Do voters for different parties have distinct climate attitudes because of their positions on other issues? With European Social Survey (ESS) data, we find that in Western (but not Central and Eastern) Europe there is a linkage between left-right self-placement and climate attitudes that cannot be accounted for by economic egalitarianism or liberal cultural attitudes. That linkage partly but not fully accounts for why voters for different party families have different beliefs and worries about climate change. Green party voters are more climate conscious than other voters with similar left-wing identities and political values. Not only Populist-Right but also mainstream Conservative party-family voters are less worried about climate change than their left-right orientations and other political values suggest. While Western European countries nearly all follow the same pattern, there is no consistent structure in Central and Eastern European countries. Across Europe non-voters are less worried about climate change than voters.

1. Introduction

Beliefs and attitudes to climate change have become increasingly politicised in the United States (US) of America from the early 2000s onwards, with Democratic and Republican supporters appearing to follow the diverging cues from their respective parties (Dunlap et al., 2016). For Europe, political party divides about climate change also exist but they appear to be weaker and their structure is less clear. This research note assesses the extent to which climate attitudes are associated with left-right orientations, political values and party-family voting in Europe. As part of this we consider whether the association between climate attitudes and left-right orientations can be accounted for by the structure of political values on other issues. Similarly, we examine whether the links between climate attitudes and party-family voting can be accounted for by left-right orientations or political values. That is, whether left-right and either first or second-dimension political values adequately summarise or capture the tendency for people with different climate attitudes to vote for different parties, or none.

In Western Europe, but not Central and Eastern Europe, previous research shows that those who think of themselves as on the left, rather than right, of the political spectrum are more likely to be climate conscious, in the sense of believing in and caring about climate change (McCright et al., 2016; Poortinga et al., 2019). But what self-placement on the left-right scale means is not entirely clear. Left and right are political labels and identities, and their ideological content is a mix of economic and cultural values (Knutsen, 1995). In the two-dimension framework the first is economic, while the second 'new politics' dimension theoretically encapsulates various cultural issues, including immigration, gender, moral-traditionalism, European integration and the environment/climate change (Knutsen, 2018, Chapter 3). Research in this framework either subsumes climate attitudes into a larger index or omits them entirely. The empirical basis for doing either is thin however. Recent research suggests that environmental and climate change items load onto separate dimensions from other new politics issues (Kenny, 2021; Wheatley and Mendez, 2021).

Whether climate consciousness has come to be part of what it means to be on the 'left' in Europe, or is directly linked in some other way, depends partly on whether the association between left-right orientations and climate attitudes can be accounted for by positions on other issues from the two-dimensional framework. If the climate-left-right linkage cannot be so accounted for, then climate change has been politicised in the sense of becoming, in its own right, part of the left-right spectrum, traditionally the main dimension of European politics. One contribution of this research note is to show that in Western Europe left-

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right self-placement is correlated with climate consciousness in a way that cannot be accounted for by either economic egalitarianism or by non-environmental elements of the 'new politics' second-dimension.

Regarding political party support, previous comparative research points to distinct climate attitudes of Green and Populist-Right party supporters. However, the literature is still in its infancy when it comes to its relationship with mainstream parties (Farstad, 2018). For instance, it is not clear from previous research whether voters for Social Democratic parties have more climate conscious attitudes than voters for mainstream Conservative parties. We assess that and a range of other hypotheses regarding the association between climate attitudes and voting for particular party families, and non-voting. Furthermore, we consider whether patterns of association between voting and climate attitudes can be accounted for by left-right orientations and/or political values on other issues. Some parts of the pattern can, but some cannot.

This note follows a traditional structure of theory, method, results and then conclusion.

2. Theory, background and previous research

There is a left-right divide in climate change attitudes, with right-wing individuals being more climate sceptic than left-wing individuals (Santos and Feygina, 2017). This is reflected in party systems, with some traditional parties — especially those on the far left given the weakening of traditional class voting that they relied on — having re-orientated their appeals during the second half of the twentieth century to include environmentalism as well as other "new politics" issues (Clark et al., 1993). Greater environmentalism of left-wing parties itself may have further weakened class voting patterns as more environmentally concerned voters in turn supported left-wing parties (Achterberg, 2006).

