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What drives environmental preferences? Evaluating the importance of the ideological dimension for voters' preferences on the environmental issue

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1. Introduction

In recent years several scientific reports have provided a disheartening outlook on the future of climate change[1]. Nowadays, the links between anthropic activity and the process of climate change and environmental deterioration cannot be defused or denied anymore.

The ecological transition has become a hot topic on the European Union (EU) agenda. The Next Generation EU (as the EU's economic response to the COVID-19 crisis) assigned unprecedented resources for the member states' investment in green energy and energy efficiency[2]. Furthermore, the European Green Deal (EGD) as formulated in 2019 by the European Commission set an ambitious plan to limit the consumption of fossil fuels, in order to reach carbon neutrality by 2050[3]. Despite this policy activism at the EU level, national political elites traditionally displayed low attention towards the environmental issue[4]. The ecological transition requires hard strategic choices, that politicians might not be interested to pursue when their voters hold differing preferences on environmental protection.

In 2019 the Friday for Future (FFF) movement raised an unprecedented level of awareness towards climate change across the European citizenry. Indeed, FFF demonstrations brought millions of citizens to strike for environmental protection. Despite the growing attention to the FFF movement and its impact[5], so far to the best of our knowledge, no comparative studies at the public opinion level have been conducted using post-2019 data.

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[1] S.A. Robinson, *Climate Change Adaptation in SIDS: A Systematic Review of the Literature Pre and Post the IPCC Fifth Assessment Report*, in *Wiley Interdisciplinary Reviews: Climate Change*, 11(4)/2020.

[2] C. de la Porte and M.D. Jensen, *The next Generation EU: An Analysis of the Dimensions of Conflict behind the Deal*, in *Social Policy and Administration,* 55(2)/2021, p. 388 ff.

[3] I. von Homeyer, S. Oberthür, and A. J. Jordan, *EU Climate and Energy Governance in Times of Crisis: Towards a New Agenda*, in *Journal of European Public Policy*, 28(7)/2021, p. 959 ff.

[4] N. Carter, *Greening the Mainstrea: Party Politics and the Environment*, in *Environmental Politics*, 22(1)/2013, p. 73ff.

[5] D. della Porta and M. Portos, *Rich Kids of Europe ? Social Basis and Strategic Choices in the Climate Activism of Fridays for Future*, in *Italian Political Science Review/Rivista Italiana di Scienza Politica,* 2021, p. 1 ff.

Against this backdrop, the current analysis aims precisely at exploring the factors influencing – at an individual level – citizen preferences on the environmental issue by employing data collected after June 2019. We provide a continuous measurement of environmental preferences based on the European Election Study data (EES)[6]. This research design allows us to show whether socio-demographic, ideological and value-based factors play a role in shaping the policy preferences of the citizens towards the environment. Furthermore, we integrate our analysis with an overview of the salience of the environmental issue over the last 10 years (from 2012 to 2021). Our investigation focuses on three-EU founder countries: Italy, Germany and France, that played a decisive role in the development of the EGD at the EU level.

Our results show that the issue salience – at the public opinion level – in Italy is substantially lower than the one registered in France and Germany. Furthermore, after the peak registered in 2019 riding the wave of the FFF movement; the issue salience falls back to the pre-2019 period (contrary to the resilience in the attention registered in France and Germany). Additionally, we find that in the three countries, the preferences on the environmental issue are still highly conditioned by the citizens' ideological positions, where the leftist voters are largely more pro-environmentalist than the rightist ones. Furthermore, we observed that the alleged division between cosmopolitan vs. communitarian voters[7] does not play a uniform effect in our three cases. Specifically, in Italy Eurosceptic voters are more likely to show pro-environmental attitudes compared to Europhile ones.

In the remainder of this article, we first review the relevant literature on the impact of socio-demographic, ideological and value-based predictors on environmental and climate-change preferences. Then, section 3 introduces the data and discusses the design of the current analysis. Section 4 presents the descriptive data on the environmental salience in Italy, Germany and France and section 5 presents our empirical results. Finally, the conclusion discusses the relevance of the findings, linking them with new patterns of research.

2. Predicting preferences on the environmental issue: the impact of ideological, socio-demographic variables, and value-based features

The literature on the determinants of environmental preferences developed with a marked focus on the US. In the last decade, several studies underlined how ideological beliefs, the degree of education, economic well-being and gender played a crucial role – among US citizens – in shaping their preferences on environmental protection[8]. Recently, increased attention has been devoted also to other countries revealing how the insights from the US literature cannot be easily generalized[9]. This section will review the main findings of the literature on the role of ideological and socio-demographic predictors in shaping pro-environmental preferences.

