Another sleeping giant? Environmental issue preferences in the 2019 European Parliament elections

Leonardo Puleo, Daniela Braun, Ann-Kathrin Reinl & Eftichia Teperoglou

Published online: 29 Aug 2024.

View supplementary material

Submit your article to this journal

Article views: 1517

View related articles

View Crossmark data

Citing articles: 4 View citing articles

Routledge
Taylor & Francis Group

Another sleeping giant? Environmental issue preferences in the 2019 European Parliament elections

Leonardo Puleo[a] (iD), Daniela Braun[b] (iD), Ann-Kathrin Reinl[c] (iD) and Eftichia Teperoglou[d] (iD)

[a]School of Politics and International Relations, University College Dublin, Dublin, Ireland; [b]Saarland University, Saarbrücken, Germany; [c]European University Institute, Florence, Italy; [d]School of Political Sciences, Aristotle University, Thessaloniki, Greece

ABSTRACT
Seminal works have highlighted a growing polarisation regarding the environment, with supporters advocating for immediate emissions reduction and others downplaying or even denying human-caused climate change. Despite this debate, little attention has been focused on how voters' environmental preferences influence their electoral behaviour. Using the metaphor of the 'sleeping giant' from European Union politics literature, the article empirically explores how environmental issue preferences impact voting choices. Analysing stacked data from the 2019 European Election Study, the article examines the phenomenon of environmental issue voting by shifting the unit of analysis from individuals to party-voter dyads. Results reveal that environmental preferences moderately, yet significantly, affect vote choice. This effect is more pronounced among left-leaning voters and in countries where the environmental issue is more salient among the public. Our findings shed light on patterns of environmental preference and their role in European electoral competition.

Environmentalism and climate protection policies are becoming increasingly important and visible in global, local and European politics. This is certainly related to the fact that expert scientific reports published by the Intergovernmental Panel on Climate Change call for immediate political action to mitigate climate change.[1] Moreover, together with the European Green Deal, the European Commission has put the fight

---

against climate change at the top of the European agenda. Finally, the experiences of extreme floods and wildfires in different European regions over the last years seem to have made climate change more tangible for many Europeans. Therefore, a large majority of the European citizenry appears convinced that climate change represents a serious problem (European Commission 2021). However, and despite the continuing development of environmental movements across the world, there is a growing polarisation among political parties and citizens around the issue.

For a long time, conferences like the COP26, 27 and 28 summits in Glasgow, Sharm el Sheikh and Dubai respectively, alongside the efforts of supranational and international organisations, have been considered crucial for setting common standards for states to achieve climate-related goals like emissions reductions. However, such agreements are jeopardised when the main actors in European representative democracies – political parties as well as their voters – are not fully convinced by these proposals. From several empirical studies, we know that non-green political parties seem to be particularly reluctant with regard to environmental policy proposals (Carter *et al.* 2018; Spoon and Williams 2022). This reluctance has substantive implications given that many of these political actors have the power to make their voices heard in this regard for at least two reasons (Leinaweaver and Thomson 2016; Lundquist 2022). First, political parties constitute part of all relevant institutions in the political decision-making procedures of representative democracies. Therefore, they are 'crucial in crafting effective national climate policies in democratic states' (Lundquist 2022: 1). This is true not only when we look at governing parties, but also considering the role of opposition actors in pushing the environmental issue to the top of the domestic agenda (Seeberg 2016). Second, not only can effective policies be designed and implemented by political parties, the citizenry can also be influenced by these actors through the latter's work in making these issues salient for a wider public, thereby helping to make the citizenry more fully aware of the topic. In the case of environmentalism – particularly when it comes to an issue of such far-reaching importance as that of climate change – one would expect a clearly discernible attention to this issue on the part of political parties across the board. However, this is not automatically the case, because political parties do not only deal with societal issues because of their sheer scientific relance. We know, from research on issue emphasis (Budge and Farlie 1983), that party representatives tend to weigh up and then prioritise those issues they believe will pay off for them in terms of garnering votes. Therefore, it is mainly green parties that highlight environmental issues, because their representatives believe they can benefit from explicitly focusing on these, whereas most other parties tend to employ dismissive strategies (Abou-Chadi 2016; Carter 2013; Green-Pedersen 2019). This in turn

leads to the empirical observation that political parties in general do not accord a great deal of salience to this issue (Farstad 2018; Little 2023).

Looking at the citenzry, we can see a noticeable increase of salience in the public sphere regarding environmental concerns since the late 2010s (Kenny and Langsæther 2022) and that Europeans recognise climate degradation as a serious problem (European Commission 2021; Schwörer 2023).[2] Additionally, following the wave of mass mobilisation, particularly of younger people, brought about in part by movements like Fridays For Future, Extinction Rebellion, Just Stop Oil and others; Eurobarometer data has registered a pronounced increase in environmental issue salience after 2019 across the European citizenry (Puleo 2023). However, such evolution seems to be negatively affected when more tangible costs accompany the measures proposed to mitigate climate change degradation (Garton Ash *et al.* 2020; Broomell *et al.* 2015; Campbell *et al.* 2021; Goldberg *et al.* 2021).

We can thus act on the assumption that climate change mitigation and (more generally) environmental politics are increasingly important political issues for European voters. This is highlighted by the fact that environmental issue preferences were among the main issues which had the power to mobilise the European citizenry in the 2019 elections to the European Parliament (EP) (Braun and Schäfer 2022). However, it is still unclear whether we can speak of a highly relevant political issue that is also one of the factors underlying voting patterns. Accordingly, the main objective of this paper is to analyse the relevance of environmental preferences for voting behaviour. In particular, we attempt to expand recent research on the potential impact of the environmental issue on electoral behaviour by analysing whether issue proximity between voters and parties on the environmental issue is a key driver for people's actual voting choices.

By examining this linkage, we discern whether the environmental issue could be considered as a new 'sleeping giant' (van der Eijk and Franklin 2004) finally awakening in the European political sphere. Here we borrow a metaphor which has been used to characterise the increasing importance of the process of European integration on member states' national political arenas. The sleeping giant metaphor symbolised the tendency for Europeanisation to become increasingly relevant in domestic politics across EU member states without, however, markedly affecting voting behaviour of the European citizenry for a long period. This pattern, however, started to change in the late 2000s – awakening the sleeping giant (de Vries 2010; Green-Pedersen 2012) – as a consequence of both the increasing 'constraining dissensus' (Hooghe and Marks 2009) over European integration and the higher levels of politicisation of Europe in the national (Hutter *et al.* 2016) and EU electoral arenas (Braun and Edgar 2021).

In a similar vein, we suggest that European countries are witnessing increasing politicisation and polarisation on the environmental issue inside and outside the EU context – not only among political elites but also among the electorate. This trend was first observed in the US context (see among others Campbell *et al.* 2021; Weaver 2002). Nevertheless, further comparative studies have detected similar trends in the context of the EU (Birch 2020; Kenny and Langsæther 2022). For example, climate change has emerged as one of the most polarising issues across European countries, along with the issue of immigration (Herold *et al.* 2023). However, this pattern is not uniform and tends to be less evident in post-communist EU member states (see Birch 2020: 713).

This article poses the question of whether the increasing politicisation of on the environmental issue in Europe has the potential to 'awaken' the electorate in a similar way as occurred over the past decade with the EU dimension. Additionally, we test whether the relevance of this issue in voting behaviour is mediated by the positions of political entrepreneurs. Specifically, we test whether the party-voter distance on the environmental issue might increase its relevance for voting behaviour.

The findings of our study show that preferences on the environmental issue have a small – but significant – effect on vote choice. Moreover, this effect is more noticeable for leftist than for rightist voters and increases in countries where the issue is more salient among the public. These findings are highly relevant not only for future studies within the field of environmental politics, but also for the scholarly research on EP elections and European politics.

The article is organised as follows. Next section analyses the background to the study of the environmental issue from the *supply side* of political competition. Then, we review existing studies on public opinion and present our research hypotheses. Section on data and research design introduces our dataset, discussing our modelling strategy and concepts' operationalisation while the section deals with the empirical investigation of our study, which is based on an analysis of the comparative post-electoral evaluation of the stacked version of the European Election Study (EES) of 2019 (Carteny *et al.* 2022). We then proceed to the discussion of our findings and conclude the article with some final remarks.