While individuals may vote based on how well parties represent their own issue preferences, they may alternatively update their preferences and beliefs towards those of their most preferred party, especially on issues they do not have strong opinions on (Carsey and Layman, 2006). If climate change is politicised at the elite level and party platforms diverge, one would thus expect that such polarisation would also extend to their voters. Since there may be reciprocal causation between left-right orientations and climate attitudes, our research design is focused on the pattern of association and not the direction of causality.

The majority of the literature on the politicisation of climate change and global warming focuses on the US and provides evidence for elite-driven changes in attitudes. While the difference in climate attitudes between Democrat and Republican supporters was modest at the turn of the 21st century, by the end of the decade the gap had opened up considerably with Republican supporters becoming more climate sceptic and Democrat supporters becoming more supportive following continued polarisation at the elite level (Dunlap et al., 2016; Guber, 2013). In addition to following one's own party cues, polarisation may also be particularly motivated by both Republican and Democrat supporters reactively devaluing climate change information coming from the other party (Merkley and Stecula, 2018; Van Boven et al., 2018). Evidence of such polarisation has also been found in Australia using 2010 and 2011 data (Tranter, 2013). Comparatively, analysis of 2010 International Social Survey Programme data suggests that such left-right polarisation on climate attitudes is particularly pronounced in anglophone countries (Smith and Mayer, 2019).

McCright et al. (2016), using Eurobarometer data from the spring of 2008, show that in Western Europe right-identifying individuals are less likely to believe in anthropogenic climate change than left-identifying individuals. However, they found no such association for individuals in former Communist countries. Poortinga et al.'s (2019) analysis of 2016/2017 ESS data comes to similar conclusions. These results are in line with other work conducted in post-Communist countries, showing that even twenty years after the fall of the Iron Curtain broader environmental attitudes had not converged with those of Western Europe or become entrenched within the party system, which is attributed to a continued post-Communism effect (Chaisty and Whitefield, 2015). The results are also in line with work that demonstrates that the left-right ideological divide is understood differently in the two European regions (Thorisdottir et al., 2007). Given the strong relationship between leftist orientations and liberal values (Flanagan and Lee, 2003), the question remains as to whether any association between left-right self-placement and climate change attitudes can be explained by individuals' liberal, and perhaps economic, values or whether it remains once these are accounted for.

We derive the following hypotheses:

H1. More left-wing self-placement is associated with stronger belief in anthropogenic climate change and more worry about climate change.

H2. The associations between left-right self-placement and both belief in anthropogenic climate change and worry about climate change are stronger in Western Europe than in Central and Eastern Europe.

The political party system in Europe is much more fragmented than in the US, with multiple parties competing against each other. Parties in Europe can often be described as crudely left or right. Those who feel close to right-wing parties do display greater opposition towards carbon taxes (Levi, 2021) and greater levels of climate/environmental scepticism (Tranter and Booth, 2015) for instance.

There are, however, subtler typologies, especially party families (see Mair and Mudde, 1998 for a review), which may be related to climate change politicisation. Analysis of manifestos by Farstad (2018) shows that between 2009 and 2013 parties of the left paid more attention to climate change than those on the right, but also that there was variation between party families within each side of the political spectrum. Across 21 highly industrialised democracies, Jahn (2022) shows that participation of different party families in government is associated with different patterns of change, from 1990 to 2018, in greenhouse gas emissions. Furthermore, with evidence of supporters of different party families having distinct environmental protection attitudes (Knutsen, 2018; Kenny and Langsæther, 2022/In Press), we expect that voting for a particular party family will relate to one's climate change beliefs and attitudes.