2.1 Socio-demographic features

Several studies tested across countries the relevance of socio-demographic variables in predicting citizen preferences on the environmental issue[10]. However, most recent pieces of research tend to

[6] H. Schmitt et. al., *European Parliament Election Study 2019*, *Voter Study*, GESIS Data Archive, 2022.
[7] S. Weko, *Communitarians, Cosmopolitans, and Climate Change: Why Identity Matters for EU Climate and Energy Policy*, in *Journal of European Public Policy,* 29(7)/2022, p. 1072 ff.
[8] A. M. Mccright and R. E. Dunlap, *The Politicization Of Climate Change And Polarization In The American Public's Views Of Global Warming*, *2001-2010*, in *Sociological Quarterly*, 52(2)/2011, p. 155 ff.; M. J. Hornsey et al., *Meta-Analyses of the Determinants and Outcomes of Belief in Climate Change*, in *Nature Climate Change*, 6/2016, p. 622 ff.
[9] G.B. Lewis, R. Palm, B. Feng, *Cross-National Variation in Determinants of Climate Change Concern*, in *Environmental Politics*, 28(5)/2019, p. 793 ff.
[10] T. L. Milfont et al., *The Climate-Change Dilemma: Examining the Association between Parental Status and Political Party Support*, in *Journal of Applied Social Psychology,* 42(10)/2012, p. 2386 ff.; W. Poortinga et al., *Uncertain Climate: An*

disconfirm or at least soften the impact of these variables in explaining environmental preferences[11].

In theoretical terms, age and gender might affect environmental preferences, because they signal those individuals holding more limited power in the society. In this respect, older people and males are more deeply part of the existing power structure and might feel to have more to lose in implementing policy changes that will actively tackle climate change[12].

As observed in literature reviews on environmental attitudes in the US context, more than half of the existing studies revealed that women are significantly more concerned about the issue[13]. However, cross-national studies revealed only a small and irrelevant gender effect[14].

On age, the findings are mixed and the impact of age in shaping pro-environmental attitudes does not seem to hold outside the US and the UK. In a comparative study, Berit Kvaløy and her colleagues[15] revealed a non-linear relationship between environmental attitudes and age where those aged 30 to 60 are the ones more concerned about the environmental issue. In this respect, Silvia Weko found that younger generations hold generally more pro-environment stances than older ones, but this relationship is far from being linear[16]. Millennials are more concerned about the environment than the Silent Generation; however, Millennials are less concerned than Generation X and Baby Boomers.

Referring to the impact of education and income, more educated and wealthier respondents are expected to perceive environmental protection in a positive light. In line with the expectations of the post-materialist values' literature[17], individuals with high income and high levels of education, once their basic material needs are satisfied, are more likely to place more emphasis on higher-order needs such as environmental protection. Furthermore, highly educated people should also be more able to better understand the complexity of climate change and its impacts. Previous studies found support for both income and educational effects in increasing environmental awareness[18] . Still, more recent comparative contributions revealed inconsistent effects [19].

2.2 Ideological Features

On an ideological ground, extant literature suggested a strong link between leftist beliefs and the support for pro-environmental positions in the US context[20]. In this respect, a "conservative moral

Investigation into Public Scepticism about Anthropogenic Climate Change, in *Global Environmental Change,* 21(3)/2011, p. 1015 ff.

[11] M. J. Hornsey et al., *Meta-Analyses of the Determinants*, cit.; J. Shi et al., *Knowledge as a Driver of Public Perceptions about Climate Change Reassessed*, in *Nature Climate Change*, 6/2016, p. 759 ff.; W. Poortinga et al., *Climate Change Perceptions and Their Individual-Level Determinants: A Cross-European Analysis*, in *Global Environmental Change*, 55(March)/2019, p. 25 ff.; G.B. Lewis, R. Palm, B. Feng, *Cross-National Variation,* cit.

[12] K.T. Stevenson et al., *Overcoming Skepticism with Education: Interacting Influences of Worldview and Climate Change Knowledge on Perceived Climate Change Risk among Adolescents*, in *Climatic Change*, 126/2014, p. 293 ff.; K.M. Jylhä and N. Akrami, *Social Dominance Orientation and Climate Change Denial: The Role of Dominance and System Justification*, in *Personality and Individual Differences*, 86/2015, p. 108 ff.

[13] A.M. McCright, R. E. Dunlap, S. T. Marquart-Pyatt, *Political Ideology and Views about Climate Change in the European Union*, *Environmental Politics,* 25(2)/2016, p. 338 ff.; G.B. Lewis, R. Palm, B. Feng, *Cross-National Variation*, cit.

[14] M. J.Hornsey et al., *Meta-Analyses of the Determinants*, cit; G.B. Lewis, R. Palm, B. Feng, *Cross-National Variation*, cit.

[15] B. Kvaløy, H. Finseraas, and O. Listhaug, *The Publics' Concern for Global Warming: A Cross-National Study of 47 Countries*, in *Journal of Peace Research*, 49(1)/2012, p. 11 ff.

[16] S. Weko, *Communitarians, Cosmopolitans, and Climate Change*, cit.

[17] R F. Inglehart, *Modernization and Postmodernization: Cultural, Economic, and Political Change in 43 Democracies*, Princeton, 1997.

[18] S. T. Marquart-Pyatt, *Are There Similar Sources of Environmental Concern? Comparing Industrialized Countries*, in *Social Science Quarterly*, 89(5)/2008, p. 1312 ff.