The environmental issue and the supply side of political competition

In European democracies, action to mitigate climate change is often hindered or at least delayed by the way party competition is structured, as well as being a result of the demanding processes of democratic deliberation and the need to take social and economic constraints into

account. One of the problems in achieving the EU's agreed climate-change mitigation goals lies in the lack of coordination. Essential policies (in particular energy policies) are taken mostly at the national level, which means that attempts to implement climate policies will likely face problems for policymakers trying to undertake collective and supranational actions. Furthermore, the policy measures taken in most European countries are currently not as far-reaching as would be necessary[3] (Adam and Tsarsitalidou 2019; DIW-Econ 2021; Kachi *et al.* 2015; Weidner and Mez 2008). For example, most measures for reducing greenhouse gas emissions in the EU are being taken in the power sector and to a lesser extent in sectors such as transportation and construction (see Pisani-Ferry *et al.* 2023). In addition, the complex EU multi-level structure of governance tends to hinder the implementation of large transformations.

Therefore, more consensus is needed between political and societal actors from different levels of politics (local, national and supranational) to effectively combat climate change (Cole 2015). However, in contrast to civil society actors, such as environmental organisations and social movements (de Moor *et al.* 2021; Marquardt 2020), political parties do not generally engage with the fight against climate change. It has been shown that political parties are not very likely to highlight environmental issues in their electoral programmes[4] (Farstad 2018; Lüth and Schaffer 2022) – at least not in all EU countries (Wang and Keith 2020). One important question therefore is why political parties are not putting more emphasis on environmental issues when the scientific consensus is that climate change is real and anthropogenic (Cook *et al.* 2013) and requires appropriate political answers (IPCC 2021).

In our view, issue emphasis theory (Budge and Farlie 1983; Petrocik 1996) could be highly insightful here. European mainstream parties might choose not to compete over these issues for strategic reasons, for example because they may not see themselves as 'issue owners' or because they lack realistic policy proposals in the context of environmental politics. The former is related to the fact that green parties are still identified as the owners of the environmental issue (Dolezal 2010; Müller-Rommel 1998, 2002), whereas other parties are rather reluctant when it comes to taking clear stances on these issues (Spoon *et al.* 2014). These considerations result in two main reactions for different types of party families: green parties push all issues which are related to the broader green agenda – namely, issues relating to the environment, agriculture, energy and transport (Debus and Tosun 2021). All other parties tend to eschew direct reactions (either accommodative or adversarial) to green parties' environmental stances, and instead opt to employ rather dismissive strategies towards the environment (Abou-Chadi 2016; Carter 2013).

Yet, other studies are increasingly contesting the nature of the environment as a valence issue (Carter *et al.* 2018; Gemenis *et al.* 2012; Green-Pedersen 2019; Katsanidou and Gemenis 2010; Vihma *et al.* 2021). Indeed, a number of recent empirical studies argue that parties are showing growing signs of differentiation on the environmental issue (Båtstrand 2014; Buzogány and Ćetković 2021; Carter and Little 2021; Farstad and Aasen 2022; Ladrech and Little 2019; Pollex and Berker 2022; Schaller and Carius 2019). Distinct positioning on the environmental issue implies a plausible increase in polarisation. On one hand, left-wing parties tend to support environmentalist positions (usually) as a response to the agenda of green parties, which are seen as competitors for left-leaning voters. On the other, right-wing parties, especially populist ones, tend to be less supportive of these issues and are even hostile towards policies around renewable energy, sustainable agriculture or the climate and environment in general (Lüth and Schaffer 2022).

In line with these findings, we argue that the environmental issue has become increasingly positional. This approach might be supported by two additional arguments. First, some party-level analyses have found connections between environmental stances and the left–right spectrum of political competition (Farstad 2018). Second, individual environmental preferences – even if mediated by contextual factors – have been argued to be significant in explaining the support for green parties (Han and Finke 2022). We therefore argue that, on the environmental issue, we might observe a similar development as in the case of the European integration issue that has been viewed for a long time in the scholarly work on EU politics as a sleeping giant. It is only when this sleeping giant has been awakened that EU-issue voting has turned into a relevant phenomenon in electoral research. In a similar way, given the fact that the environmental issue is attracting more attention in the European political arena, we expect it to appear as more divisive. The disagreement among political parties on policy alternatives contributes to different voting preferences based on distinct position on the environmental issue.

Before we turn to formulating our theoretical hypotheses, we will first examine the research literature with a focus on the *demand side* of political competition.

The environmental issue and the demand side of political competition

Most of the previous studies on the demand side of political competition have focused on the rise and performance of green parties, while the study of public opinion towards the environmental issue has been researched in more detail by environmental sociologists or as one of the

pillars of the well-known theory of post-materialist values (Inglehart 1977; Kitschelt 1994; Müller-Rommel 1998) and its critique (Diekmann and Franzen 1999; Dunlap and Mertig 1997; Franzen and Meyer 2010). In this theory the origin of environmental concerns is associated with the increasing affluence of the post-war period. As new post-war generations were socialised in a context characterized by with greater economic and physical security, they turned to the pursuit of post-materialist goals, with one of them being environmental protection. The conflicts that are embedded in value changes produce a divide between materialist versus post-materialist orientations. The examination of this divide can be also found in studies that analyse the transformation of the ideological space in contemporary democracies.[5] The – sometime implicit – assumption in these studies is that environmentalism is included into a broader cultural dimensions together with other 'New Politics' issues (Ford and Jennings 2020; Knutsen 2018) such as gender equality, immigration, and EU attitudes. Weko (2021) argued that in the European context, citizens who exhibit more favourable attitudes regarding the process of EU integration and migration tend to exhibit more pro-environmental stances too. However, for some scholars the environmental issue is not associated with any other axis of political competition and they argue that it constitutes a dimension of its own (Kenny and Langsæther 2022).

Since environmental sociologists are mainly interested in economic and socio-demographic variables (e.g. Fairbrother 2016; Franzen and Mader 2020; Franzen and Meyer 2010; Franzen and Vogl 2012, 2013) when it comes to environmental concerns, our knowledge from an electoral behaviour perspective is much more limited and empirically untested. Most of the political science research is focused exclusively on the US context or ignores the link between the environmental issue and voting behaviour (Campbell *et al.* 2021; Chinn *et al.* 2020; Goldberg *et al.* 2021; Kotcher *et al.* 2021; Mildenberger and Leiserowitz 2017; Tingley and Tomz 2020; Tvinnereim *et al.* 2020; Weaver 2002). We know from the work of Schaffer *et al.* (2021) that public demand for climate change mitigation is a driver for many of the policies that are adopted to help achieve this. Moreover, McCrea *et al.* (2016), by analysing a longitudinal dataset from Australian elections, conclude that partisan politics increases fluctuations in climate change scepticism. But in general scholars have so far not put a lot of effort into researching how environmental preferences translate into electoral behaviour. To help address this research gap, we seek to study the relationship between environmental preferences and voters' choice for political parties in an EU-wide comparative perspective. The following section introduces our research hypotheses.

Hypotheses

The environmental proximity hypothesis

In order to analyse the relevance of environmental issue preferences, we focus our analysis on the party-voter distance (see van der Eijk *et al.* 1996). Following Downs' model of voting preferences, party choice is explained as a function of proximity. A main precondition in our study is that voters base their choices on proximity considerations on the environmental issue. Thus, we assumed that the willingness to cast a vote for a party increases when the distance between the preferences of voters and parties on the environmental issue is small. We selected the so-called 'proximity approach' instead of the 'directional' one since we hypothesise that voters and parties tend to occupy specific positions on environmental issues in a general one-dimensional space.

> Hypothesis 1: The smaller the party-voter distance on the environmental issue, the larger the probability that a voter will cast a vote for that party (H1).

The ideology-driven hypothesis

As already presented above, different studies confirm the linkage between climate change and the role of political ideology, suggesting that in the European context ideology is expected to shape attitudes towards the environment (McCright *et al.* 2015). Kulin *et al.* (2021) analyse in particular the significance of holding a nationalist ideology among voters compared to traditional left-wing/right-wing ideology regarding negative policy attitudes towards climate policies. Moreover, some scholars evaluate the role of populist attitudes in the understanding of climate scepticism. Right-wing populist voters tend to be less supportive of climate and environmental policies when compared to left-wing ones (Huber *et al.* 2020, 2021). As discussed above, green parties are the issue-owners of environmentalism in their national policies and they are usually located on the centre-left to far left of the political spectrum (for a review see van Haute 2016). Such a structuring of the supply side of political competition might attract leftist voters if they see it as reconciling their pro-environmental concerns with their broader ideological beliefs.

> Hypothesis 2: The effect of party-voter proximity on the environmental issue on party choice will be greater for leftist voters in comparison to non-leftist voters (H2).

The salience hypothesis

From communication studies, we know that people have a good sense of the general 'opinion climate' (Matthes *et al.* 2018) in a society. They follow the issues on the public agenda and adjust their electoral behaviour accordingly. If the environmental issue's sleeping giant is 'awake', there should be partisan conflict among parties, and this conflict should be perceived by voters too. In this regard, the electorate would be expected to prioritise these issues. Accordingly, we can assume that the salience of the environmental issue in a country mediates the relationship between environmental preferences and a voter's choice of party.