In the following discussion of reasons to expect voters for different party families to have different climate attitudes, we appeal sometimes to particular features of those families but also sometimes to general positioning of the party family on the left-right spectrum or within the two-dimensional framework. Given the range of theoretical motivations, it becomes important to consider whether any distinctive climate attitude profile for a party-family's voters can be accounted for by left-right orientations or positions on our non-environmental political values.

We expect that Green party voters will show the highest levels of climate change belief and concern as combatting climate change is at the core of Green party ideology:

H3. Green party voters have higher levels of anthropogenic climate change belief and worry about climate change than voters of any other party family.

The next party families we consider are those of the Left-Socialists and Social Democrats. Traditional left-wing parties have been shown to place more emphasis on environmental issues in response to the threat of competition from Green parties, especially when the salience of environmental issues rises (Spoon et al., 2014). This may benefit the mainstream party if the Green party competitor is relatively new, but backfire if the Green party is more established (Grant and Tilley, 2019). Such a strategy is in contrast to mainstream right-wing parties who are more likely to de-emphasise green issues when faced with electoral gains by Green parties (Abou-Chadi, 2016). In Eastern Europe, the 'new politics' dimension may not yet have been integrated into the system (Rohrschneider and Whitefield, 2012). In Western Europe, despite the affinity between the left and environmental issues, some left-wing parties find it difficult to successfully balance positions on climate

change and various 'new politics' issues with traditional left-wing economic policies that may conflict with them. Left-Socialist parties may be particularly affected by the need to balance 'new politics' issues with traditional left-right ones given that Left-Socialist parties have placed a special emphasis on 'new politics' issues in addition to traditional leftist values of equality, and have a greener policy profile than Social dDemocratic parties (Wang and Keith, 2020). Indeed, participation of such parties in government is associated with lower greenhouse gas emissions (Jahn, 2022). By contrast, Social Democrat parties have historically placed more emphasis on the economic left-right dimension (Knutsen, 2018). The greater emphasis of the Left-Socialist parties on new politics issues appears to be reflected in higher levels of environmentalism among their voters than among Social Democrat voters, according to analysis of 2008 European Values data (Knutsen, 2018). Thus, we hypothesise that:

H4. Left-Socialist party voters have higher levels of belief in anthropogenic climate change and worry about climate change than Social Democrat voters.

A right-wing conservative ideology may be conducive to downplaying the role of humans in causing climate change (Santos and Feygina, 2017). The role of Christianity and its association with conservatism provides an extra rationale for expecting right-wing Christian party voters to be more climate sceptic. While Judeo-Christian theology may encourage environmental stewardship, with humans as caretakers of the planet, the doctrine may lead individuals to see God as an intervening agent in causing climate change, which may reduce their sense of human responsibility for it (Sachdeva, 2016). Analysis by Arbuckle and Konisky (2015) in the US suggests the latter. We thus hypothesise:

H5. Conservative and Christian party voters have lower levels of belief in and worry about anthropogenic climate change than voters of left-wing parties.

However, we expect voters of another party family to show the very lowest levels of belief in climate change. Populist-Right parties express particularly high levels of climate scepticism. There are reasons for their ideology fitting particularly well with climate scepticism beyond what might be expected of a mainstream conservative individual. Populist-Right platforms are based on a mix of authoritarian and nationalistic values combined with anti-elitism. From the former they may come to regard climate change as a part of a cosmopolitan elite agenda, while anti-elitism may also produce a lack of trust in scientific experts (Fairbrother, 2017; Lockwood, 2018). Using the 2016/2017 ESS data, Kulin et al. (2021) show that such voters are more likely to be sceptical about climate change as compared to all others that did not vote for them. We thus hypothesise:

H6. Populist-Right party voters have lower levels of belief in and worry about anthropogenic climate change than voters of any other party family.