> Hypothesis 3: The higher the salience of the environmental issue in a country, the larger the effect on party choice of party-voter proximity on the environmental issue (H3).

Data and research design

In order to empirically test our theoretical assumptions, we have drawn on data provided by the European Elections Study 2019 (Schmitt *et al.* 2022). Specifically, we use data from a post-electoral voter survey that was, depending on the country, collected between the 14th of June and the 11th of July 2019. The decision to examine European elections instead of national elections has practical underpinnings. The EP elections are ideal as a dataset for our research agenda as they were held at the same time in all member states. This increases the comparability of the results, which is not the case for any other election.[6] Since EES 2019 includes all EU member states, our analysis aims to serve as a comparative study for the linkage of the environmental issue and voting behaviour. Additionally, the 2019 EP elections marked the highest salience of environmental issues across Europe's citizenry since the 2004 enlargement (see Figure 1).

Since we are specifically concerned with the overall voting decision of voters as our dependent variable and not with turnout or the choice of a specific party (group), we make use of so-called stacked data (Carteny *et al.* 2022). In using stacked data, the analytical attention shifts from the relationship between an individual and a specific party to the relationships among the characteristics of the individuals and parties acting within a party system (van der Eijk *et al.* 2006). In other words, stacked data instead of presenting one observation per respondent, includes several party-voter dyads per individual equals to the number of parties within each national party system. Each of these dyads takes the value 1 if the individual voted for the party, and 0 for all other parties. This constitutes our dependent variable and, as a result, our units of analysis increase from 26,538 respondents to 185,249 party-voter dyads.
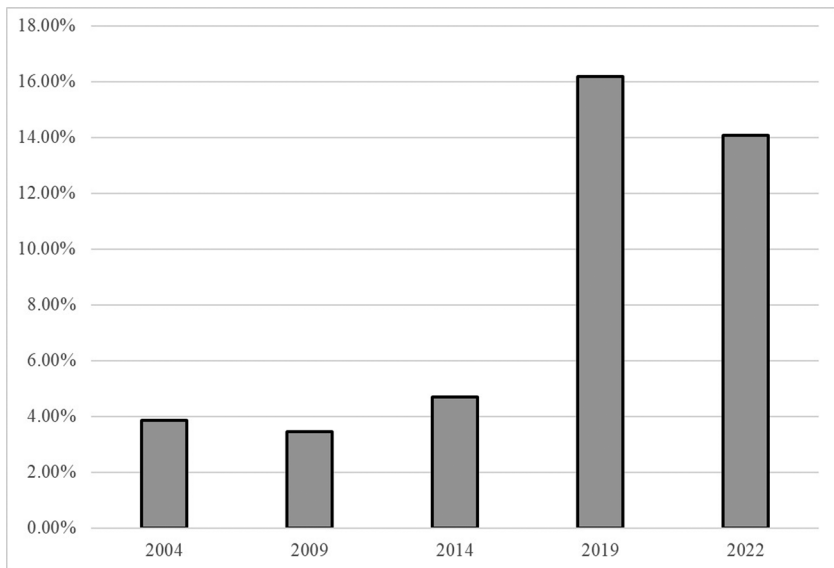
Figure 1. Percentage of EU citizens indicating the environmental issue as one of the two most important issues for their country.
Source: Authors' elaboration based on Eurobarometer 61.0 (2004), Eurobarometer 71.1 (2009), Eurobarometer 81.2 (2014), Eurobarometer 91.2 (2019), Eurobarometer 96.3 (2022).

Our main independent variable of interest (H1) is the individual voter-party proximity on the environmental issue. We use the EES survey question on environmental protection vs. economic growth and compute the difference to the party positions measured using the same question featuring in the Chapel Hill Expert Survey (Jolly *et al.* 2022) (for the exact question wording see Table A1 in the Online Appendix). Figure 2 shows the positionings of voters and parties across the environmental issue in our dataset. The breakdown for the voters indicates that 24 per cent of voters in our sample take the most pro-environmental position in the scale. In contrast, political parties are much less environmentalist than voters. Hence, we identify quite a large gap between the environmental preferences of the political demand and supply side.

In order to test for our remaining theoretical expectations (H2 & H3) two more independent variables are included in our models: whether a voter has a rather left-leaning political position as well as the salience of the environmental issue in a given country. Respondents' left-wing views were covered by the usual left-right question (measured using a 11-points scale). If the selected value is lower than 5, the respondent is coded as left-wing, otherwise as not left-wing. The measurement of the public salience of the environmental issue builds on Eurobarometer data.
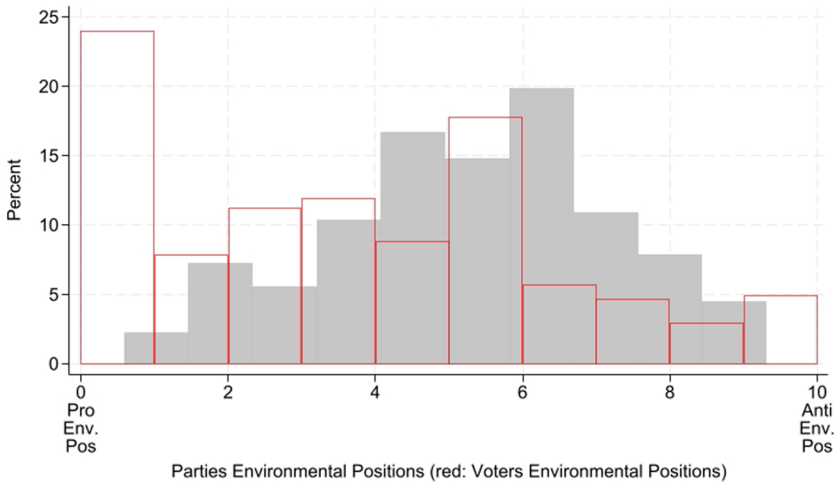
Figure 2. Voters and parties' position on the environmental issue.
Note: Red bars indicate the percentage of voters in our sample holding distinct environmental posi-
tions, while the grey bars indicate the positions of political parties.
Source: Authors' elaboration.

Specifically, we considered the percentage of respondents indicating the
'environmental protection issue' as one of the two most important prob-
lems in their country[7] (European Commission 2019).

In addition to the described mechanisms which are of central interest
for our paper, we also control for other determinants. First, we test whether
voter-party distances on the political left-right continuum and the EU
dimension might play a role in respondents' vote choice. The measurement
here once again follows the procedure described for the environmental
issue (see Table A1 in the Online Appendix for the exact question word-
ings). Second, we controlled for whether the relationship between
voter-party distance on the environmental issue is influenced by green
party voting. In this context, we added a dichotomous control measuring
those who voted for a green party in the 2019 EP elections. The identifi-
cation of green parties relies on the party family classification of the
ParlGov dataset (Döring and Philip 2022). Third, we tested for the effect
of certain macro-level indicators measured at the country level, by con-
trolling for 2018 GDP per capita. Comparative analysis, developing the
post-materialist thesis (Inglehart 1997), has found evidence to suggest that
pro-environmental attitudes and preferences are linked with economic
prosperity and that environmental concerns are more pronounced in
wealthier countries (Franzen and Meyer 2010; Franzen and Vogl 2013).
Fourth, the importance of the environmental issue could be seen as a
function of the green parties' rootedness in a national party system. For
this reason, we also control for the share of green votes collected in each

country during the 2014 EP elections, by using ParlGov data (Döring and Philip 2022). Finally, we controlled for the effect of some basic socio-demographic variables[8] in our models *via* the so-called y-hats.[9] Table A2 in the Online Appendix provides descriptive statistics of our dependent and independent variables.

In our dataset, party-voter dyads are nested within voters and countries. In light of this hierarchical data structure, our hypotheses are tested by estimated three-level logit regressions. In this respect, random intercepts are modelled for voters at the country level, bearing in mind that the impact of party-voter ideological distances on voting behaviour is clustered by countries and that party-voter dyads are nested into individual respondents. Additionally, we included random slopes at the country level, in order to control for unobservable country characteristics.

In our hypotheses H2 and H3 we suggest that the degree of salience at the country level, as well as the ideologically left orientation at the individual level, condition the effect of party-voter distance on voting behaviour when it comes to the environmental issue. Considering the presence of multi-level interactions, we included random slopes on the individual-level variable (e.g. lower component) of the interactions (Heisig and Schaeffer 2019). All the variables have been first standardised in a 0–1 interval. Then, the individual-level predictor involved in the interactions (i.e. environmental distance) is centred around the group mean (e.g. country), while all the other predictors are centred around their grand mean (Enders and Tofighi 2007).