Finally, we expect non-voters to have lower levels of climate consciousness than voters for left-parties. Two of the key predictors of non-voting are having lower levels of education and low socio-economic status (Smets and van Ham, 2013). Historically these groups have tended to vote for left-parties (Dalton, 2019). But, as discussed above, left-parties are now more associated with climate-conscious policy, while low education and low status are associated with lower belief in climate change (Pearson et al., 2017). Perhaps because of cross-pressures for those groups, and also because of more general processes of alienation and apathy (Dalton, 2019), non-voters are expected to exhibit less climate consciousness than voters for left-parties. As partial confirmation, non-voters have previously been shown to have similar levels of non-belief in climate change to Conservative voters in analysis of 2010 British data (Poortinga et al., 2011). This result may extend to other European countries.

H7. Non-voters have lower levels of belief in and worry about anthropogenic climate change than voters for left-wing parties.

We refrain from stating a hypothesis for Liberal party voters, because Liberal parties vary between countries according to the extent to which they are primarily economically or culturally liberal, and thus where they sit on the left-right political spectrum (van Haute and Close, 2019) and on environmental issues specifically (Pollex and Berker, 2022). We therefore would not expect a consistent finding in relation to the climate consciousness of Liberal voters.

3. Data and methodology

This paper uses data from a special module of questions on energy and climate change from the European Social Survey (ESS) Round 8 which was conducted in late 2016 and early 2017 (European Social Survey, 2016). Not only is the ESS especially valuable for its high-quality sampling and data collection, with face-to-face interviews from random probability samples, but no other survey covers as many European countries with a broad suite of questions on climate change, political values and vote choice. After excluding Russia and Israel for theoretical reasons, the ESS covers 15 Western and 6 Central and Eastern European countries.

To allow for the possibility of politicisation of some aspects of public opinion towards climate change more than others (for example as in Gregersen et al. (2020)) we do not develop a summary indicator of climate consciousness but focus our empirical analysis on three key indicators. Our first dependent variable ("Climate Change Belief") asks respondents if they think that climate change is caused by natural processes, human activity or both (ranging from 1. entirely natural processes to 5. entirely human activity). Given the ESS introduces climate change to respondents as, "due to increases in temperature over the past 100 years," and given that the Intergovernmental Panel on Climate Change (2014) best estimate was that the human contribution was the same as the observed global warming, it is appropriate to keep "entirely human" as the top category of the strength of belief. Our second dependent variable ("Climate Change Worry") asks respondents how worried they are about climate change (ranging from 1. not at all worried to 5. extremely worried). These two indicators of climate consciousness are core to the concept and their socio-demographic correlates and patterns of cross-national variation are well researched (Poortinga et al., 2019). Analysis of a third dependent variable ("Climate Change Impact") is reported in supplementary Appendix A.

Respondents who said that the climate is definitely not changing, didn't know or refused were coded as missing. Supplementary Appendix C shows that including climate change deniers (with the most sceptical group) would slightly strengthen the results.

For individuals' left-right orientations, we use respondents' self-placement on a scale from 0 (left) to 10 (right).

Since most ESS respondents did not feel "close" to any political party, our measure of party affiliation is based on which party respondents voted for in the last general election. Parties are coded into families as described in Supplementary Appendix D which includes a country-by-country breakdown for how voters of each party and party family responded to the climate change questions.

Variables we refer to as "Political Values" include questions on whether the government should reduce income differences ("Income egalitarianism"), whether men should have a greater right to jobs than women when jobs are scarce ("Gender egalitarianism"), and whether gay and lesbian couples should have the same rights to adopt children as straight couples ("Sexuality egalitarianism"). All these had response scales ranging from 1. agree strongly to 5. disagree strongly. Since the original questions were not all worded in same 'pro-left' or 'pro-liberal' direction, some were re-coded in this direction. The Political Values set also includes a question on whether more or fewer immigrants from poorer countries outside of Europe should be allowed to come and live in

the respondents' country ("Anti Extra-European immigration") on a scale from 1. allow many to 4. allow none.