In our empirical modelling, we follow a stepwise logic. Whereas the first model only includes the main independent variable of interest, the following models gradually include more variables. In step two, the remaining independent variables are added to the model, and interacted with environmental proximity, one after another. Finally, the control variables at the micro and macro levels come into play.

Results

Table 1 presents the results of hierarchical multilevel logit models. The log-likelihood test supports the application of a multilevel model rather than a pooled logit model, suggesting the existence of significant unobserved variation across countries.

The environmental proximity hypothesis

Our first hypothesis suggested a relationship linking party-voter distance on the environmental issue and vote choice. Hence, the baseline model

Table 1. Hierarchical logit models.

	(1) Env. Distance	(2) Env. Distance* Left voter	(3) Env. Distance* Env. Salience	(4) Env. Distance (control Individual)	(5) Env. Distance (control country)	(6) Env. Distance (full model)	(7) Env. Distance* Left voter (control Individual)	(8) Env. Distance* Left voter (control country)	(9) Env. Distance* Left voter (full model)	(10) Env. Distance* Env. Salience (control Individual)	(11) Env. Distance* Env. Salience (control country)	(12) Env. Distance* Env. Salience (full model)
Env. Distance	-0.681*** (0.0396)	-0.0737 (0.0496)	-0.685*** (0.0398)	-0.365*** (0.0491)	-0.680*** (0.0396)	-0.362*** (0.0491)	-0.074 (0.0572)	-0.0687 (0.0495)	-0.0707 (0.0573)	-0.372*** (0.0494)	-0.686*** (0.0398)	-0.372*** (0.0494)
Left Voter (=1)		0.00766 (0.0197)		0.186*** (0.0226)		0.189*** (0.0227)	0.140*** (0.0233)	-0.00533 (0.0198)	0.143*** (0.0234)	0.189*** (0.0226)	0.192*** (0.0227)	0.192*** (0.0227)
Env. Salience (Pub. Op.)			0.242*** (0.0589)		-0.285*** (0.0787)	0.304** (0.0946)		-0.365*** (0.0814)	0.309** (0.0947)	0.0992 (0.0739)	-0.352*** (0.0797)	0.227* (0.0962)
Env. Distance* Left Voter		-1.915*** (0.091)					-1.056*** (0.11)	-1.929*** (0.091)	-1.057*** (0.11)			
Env. Distance* Salience			-1.752*** (0.262)							-1.824*** (0.338)	-1.832*** (0.267)	-1.804*** (0.336)
Left/Right Distance				-3.219*** (0.0671)		-3.229*** (0.0672)	-3.103*** (0.0681)		-3.113*** (0.0682)	-3.208*** (0.0672)		-3.213*** (0.0672)
EU issue Distance				-1.300*** (0.0458)		-1.300*** (0.0459)	-1.294*** (0.0458)		-1.295*** (0.0459)	-1.303*** (0.0458)		-1.300*** (0.0459)
Green Voter (=1)				0.353*** (0.0422)		0.355*** (0.0429)	0.372*** (0.0423)		0.373*** (0.043)	0.350*** (0.0425)		0.364*** (0.043)
Y-Hats (Sociodemographic)				7.226*** (0.128)		7.228*** (0.128)	7.222*** (0.128)		7.223*** (0.129)	7.214*** (0.128		7.215*** (0.129)
Green Vote (2014)					1.163*** (0.236)	-0.0918 (0.275)		1.101*** (0.245)	-0.0835 (0.276)		1.167*** (0.236)	-0.108 (0.275)
GDP 2018					0.537*** (0.0615)	-0.162* (0.0732)		0.485*** (0.064)	-0.155* (0.0733)		0.543*** (0.0615)	-0.154* (0.0732)
Env. Distance (Country Mean)	0.781*** (0.155)	0.542*** (0.164)	1.090*** (0.167)	-1.174*** (0.191)	2.046*** (0.19)	-1.239*** (0.227)	-1.227*** (0.192)	1.637*** (0.203)	-1.270*** (0.228)	-1.007*** (0.204)	2.052*** (0.19)	-1.232*** (0.227)
Y-Hats (Party Mean)				9.856*** (0.14)	9.897*** (0.141)	9.897*** (0.141)	9.874*** (0.14)	9.914*** (0.141)	9.914*** (0.141)	9.875*** (0.14)	9.915*** (0.141)	9.915*** (0.141)

(Continued)

Table 1. Continued.

	(1) Env. Distance	(2) Env. Distance* Left voter	(3) Env. Distance* Salience	(4) Env. Distance (control Individual)	(5) Env. Distance (control country)	(6) Env. Distance (full model)	(7) Env. Distance* Left voter (control Individual)	(8) Env. Distance* Left voter (control country)	(9) Env. Distance* Left voter (full model)	(10) Env. Distance* Salience (control Individual)	(11) Env. Distance* Salience (control country)	(12) Env. Distance* Salience (full model)
_cons	−2.614***	−2.478***	−2.723***	−1.923***	−3.218***	−1.905***	−1.924***	−2.991***	−1.917***	−1.986***	−3.272***	−1.866***
	(0.0544)	(0.058)	(0.0585)	(0.0693)	(0.0757)	(0.0895)	(0.0694)	(0.0809)	(0.0896)	(0.0731)	(0.0774)	(0.091)
ICC: respondent_ID	2.57E-22	7.47E-22	7.23E-19	3.19E-18	1.10E-21	2.52E-21	4.79E-21	7.51E-20	1.02E-21	2.66E-16	5.31E-20	3.92E-23
ICC: respondent_ID	country	5.22E-22	5.33E-21	7.44E-19	3.19E-18	6.84E-21	4.58E-21	6.38E-21	1.10E-18	1.35E-21	4.77E-16	6.83E-20	1.22E-21
N individuals	24,719	21,853	24,719	19,228	24,719	19,228	19,228	21,853	19,228	19,228	24,719	19,228
N countries	28	28	28	28	28	28	28	28	28	28	28	28
N	167468	148064	167468	128541	167468	128541	128541	148064	128541	128541	167468	128541
AIC	99689.6	90932.1	99621.2	67127.6	99541.3	67121.9	67036	90832.6	67030	67096	99495.1	67094.5
BIC	99749.8	91011.3	99701.4	67244.8	99631.5	67268.3	67162.9	90941.6	67186.2	67232.7	99595.4	67250.8
Log Likelihood	−49838.8	−45458	−49802.6	−33551.8	−49761.6	−33545.9	−33505	−45405.3	−33499	−33534	−49737.5	−33531.3

Note: Multilevel models with random intercepts by respondent and country, based on maximum number of available cases.
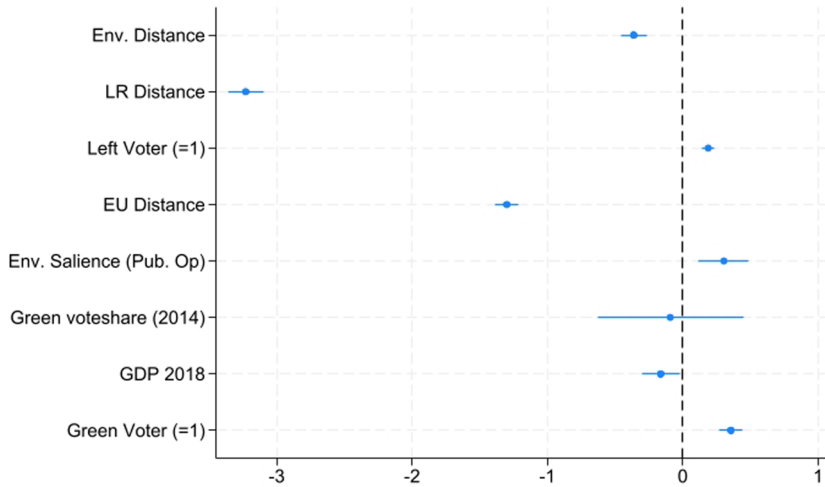Standard errors in parentheses.
*$p < 0.05$, **$p < 0.01$, ***$p < 0.001$.

Figure 3. Coefficient plot explaining voting behaviour by the party-voter distance on the environmental issue.
Source: Authors' elaboration.
Note: The graph plots the coefficients displayed by model 6, presented in Table 1.

(model 1) tests for precisely this predictor with no other control variables. The results show that the environmental gap between voters and parties indeed plays a significant role for the voting decision taken. The greater the distance, the lower the likelihood of a voting decision in favour of a given party. Models 4 and 5 add respectively individual and country-level controls, while model 6 represents the full model. As expected, the minimisation of party-voter distance on both the left-right continuum and EU issue has a significant effect on voting behaviour, with the former showing the strongest impact. Interestingly, our main independent variable – party-voter distance on the environmental issue – remains significant even when introducing individual- and country-level controls.

Figure 3 plots the coefficients of the full model (model 6). In this respect, the impact of voters' distance on the environmental issue might appear negligible, yet the fact that the variable still holds a significant effect – even when controlling for crucial ideological, socio-demographic and contextual variables – makes this finding (which supports H1) seminal in investigating the impact of the environmental issue on voting behaviour.

The ideology-driven hypothesis

In our second hypothesis we argued that the distance on the environmental issue in predicting voting behaviour will have a more pronounced impact for leftist voters. In this respect, the interaction between the
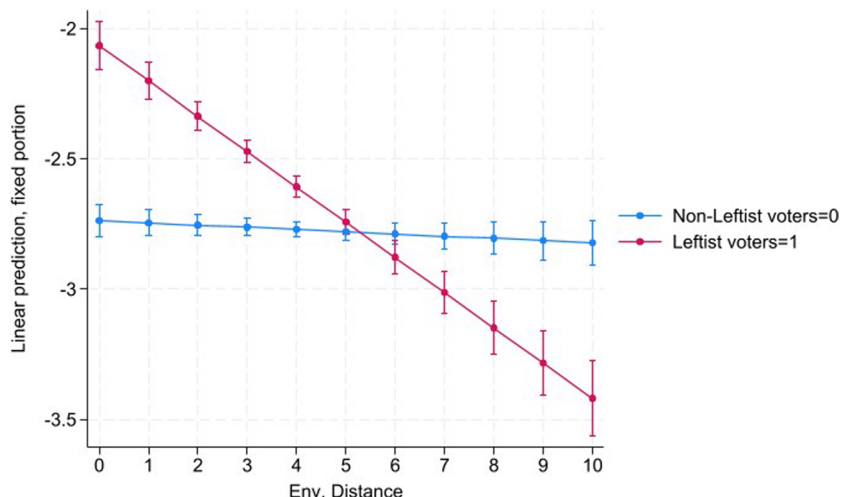
Figure 4. Adjusted predictions of leftist vs. non-leftist voters with 95% confidence.
Source: Authors' elaboration.
Note: Adjusted predictions based on model 9 (see Table 1).

party-voter distance on the environmental issue and respondents' leftist positioning results in significant effects when tested alone (model 2), when controlling for other individual level variables, including individual support for green parties (model 7) as well as including country-level characteristics (models 8 and 9). Our data reveal that when interacting the environmental distance with the dichotomous variable indicating the voters' leftist ideological positioning, the magnitude of the coefficient of the interaction (see model 9, Table 1) is almost three times higher than in the model with the direct effect (see model 6). Figure 4 graphically presents the linear prediction of the environmental distance over voters' left-leaning ideological beliefs (based on model 9). In this respect, leftist voters are more likely than other voters to support a party that shrinks the distance on the environmental issue. But when this distance increases, there is a lower probability that leftist voters will support such parties. This finding highlights the impact of congruence on the environmental issue in explaining voting behaviour and is in line with our second research hypothesis.

The salience hypothesis

Next, we turn to the direct and moderating role of public salience. As presented in model 6, public opinion salience of environmental issues does not affect voting behaviour. Yet when we combine the party-voter distance on the environmental issue with its degree of salience in different countries, we register a negative relationship (see model 3). This implies that when
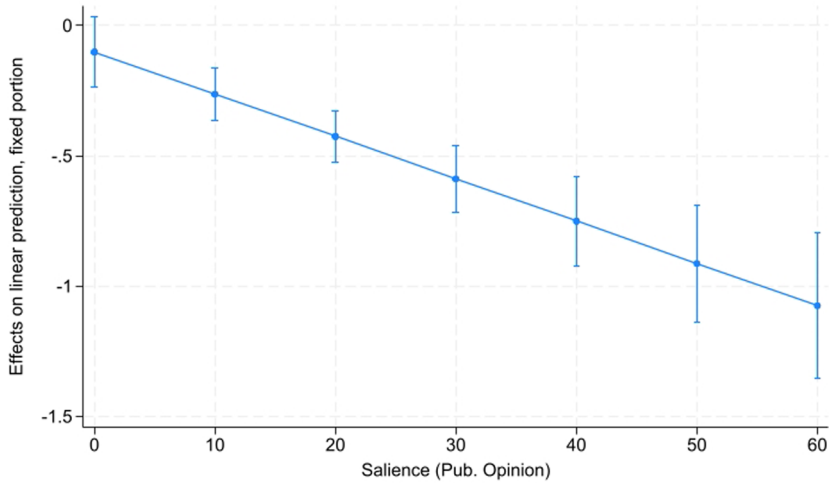
Figure 5. Marginal effects of environmental distance by salience with 95% confidence.
Source: Authors' elaboration.
Note: Marginal effect based on model 12 (see Table 1).

salience increases, voters are more likely to vote for those parties whose policies are congruent with their views on the environmental issue. This relationship also holds true when controlling for individual- (model 10) and country-level (model 11) variables as well as in the full model (12). In this respect, Figure 5 displays the average marginal effect of this interaction (based on model 12) by showing how a higher degree of salience increases the likelihood to vote for a party whose platform more closely reflects a voter's preference on the environmental issue. This supports our H3.

Looking at our country-level controls, we also explored whether other country-level predictors (e.g. green parties' vote share registered in the previous EP election (2014) and a country's GDP measured one year prior to the election) moderate the relationship with the voter-party distance on the environmental issue. In line with the modernisation thesis, we found that the congruence on the environmental issue is more likely to predict voting behaviour in those countries with a higher GDP per capita (see Online Appendix model 1, Table A1). Additionally, the impact of congruence on the environmental issue and voting behaviour is also more marked in those contexts characterised by green parties that attained electoral success in 2014 (see Online Appendix model 2, Table A1).

Concluding remarks

Climate change and environmental issues are steadily moving to the top of the media and public agenda in many European countries. However, we

know that political parties often fail to incorporate their environmental preferences into their party platforms. Additionally, even though several studies have explored the determinants of environmental preferences among the EU's citizenry (for a review see Puleo 2023), the precise impact of these preferences on voting behaviour remains so far a largely neglected area of study.

Following Han & Finke's work on environmental preferences and green party support (2022), we revealed how the 2019 EP election data show signs of environmental issue voting beyond the green party family. Our empirical results reveal that voters indeed tend to support parties that minimise the distance on the environmental issue. This finding is robust even after controlling for other ideological and contextual factors. Moreover, the relevance of this positional distance seems to be even more important for left-leaning voters. Indeed, we found that leftist voters are much more inclined to support those parties whose platforms more closely reflect their views on the environmental issue. Crucially, this effect appears to be robust also after controlling for green party voters. On top of this, we found that the effect of environmental issue voting is higher in those countries characterised by a higher salience of the environmental issue. These two findings suggest that the relevance of the environmental issue in explaining voting behaviour might even increase in the coming years and in the 2024 EP elections, given the widespread evidence of climate change.

However, the distance between the party and the voter on the environmental issue influences the voting behaviour of leftist and rightist voters differently. This difference could be explained by inferring that rightist parties tend to be considerably less pro-environmental than their voters when compared to leftist parties. This implies that leftist voters can match their environmental preferences and concerns with their broader ideological beliefs on the left–right dimension. In this regard, our findings suggest that the pro-environmental preferences of rightist voters are currently not adequately represented by rightist parties. This strategic opportunity might be exploited in the future, producing innovative policy platforms that combines right-wing positioning and environmentalism. Some seminal contributions focusing on party competition seem to support our insights. Far-right parties indeed tend to increase their acknowledgement of the environmental issue, when the salience increases across the general public (Spoon and Williams 2022). Additionally, a recent analysis of far-right communication revealed that even if these parties are mainly opposing policies tailored to mitigate climate change, they often acknowledge that climate change is a serious concern, and they increasingly discuss environmental protection (Forchtner and Lubarda 2023).

We admit that our results might be influenced by the data source we used in measuring parties' positions on the environmental issue. Experts might be biased by their own views in classifying parties' positions (Curini

2010). In this respect, considering the higher number of CHES experts holding leftist and liberal positions, there might be bias involved when evaluating environmental positions for right-wing and especially far-right actors. In this respect, we hope that in the near future comparative surveys will include respondents' evaluation of parties' position on the environmental issue.