Our regression models do not have a causal interpretation. Instead, we use such models to elucidate marginal and partial relationships. Our research questions are about partial associations holding constant certain other attitudes, but not holding constant socio-demographics. To include them would result in us addressing different research questions.[1] We leave to future research the question of whether our results can be accounted for by social-demographic differences. However, supplementary Appendix E, with additional controls for sex, income, education and age, suggests not, with the minor exception that the effect of being not eligible to vote becomes insignificant in the beliefs model.

4. Results

Table 1 shows that across Western Europe, the more people place themselves towards the left of the political spectrum the more they attribute climate change to human activity and worry about it, both before and after controlling for political values. Thus, hypothesis H1 is accepted for Western Europe. The same is true for Central and Eastern Europe with respect to worry but not belief about climate change.

Additional analyses in supplementary Appendix A (Table A1) show that those who place themselves further to the left expect climate change to have a worse impact on people around the world, both before and after controlling for our set of political values, and in Central and Eastern as well as Western Europe. Table B1 in Supplementary Appendix B contains pooled models with interaction effects confirming that the associations between left-right self-placement and each of our dependent variables is stronger in Western than in Central and Eastern Europe, except for climate change worry after controlling for political values. Country-by-country models (not shown here) suggest that exception is driven by Poland alone. Moreover, the tendency for belief in anthropogenic climate change to be more common among left-wingers is statistically significant in thirteen out of the fifteen West European countries but not in any of the Central and Eastern European ones. Thus, hypothesis H2 is supported by the data.

Table 2 confirms that voters for traditionally left-wing party families tend to think of themselves as more left-wing. Similarly, voters for parties of the left are more likely than those for parties of the right to think that climate change is at least mainly if not entirely human made and to be very or extremely worried about it. The ordering of party families according to the left-right self-placement of their voters is not quite the same however as the ordering by climate change belief and worry.

Table 2
Left-right position, human climate change belief, and climate change worry, by party family.

Left-right mean[a]		% climate change mainly or entirely human		% very or extremely worried about climate change	
Communist	2.6	Green	67	Green	56
Left-Socialist	2.7	Protest	62	Left-Socialist	52
Green	3.6	Left-socialist	60	Communist	50
Social Democrat	3.7	Communist	56	Protest	39
Ethnic	4.6	Not Eligible to vote	56	Social Democrat	38
Not Eligible to vote	4.8	Social Democrat	49	Ethnic	38
Pensioners	4.9	Other	48	Christian	34
Did not vote	4.9	Ethnic	47	Not Eligible to vote	33
Other	5.0	Liberal	46	Other	32
Liberal	5.2	Christian	45	Liberal	30
Christian	5.3	Did not vote	44	Did not vote	27
Protest	5.4	Conservative	39	Conservative	26
Agrarian	5.6	Pensioners	39	Populist-Right	20
Conservative	6.6	Populist-Right	35	Pensioners	17
Populist-Right	6.8	Agrarian	31	Agrarian	15
Average	**5.0**	**Overall**	**47**	**Overall**	**32**

Note:
[a] scale ranges from 0 (left) to 10 (right). Data weighted to country population size.

For Western Europe, Table 3 tests for differences between party families in the climate consciousness of their voters. The differences are largely in the expected directions and most of the comparisons with the baseline Social Democrats are statistically significant. Thus, for Western Europe, all of the hypotheses from H3 to H6 about party family differences are accepted, albeit H4 only partially (with Communist, but not Left-Socialist, voters statistically significantly more worried about climate change than Social-Democrat voters). Hypothesis H7 regarding

Table 1
Ordered-logit regressions of human climate change belief and climate change worry on political values.