Altogether, our study's findings provide evidence that preferences on environmental issues matter for people's voting choice – in particular for leftist voters and in countries with a greater public salience on environment. These findings are highly relevant for researchers interested in European politics. Based on our findings we would argue that future scholarly work should incorporate an environmental politics dimension when studying electoral behaviour in addition to the traditional left–right dimension of politics and the different facets of the more cultural dimensions of European politics (Schäfer *et al.* 2021). One important question for future research would thus certainly be whether the preferences for environmental issues are consistent with these two standard dimensions of the political space. It is therefore of major importance to develop appropriate questions to map the different facets of environmental attitudes. With the next round of EP elections taking place in 2024, in our opinion this would be an ideal testing ground for the robustness of our findings regarding the question of whether green issues are still as relevant for the citizenry and political actors as one would assume in view of the timeliness, and indeed urgency, of the topic.

Notes

1. This is what the Intergovernmental Panel on Climate Change (IPCC), the United Nations body for assessing the science related to climate change, regularly assesses in its reports (for more detailed information, please refer to the IPCC website: https://www.ipcc.ch/reports/, 11.07.2023).
2. Eurobarometer (EB) data used by Schwörer (2023) shows that respondents in (some of the selected) EU member states consider environmental protection as one of the two most important issues that their country is facing at the moment.
3. This is also the case in Germany which is among the frontrunners when it comes to climate change mitigation (Kachi *et al.* 2015). The German Institute for Economic Research (DIW-Econ 2021) revealed that none of the parties' election manifestos, issued ahead of the 2021 federal election in Germany, has proposed policy measures which comply with the guidelines of the Paris Agreement.
4. This is also evident when looking at election manifestos from the 2019 EP elections. The collected and coded Euromanifesto data from 2019 (Reinl and Braun 2023) shows that the topics of environmental protection and climate change only played marginal roles here. This is despite green parties performing above average in these elections.

5. This divide has also been theorised employing alternative terminology. For example, it has been construed as a new cleavage produced by the secularising dynamic and the purported generational value shift due to economic growth, increased levels of affluence and the rapid expansion of education. More specifically, it has been expressed in terms of the contrast between GAL (green/alternative/libertarian) and TAN (traditional/authoritarian/nationalist) orientations (Hooghe *et al.* 2002), libertarian-universalist versus traditionalist-communitarian values (Bornschier 2010) or between demarcation versus integration (Kriesi *et al.* 2006).

6. In addition, EP elections have been traditionally considered as second-order elections (Reif and Schmitt 1980). This implies that voters are freer in expressing their vote as the process of national government formation is not at stake.

7. We used the EB 91.2 (2019) dataset, collecting the data between the 15th and the 29th of March 2019 – that is, *before* that year's EP elections.

8. Despite a disputed cross-national validity (see Kvaløy *et al.* 2012), age is often considered a crucial predictor in shaping citizens' concerns on the environment. We verified whether younger voters are more influenced than older cohorts by the distance on the environmental issue between their preferences and those displayed by political parties. Our results show no significant effects (see Table A3 in the Online Appendix).

9. Y-hats represent the coefficient of a multivariate regression (distinct for each party) of a party's propensity to vote on the socio-demographic predictors (for an extensive discussion on y-hats see van der Eijk *et al.* 2006). As a robustness check we also ran our analysis omitting the y-hats. The results confirm this paper's findings (see Online Appendix Table A4).

Acknowledgements

Disclosure statement

Funding

Notes on contributors

Leonardo Puleo is a postdoctoral fellow at the School of Politics and International Relations at University College Dublin. His research deals with party competition and challenger parties, with a focus on the spread of illiberal ideas. He has

published in several peer-reviewed journals, including *Party Politics*, *Political Studies*, and *Democratisation*. [leonardo.puleo@ulb.be]

Daniela Braun is Professor of Political Science with a specialisation in European Integration and International Relations at Saarland University (USAAR). Her research interests include European Union politics, party politics, public opinion, and political behaviour. She is currently involved in two Horizon Europe projects: ActEU and UNTWIST. For more information, see the chair's website. [d.braun@uni-saarland.de]

Ann-Kathrin Reinl is a Max Weber Fellow at the Robert Schuman Centre for Advanced Studies at the European University Institute. Her research focuses on public attitudes towards the EU, transnational solidarity, electoral research, and political attitudes in democratic regimes. [annkathrin.reinl@eui.eu]

Eftichia Teperoglou is Assistant Professor at the School of Political Sciences, Aristotle University Thessaloniki. Her main research interests are in the fields of electoral and political sociology, public opinion, comparative politics with a focus on European elections. She is involved in the Horizon project ActEU and she coordinates the Erasmus Module EuPolSur. [efteperoglou@polsci.auth.gr]

ORCID

Leonardo Puleo http://orcid.org/0000-0001-6926-9241
Daniela Braun http://orcid.org/0000-0002-3962-2021
Ann-Kathrin Reinl http://orcid.org/0000-0002-3780-3101
Eftichia Teperoglou http://orcid.org/0000-0001-5253-8441

References

Abou-Chadi, Tarik (2016). 'Niche Party Success and Mainstream Party Policy Shifts – How Green and Radical Right Parties Differ in Their Impact', *British Journal of Political Science*, 46:2, 417–36.

Adam, Antonis, and Sofia Tsarsitalidou (2019). 'Environmental Policy Efficiency: Measurement and Determinants', *Economics of Governance*, 20:1, 1–22.

Båtstrand, Sondre (2014). 'Giving Content to New Politics: From Broad Hypothesis to Empirical Analysis Using Norwegian Manifesto Data on Climate Change', *Party Politics*, 20:6, 930–9.

Birch, Sarah (2020). 'Political Polarization and Environmental Attitudes: A Cross-National Analysis', *Environmental Politics*, 29:4, 697–718.

Bornschier, Simon (2010). *Cleavage Politics and the Populist Right: The New Cultural Conflict in Western Europe*. Philadelphia: Temple University Press.

Braun, Daniela, and Grande Edgar (2021). 'Politicizing Europe in Elections to the European Parliament (1994–2019): The Crucial Role of Mainstream Parties', *JCMS: Journal of Common Market Studies*, 59:5, 1124–41.

Braun, Dandiela, and Constantin Schäfer (2022). 'Issues That Mobilize Europe: The Role of Key Policy Issues for Voter Turnout in the 2019 European Parliament Election', *European Union Politics*, 23:1, 120–40.

Broomell, Stephen B., David V. Budescu, and Han-Hui Por (2015). 'Personal Experience with Climate Change Predicts Intentions to Act', *Global Environmental Change*, 32, 67–73.

Budge, Iand, and Daniel J. Farlie (1983). *Explaining and Predicting Elections*. London: Allen & Unwin.

Buzogány, Aron, and Stefan Ćetković (2021). 'Fractionalized but Ambitious? Voting on Energy and Climate Policy in the European Parliament', *Journal of European Public Policy*, 28:7, 1038–56.

Campbell, Eryn, John Kotcher, Edward Maibach, Seth A. Rosenthal, and Anthony Leiserowitz (2021). 'Predicting the Importance of Global Warming as a Voting Issue among Registered Voters in the United States', *Current Research in Ecological and Social Psychology*, 2, 100008.

Carteny, Giuseppe, Schmitt, Hermann, Häußling, Wilhelmine, Leiser, Julian, & Körnig, Matthias (2022). '2019 European Election Studies (EES) Stacked Data Matrix'. GESIS, Cologne. ZA7890 Data file Version 1.0.0.

Carter, Neil (2013). 'Greening the Mainstream: Party Politics and the Environment', *Environmental Politics*, 22:1, 73–94.

Carter, Neil, Robert Ladrech, Conor Little, and Vasiliki Tsagkroni (2018). 'Political Parties and Climate Policy: A New Approach to Measuring Parties' Climate Policy Preferences', *Party Politics*, 24:6, 731–42.

Carter, Neil, and Conor Little (2021). 'Party Competition on Climate Policy: The Roles of Interest Groups, Ideology and Challenger Parties in the UK and Ireland', *International Political Science Review*, 42:1, 16–32.

Chinn, Sedona, P. Sol Hart, and Stuart Soroka (2020). 'Politicization and Polarization in Climate Change News Content, 1985–2017', *Science Communication*, 42:1, 112–29.

Cole, Daniel H. (2015). 'Advantages of a Polycentric Approach to Climate Change Policy', *Nature Climate Change*, 5:2, 114–8.

Cook, John, Dana Nuccitelli, Sarah A. Green, Mark Richardson, Bärbel Winkler, Rob Painting, Robert Way, Peter Jacobs, and Andrew Skuce (2013). 'Quantifying the Consensus on Anthropogenic Global Warming in the Scientific Literature', *Environmental Research Letters*, 8:2, 24024.