	Climate Change Belief				Climate Change Worry			
	Western Europe		Central and Eastern Europe		Western Europe		Central and Eastern Europe	
	Coef. (s.e.)	Coef. (s.e.)	Coef. (s.e.)	Coef. (s.e.)	Coef. (s.e.)	Coef. (s.e.)	Coef. (s.e.)	Coef. (s.e.)
Left-Right	−0.10***	−0.05***	−0.01	−0.00	−0.11***	−0.05***	−0.07***	−0.05**
	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.02)	(0.02)
Political Values:								
Income egalitarianism		0.05**		0.03		0.18***		0.02
		(0.02)		(0.04)		(0.02)		(0.04)
Gender egalitarianism		0.21***		0.22***		0.13***		0.13***
		(0.02)		(0.03)		(0.02)		(0.03)
Sexuality egalitarianism		0.08***		−0.01		0.11***		0.07*
		(0.02)		(0.03)		(0.02)		(0.03)
Anti Extra-European immigration		−0.15***		0.04		−0.24***		−0.21***
		(0.02)		(0.05)		(0.02)		(0.04)
BIC	62,078	61,450	9180	9152	71,547	70,555	10,462	10,420
N. of cases	23,945	23,945	8118	8118	24,101	24,101	8171	8171

Notes: *$p < 0.05$, **$p < 0.01$, ***$p < 0.001$. Parameter estimates for cut points and country dummies not shown.

[1] See Langsæther (2019) who carries out a similar approach when examining the relationship between class voting and environmental – among other - values.

Table 3
Ordered-logit regressions of human climate change belief and worry about climate change on party family and political values, Western Europe only.

	Climate Change Belief		Climate Change Worry	
	Model 1	Model 2[a]	Model 3	Model 4[a]
	Coef. (s. e.)	Coef. (s. e.)	Coef. (s. e.)	Coef. (s. e.)
Party family (base = Social Democrat)				
Left-Socialist	0.13	−0.02	0.17	−0.00
	(0.11)	(0.12)	(0.10)	(0.10)
Communist	0.22	0.09	0.35*	0.21
	(0.14)	(0.14)	(0.16)	(0.15)
Agrarian	−0.28*	−0.07	−0.30**	−0.08
	(0.13)	(0.14)	(0.11)	(0.12)
Conservative	−0.33***	−0.08	−0.55***	−0.25***
	(0.07)	(0.08)	(0.07)	(0.07)
Christian	−0.28***	−0.10	−0.34***	−0.13
	(0.08)	(0.08)	(0.08)	(0.08)
Liberal	0.14	0.22**	−0.11	0.02
	(0.08)	(0.08)	(0.08)	(0.08)
Protest	0.19	0.28	0.07	0.17
	(0.18)	(0.18)	(0.16)	(0.16)
Green	0.57***	0.45***	0.70***	0.58***
	(0.09)	(0.09)	(0.10)	(0.10)
Ethnic	−0.08	−0.05	−0.19	−0.17
	(0.15)	(0.15)	(0.15)	(0.15)
Populist-Right	−0.41***	−0.12	−0.63***	−0.30**
	(0.10)	(0.10)	(0.09)	(0.10)
Pensioners	−0.25	−0.17	−0.69*	−0.61*
	(0.66)	(0.64)	(0.31)	(0.28)
Other	−0.17*	−0.08	−0.31***	−0.20**
	(0.07)	(0.07)	(0.07)	(0.07)
Not Eligible	0.29***	0.33***	−0.17*	−0.13
	(0.08)	(0.08)	(0.08)	(0.08)
Did not vote	−0.09	0.03	−0.44***	−0.30***
	(0.07)	(0.07)	(0.06)	(0.07)
Left-Right		−0.05***		−0.03**
		(0.01)		(0.01)
Income egalitarianism		0.06**		0.18***
		(0.02)		(0.02)
Gender egalitarianism		0.21***		0.13***
		(0.02)		(0.02)
Sexuality egalitarianism		0.07***		0.10***
		(0.02)		(0.02)
Anti extra-European immigration		−0.13***		−0.22***
		(0.02)		(0.02)
BIC	62,098	61,407	71,434	70,438
N. of cases	23,945	23,945	24,101	24,101

Note: Parameters for cut-points and country dummies in the models but not shown.
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.
[a] With controls for left-right and various value positions.

non-voters, is accepted with respect to impact-expectations and worry about climate change, but not with respect to beliefs about the anthropogenic nature of the problem. Further analysis in Appendix A suggests this is because non-voters expect the impact of climate change to be less bad.

Since Table 2 suggests much of the variation between party families in the climate consciousness of their voters is to do with how left-wing those voters are, Models 2 and 4 in Table 3 consider the extent to which party family differences can be accounted for by left-right self-placement and various indicators of political values. Unsurprisingly, the tendency for Green party voters to be more climate conscious voters than Social Democrat voters is not due solely or primarily to the Green party voters being more left-wing or liberal on various issues. But it was not at all clear *a priori* that Conservative and Populist Right voters, and even non-voters, should be noticeably less worried about climate change even after controlling for left-right and liberal value positions.

Table B2 in Appendix B for Central and Eastern Europe shows Agrarian parties are the only family whose voters report a significantly weaker climate change belief and worry compared to Social Democrat voters. After that, there are simply too few parties in each family to draw any general conclusions or, more commonly, no systematic differences between party families in Central and Eastern Europe.

Table B3 and associated commentary in Supplementary Appendix B shows that the overall patterns for Western Europe in Tables 2 and 3 are largely consistent across individual countries within that region. Also, while there are party differences in individual Central and Eastern European countries, they do not conform to a consistent regional pattern.

5. Conclusion

To summarise, beliefs and worry about climate change are correlated with left-right self-placement in Western Europe in a way that cannot be accounted for by economic egalitarianism or various other political values. That climate science is not equally widely believed by voters from different parts of the political spectrum is an especially strong sign that climate change has become politicised at a mass level in Western Europe.

A further indication of the politicisation of climate change in Western Europe is that people with different opinions on it vote for different parties. Most obviously, voters for Green parties are more climate conscious than voters for other parties whose voters have similar economically left and socially liberal stances. Less obviously, and at the other end of the spectrum, mainstream Conservative as well as Populist-Right party voters are less worried about climate change than could be predicted from their more right-wing and socially conservative attitudes alone.

We find that party differences in worry about climate change are stronger than those in beliefs about the extent to which climate change has been caused by humans. This is as we would expect if climate science has been well communicated leaving less room for variation in beliefs about the causes of climate change than in worry about it. Our analysis of belief in anthropogenic climate change is a relatively tough test of politicisation of climate consciousness, especially by comparison with self-reported worry about climate change.

These patterns are largely consistent across Western European countries. While there are differences between parties in each of the six Central and Eastern European countries we studied, there is no consistent pattern across the region. One finding that is true of nearly all European countries is that those who did not vote are less worried about climate change. This is in line with research showing they are more apathetic and even alienated from the political process (Dalton, 2019).

The degree of party polarisation on climate change at the mass level (the kind this paper identifies) matters for politics and policy making. When, as we have found, two-thirds of Green party voters believe climate change is mainly or entirely caused by humans, but only one-third of Populist Right voters, it could be hard for their elected representatives to reach consensus on climate action. Gaps between larger more centrist and moderate parties are smaller, but still although 38% of Social Democrat voters are very or extremely worried about climate change, just 26% of mainstream Conservative voters are. This is a much smaller gap than between Republican and Democrat voters in the USA (Tesler, 2018), but not an inconsiderable one.

We have not attempted to identify the underlying causal mechanisms, but this should be a priority for further research. It might be that voters choose parties based on their climate change policies or it might be that party elites affect the climate consciousness of their voters (Dunlap et al., 2016; Krosnick et al., 2000), perhaps both, and perhaps differently in different countries according to political history and institutions. Future research should also assess whether the rise in concern about climate change since the ESS survey (Barasi, 2020) has increased the politicisation of climate change.

Data availability

Data will be made available on request.

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Appendix A. Supplementary data

Supplementary data to this article can be found online at https://doi.org/10.1016/j.electstud.2022.102499.

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