Curini, Luigi (2010). 'Experts' Political Preferences and Their Impact on Ideological Bias: An Unfolding Analysis Based on a Benoit-Laver Expert Survey', *Party Politics*, 16:3, 299–321.

de Moor, Joost, Michiel de Vydt, Katrin Uba, and Mattias Wahlström (2021). 'New Kids on the Block: Taking Stock of the Recent Cycle of Climate Activism', *Social Movement Studies*, 20:5, 619–25.

de Vries, Catherine E. (2010). 'EU Issue Voting: Asset or Liability? How European Integration Affects Parties' Electoral Fortunes', *European Union Politics*, 11:1, 89–117.

Debus, Marc, and Jale Tosun (2021). 'The Manifestation of the Green Agenda: A Comparative Analysis of Parliamentary Debates', *Environmental Politics*, 30:6, 918–37.

Diekmann, Andreas, and Axel Franzen (1999). 'The Wealth of Nations and Environmental Concern', *Environment and Behavior*, 31:4, 540–9.

DIW-Econ (2021). 'Wie viel Klimaneutralität steckt in den Wahlprogrammen? Eine Studie für die Stiftung Klimaneutralität', available at https://diw-econ.de/publikationen/wie-viel-klimaneutralitaet-steckt-in-den-wahlprogrammen/.

Dolezal, Martin (2010). 'Exploring the Stabilization of a Political Force: The Social and Attitudinal Basis of Green Parties in the Age of Globalization', *West European Politics*, 33:3, 534–52.

Döring, Holger, and Manow Philip (2022). 'Parliaments and Governments Database (ParlGov): Information on Parties, Elections and Cabinets in Established Democracies', In-development version.

Dunlap, Riley E., and Angela G. Mertig (1997). 'Global Environmental Concern: An Anomaly for Postmaterialism', *Social Science Quarterly*, 78, 24–9.

Enders, Craig K., and Davood Tofighi (2007). 'Centering Predictor Variables in Cross-Sectional Multilevel Models: A New Look at an Old Issue', *Psychological Methods*, 12:2, 121–38.

European Commission (2019). 'Eurobarometer 91.2', GESIS Data Archive, Cologne. ZA7562 Data File Version 1.0.0.

European Commission (2021). 'Climate Report', Special Eurobarometer 513.

Fairbrother, Malcom (2016). 'Trust and Public Support for Environmental Protection in Diverse National Contexts', *Sociological Science*, 3, 359–82.

Farstad, Fay M. (2018). 'What Explains Variation in Parties' Climate Change Salience?', *Party Politics*, 24:6, 698–707.

Farstad, Fay M., and Marianne Aasen (2022). 'Climate Change Doesn't Win You a Climate Election: Party Competition in the 2021 Norwegian General Election', *Environmental Politics*, 32:4, 732–42.

Forchtner, Bernhard, and Balša Lubarda (2023). 'Scepticisms and beyond? A Comprehensive Portrait of Climate Change Communication by the Far Right in the European Parliament', *Environmental Politics*, 32:1, 43–68.

Ford, Robert, and Will Jennings (2020). 'The Changing Cleavage Politics of Western Europe', *Annual Review of Political Science*, 23:1, 295–314.

Franzen, Axel, and Sebastian Mader (2020). 'Can Climate Skeptics Be Convinced? The Effect of Nature Videos on Environmental Concern', *Sustainability*, 12:7, 2972.

Franzen, Axel, and Reto Meyer (2010). 'Environmental Attitudes in Cross-National Perspective: A Multilevel Analysis of the ISSP 1993 and 2000', *European Sociological Review*, 26:2, 219–34.

Franzen, Axel, and Dominikus Vogl (2012). 'Acquiescence and the Willingness to Pay for Environmental Protection: A Comparison of the ISSP, WVS, and EVS', *Social Science Quarterly*, 94:3, 637–59.

Franzen, Axel, and Dominikus Vogl (2013). 'Two Decades of Measuring Environmental Attitudes: A Comparative Analysis of 33 Countries', *Global Environmental Change*, 23:5, 1001–8.

Garton Ash, Timothy, Antonia Zimmermann, Dan Snow, and Elidh Macfarlane (2020). 'What Europeans Say They Will Do to Combat Climate Change', *Bertelsmann-Stiftung*, available at: https://www.bertelsmann-stiftung.de/fileadmin/files/BSt/Publikationen/GrauePublikationen/eupinions_brief_Climate_Change.pdf

Gemenis, Konstantinos, Alexia Katsanidou, and Sofia Vasilopoulou (2012). 'The Politics of Anti-Environmentalism: Positional Issue Framing by the European Radical Right', Paper prepared for the MPSA Annual Conference, 12–15 April 2012, Chicago.

Goldberg, Matthew H., Abel Gustafson, Matthew T. Ballew, Seth A. Rosenthal, and Anthony Leiserowitz (2021). 'Identifying the Most Important Predictors of Support for Climate Policy in the United States', *Behavioural Public Policy*, 5:4, 480–502.

Green-Pedersen, Christoffer (2012). 'A Giant Fast Asleep? Party Incentives and the Politicisation of European Integration', *Political Studies*, 60:1, 115–30.

Green-Pedersen, Christoffer (2019). *The Reshaping of West European Party Politics: Agenda-Setting and Party Competition in Comparative Perspective*. Oxford: Oxford University Press.

Han, JeongHun, and Daniel Finke (2022). 'Voting Green in European Parliament Elections: Issue Voting in an Electoral Context', *Journal of European Public Policy*, 30:12, 2764–85.

Heisig, Jan Paul, and Merlin Schaeffer (2019). 'Why You Should Always Include a Random Slope for the Lower-Level Variable Involved in a Cross-Level Interaction', *European Sociological Review*, 35:2, 258–79.

Herold, Maik, Janine Joachim, Cyrill Otteni, and Hans Vorländer (2023). *Polarization in Europe. An Analysis of Ten European Countries*. Dresden: Mercator Forum Migration and Democracy (MIDEM).

Hooghe, Liesbeth, and Gary Marks (2009). 'A Postfunctionalist Theory of European Integration: From Permissive Consensus to Constraining Dissensus', *British Journal of Political Science*, 39:1, 1–23.

Hooghe, Liesbet, Gary Marks, and Carole J. Wilson (2002). 'Does Left/Right Structure Party Positions on European Integration?', *Comparative Political Studies*, 35:8, 965–89.

Huber, Robert A., Lukas Fesenfeld, and Thomas Bernauer (2020). 'Political Populism, Responsiveness, and Public Support for Climate Mitigation', *Climate Policy*, 20:3, 373–86.

Huber, Robert A., Thomas Maltby, Kacper Szulecki, and Stefan Ćetković (2021). 'Is Populism a Challenge to European Energy and Climate Policy? Empirical Evidence across Varieties of Populism', *Journal of European Public Policy*, 28:7, 998–1017.

Hutter, Swen, Edgar Grande, and Hanspeter Kriesi, eds. (2016). *Politicising Europe: Integration and Mass Politics*. Cambridge: Cambridge University Press.

Inglehart, Ronald (1977). *The Silent Revolution: Changing Values and Political Styles among Western Publics*. Princeton: Princeton University Press.

Inglehart, Ronald (1997). *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Societies*. Princeton: Princeton University Press.

IPCC (2021). *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: Cambridge University Press.

Jolly, Seth, *et al.* (2022). 'Chapel Hill Expert Survey Trend File, 1999–2019', *Electoral Studies*, 75, https://doi.org/10.1016/j.electstud.2021.102420.

Kachi, Aya., Thomas Bernauer, and Robert Gampfer (2015). 'Climate Policy in Hard Times: Are the Pessimists Right?', *Ecological Economics*, 114, 227–41.

Katsanidou, Alexia, and Konstantinos Gemenis (2010). 'Why the Environment Might Not Be the Textbook Example of a Valence Issue', Paper prepared for the 2010 EPOP Conference, University of Essex, 10–12 September.

Kenny, John, and Peter Egge Langsæther (2022). 'Environmentalism as an Independent Dimension of Political Preferences', *European Journal of Political Research*, 62:4, 1031–53.

Kitschelt, Herbert (1994). *The Transformation of European Social Democracy*. Cambridge: Cambridge University Press.

Knutsen, Oddbjørn (2018). *Social Structure, Value Orientations and Party Choice in Western Europe*. Cham: Palgrave.

Kotcher, John, Lauren Feldman, Kate T. Luong, James Wyatt, and Edward Maibach (2021). 'Advocacy Messages about Climate and Health Are More Effective When They Include Information about Risks, Solutions, and a Normative Appeal: Evidence from a Conjoint Experiment', *The Journal of Climate Change and Health*, 3, 100030.

Kriesi, Herbert, Edgar Grand, Romain Lachat, Martin Dolezal, Simon Bornschier, and Timotheos Frey (2006). 'Globalization and the Transformation of the National Political Space: Six European Countries Compared', *European Journal of Political Research*, 45:6, 921–56.

Kulin, Joakim, Ingemar Johansson Sevä, and Riley E. Dunlap (2021). 'Nationalist Ideology, Rightwing Populism, and Public Views about Climate Change in Europe', *Environmental Politics*, 30:7, 1111–34.

Kvaløy, Berit, Henning Finseraas, and Ola Listhaug (2012). 'The Publics' Concern for Global Warming: A Cross-National Study of 47 Countries', *Journal of Peace Research*, 49:1, 11–22.

Ladrech, Robert, and Conor Little (2019). 'Drivers of Political Parties' Climate Policy Preferences: Lessons from Denmark and Ireland', *Environmental Politics*, 28:6, 1017–38.

Leinaweaver, Justin, and Robert Thomson (2016). 'Greener Governments: Partisan Ideologies, Executive Institutions, and Environmental Policies', *Environmental Politics*, 25:4, 633–60.

Little, Conor (2023). 'Parties and Climate Change', in N. Carter, D. Keith, G. M. Sindre, and S. Vasilopoulou (eds.), *The Routledge Handbook of Political Parties*. London: Routledge, 280–300.

Lundquist, Sanna (2022). 'Do Parties Matter for Environmental Policy Stringency? Exploring the Program-to-Policy Link for Environmental Issues in 28 Countries 1990–2015', *Political Studies*, 72:2, 612–33.

Lüth, Maximillian, and Lena Maria Schaffer (2022). 'The Electoral Importance and Evolution of Climate-Related Energy Policy: Evidence from Switzerland', *Swiss Political Science Review*, 28:2, 169–89.

Marquardt, Jens (2020). 'Fridays for Future's Disruptive Potential: An Inconvenient Youth Between Moderate and Radical Ideas', *Frontiers in Communication*, 5, 1–18.

Matthes, Jörg, Johannes Knoll, and Christian von Sikorski (2018). 'The "Spiral of Silence" Revisited: A Meta-Analysis on the Relationship Between Perceptions of Opinion Support and Political Opinion Expression', *Communication Research*, 45:1, 3–33.

McCrea, Rod, Zoe Leviston, and Iain A. Walker (2016). 'Climate Change Skepticism and Voting Behavior: What Causes What?', *Environment and Behavior*, 48:10, 1309–34.

McCright, Aaron M., Riley E. Dunlap, and Sandra T. Marquart-Pyatt (2015). 'Political Ideology and Views about Climate Change in the European Union', *Environmental Politics*, 25:2, 338–58.

Mildenberger, Matto, and Anthony Leiserowitz (2017). 'Public Opinion on Climate Change: Is There an Economy–Environment Tradeoff?', *Environmental Politics*, 26:5, 801–24.

Müller-Rommel, Ferdinand (1998). 'Explaining the Electoral Success of Green Parties: A Cross-National Analysis', *Environmental Politics*, 7:4, 145–54.

Müller-Rommel, Ferdinand (2002). 'The Lifespan and the Political Performance of Green Parties in Western Europe', *Environmental Politics*, 11:1, 1–16.

Petrocik, John R (1996). 'Issue Ownership in Presidential Elections, with a 1980 Case Study', *American Journal of Political Science*, 40:3, 825–50.

Pisani-Ferry, Jean, Simone Tagliapietra, and Georg Zachmann (2023). 'A New Governance Framework to Safeguard the European Green Deal', *Policy Brief*, available at https://www.bruegel.org/policy-brief/new-governance-framework-s

afeguard-european-green-deal?fbclid=IwAR10Sm32d3ER-I7T236t
kRssgmZIWbApn9pdxqCpA3c7bPK3xQY4V1xDWR8.

Pollex, Jan, and Lars E. Berker (2022). 'Parties and Their Environmental Problem
Perceptions – Towards a More Fundamental Understanding of Party Positions
in Environmental Politics', *Zeitschrift für Vergleichende Politikwissenschaft*, 15:4,
571–91.

Puleo, Leonardo (2023). 'What Drives Environmental Preferences? Evaluating the
Importance of the Ideological Dimension for Voters' Preferences on the
Environmental Issue', *La cittadinanza europea*, 2023/1, 59–73.

Reif, Karlheinz, and Hermann Schmitt (1980). 'Nine Second-Order National
Elections – A Conceptual Framework for the Analysis of European Election
Results', *European Journal of Political Research*, 8:1, 3–44.

Reinl, Ann-Kathrin, and Daniela Braun (2023). 'European Election Studies 2019:
Manifesto Project', GESIS, Köln. ZA7891 Datenfile Version 1.0.0.

Schäfer, Constantin, Sebastian A. Popa, Daniela Braun, and Hermann Schmitt
(2021). 'The Reshaping of Political Conflict over Europe: From Pre-Maastricht
to Post-Euro-Crisis', *West European Politics*, 44:3, 531–57.

Schaffer, Lena Maria, Bianca Oehl, and Thomas Bernauer (2021). 'Are Policymakers
Responsive to Public Demand in Climate Politics?' *Journal of Public Policy*,
42:1, 136–64.

Schaller, Stella, and Alexander Carius (2019). *Convenient Truths: Mapping Climate
Agendas of Right-Wing Populist Parties in Europe*. Adelphi: Berlin.

Schmitt, Hermann, Sara B. Hobolt, Wouter van der Brug, and Sebastian A. Popa
(2022). 'European Parliament Election Study 2019, Voter Study', GESIS, Cologne.
ZA7581 Data File Version 2.0.1.

Schwörer, Jakob (2023). 'Mainstream Parties and Global Warming: What
Determines Parties' Engagement in Climate Protection?' *European Journal of
Political Research*, 63:1, 303–25.

Seeberg, Henrik Bech (2016). 'Opposition Policy Influence through Agenda-Setting:
The Environment in Denmark, 1993-2009', *Scandinavian Political Studies*, 39:2,
185–206.

Spoon, Jae-Jae, Sara B. Hobolt, and Catherine de Vries (2014). 'Going Green:
Explaining Issue Competition on the Environment', *European Journal of Political
Research*, 53:2, 363–80.

Spoon, Jae-Jae, and Cristopher J. Williams (2022). 'Environmental Chauvinism?
Explaining Issue Expansion among Non-Mainstream Parties', *Party Politics*,
29:6, 1077–87.

Tingley, Dustin, and Michael Tomz (2020). 'International Commitments and
Domestic Opinion: The Effect of the Paris Agreement on Public Support for
Policies to Address Climate Change', *Environmental Politics*, 29:7, 1135–56.

Tvinnereim, Endre, Ole Martin Lægreid, Xiaozi Liu, Daigee Shaw, Christopher
Borick, and Erick Lachapelle (2020). 'Climate Change Risk Perceptions and the
Problem of Scale: Evidence from Cross-National Survey Experiments',
Environmental Politics, 29:7, 1178–98.

van der Eijk, Cees, and Mark N. Franklin (2004). 'Potential for Contestation on
European Matters at National Elections in Europe', in G. Marks and M. R.
Steenbergen (eds.), *European Integration and Political Conflict*. Cambridge:
Cambridge University Press, 32–50.

van der Eijk, Cees, Mark N. Franklin, and Erik Oppenhuis (1996). 'The Strategic
Context: Party Choice', in C. Van Der Eik and M. Franklin (eds.), *Choosing*

Europe? The European Electorate and National Politics in the Face of the Union. Ann Arbor, MI: The University of Michigan Press.

van der Eijk, Cees, Wouter van der Brug, Martin Kroh, and Mark N. Franklin (2006). 'Rethinking the Dependent Variable in Voting Behavior: On the Measurement and Analysis of Electoral Utilities', *Electoral Studies*, 25:3, 424–47.

Van Haute, Emilie, ed. (2016). *Green Parties in Europe*. London: Routledge.

Vihma, Antto, Gunilla Reischl, and Astrid Nonbo Andersen (2021). 'A Climate Backlash: Comparing Populist Parties' Climate Policies in Denmark, Finland, and Sweden', *The Journal of Environment & Development*, 30:3, 219–39.

Wang, Congcong, and Dan Keith (2020). 'The Greening of European Radical Left Parties: Red and Green Politics', *Journal of Contemporary European Studies*, 28:4, 494–513.

Weaver, Alicia A. (2002). 'Determinants of Environmental Attitudes', *International Journal of Sociology*, 32:1, 77–108.

Weidner, Helmut, and Lutz Mez (2008). 'German Climate Change Policy: A Success Story with Some Flaws', *The Journal of Environment & Development*, 17:4, 356–78.

Weko, Silvia (2021). 'Communitarians, Cosmopolitans, and Climate Change: Why Identity Matters for EU Climate and Energy Policy', *Journal of European Public Policy*, 29:7, 1072–91.