[19] M. J. Hornsey et al., *Meta-Analyses of the Determinants*, cit.; G.B. Lewis, R. Palm, B. Feng, *Cross-National Variation*, cit.

[20] R. J. Brulle, J. Carmichael, and J. C. Jenkins, *Shifting Public Opinion on Climate Change: An Empirical Assessment of Factors Influencing Concern over Climate Change in the U.S., 2002-2010*, in *Climatic Change*, 114/2012, p. 169 ff.; J.T. Carmichael and R. J. Brulle, *Elite Cues, Media Coverage, and Public Concern: An Integrated Path Analysis of Public Opinion on Climate Change,*

system' might be at odds with the pro-environmental beliefs, because it attributes a moral authority (and superiority) of the free market in finding an equilibrium between social costs and economic growth"[21]. Precisely, considering the adjustment costs that environmental issues require to a capitalist economic system, conservatives might soften their willingness to acknowledge environmental risks[22]. Comparative studies revealed that this link might be more tenuous outside the US[23]. This can be explained by a lower degree of issue polarization both at the elite and citizens' levels. In this respect, environmentalism in the US context appears to be encapsulated into a broader and polarizing division opposing liberal vs. conservative mindsets[24]. Along these lines, a comparative study found that elite polarization can magnify the impact of ideology on environmental preferences[25].

Despite some country-specific differences, the relevance of the left-right division in predicting preference for the environment has been confirmed also referring to the Western European countries[26]. In this respect, in all-Western European countries, green parties have been progressively integrated within the leftist camp[27]. This identification of the green parties with the left-of-centre side of the political spectrum might have likely contributed to the inclusion of the pro-environment values within the broader leftist repertoire also in Western Europe and, in this respect, the country-specific differences might be read as a function of the different degree of success and institutionalization of the green parties in Western Europe.

Furthermore, the impact of the ideological drivers in shaping attitudes on the environment might also be stronger on a specific sociodemographic subgroup: the white males (WMs). The idea is not based on biological considerations. Kahan and his colleagues argued that WMs that share a hierarchical conception of society tend to see themselves on the top of the social pyramid and for this reason they tend to tone down or explicitly deny the environmental risk because it can entail a source of instability for the existing social order[28]. In this respect, McCright and Dunlap suggested that attitudes toward the environment might be driven by the interaction between structural factors and political beliefs[29]. In this respect, according to them, WMs will tend to be less worried about environmental risks when they share a conservative-oriented and hierarchical conception of social order, posing themselves at the summit of such a pyramid. The Conservative White Male (CMW) effect is thus embedded in the tradition of political psychology associating the conservative mindset with a system of justification supporting the preservation of the existing power balance within the society.

Over the last decades, the literature has suggested how the left/right dimension is not the only dimension of political competition and that the second line of conflict is emerging cross-nationally in Europe based on cultural values. Several labels have been employed to define this division:

2001–2013, in *Environmental Politics*, 26(2)/2017, p. 232 ff.; A. M. McCright et al., *Ideology, Capitalism, and Climate: Explaining Public Views about Climate Change in the United States*, in *Energy Research and Social Science*, 21(November)/2016, p. 180 ff.

[21] G. Lakoff, *Why It Matters How We Frame the Environment*, in *Environmental Communication,* 4(1)/2010, p. 70 ff.

[22] A.M. McCright and R.E. Dunlap, *Bringing Ideology in: The Conservative White Male Effect on Worry about Environmental Problems in the USA*, in *Journal of Risk Research*, 16(2)/2013, p. 211 ff.

[23] A.M. McCright, R.E. Dunlap, S. T. Marquart-Pyatt, *Political Ideology and Views about Climate Change in the European Union*, cit.

[24] T. Bolsen, J.N. Druckman, F. Lomax Cook, *Citizens', Scientists', and Policy Advisors' Beliefs about Global Warming*, in *Annals of the American Academy of Political and Social Science,* 658(1)/2015, p. 271 ff.; D. M. Kahan, *The Politically Motivated Reasoning Paradigm, Part 1: What Politically Motivated Reasoning Is and How to Measure It*, in *Emerging Trends in the Social and Behavioral Sciences*, 2016.

[25] S. Birch, *Political Polarization and Environmental Attitudes: A Cross-National Analysis*, in *Environmental Politics*, 29(4)/2020, p. 697 ff.

[26] W. Poortinga et al., *Climate Change Perceptions and Their Individual-Level Determinants*, cit.; A. M. McCright, R.E. Dunlap, and S.T. Marquart-Pyatt, *Political Ideology and Views about Climate Change in the European Union*, cit.

[27] P. Mair, *The Green Challenge and Political Competition: How Typical is the German Experience?*, in *German Politics*, 10(2)/2001, p. 99 ff.

[28] D.M. Kahan et al., *Culture and Identity-Protective Cognition : Explaining the White-Male Effect in Risk Perception*, in *Journal of Empirical Legal Studies,* 4(3)/2007, p. 465 ff.

[29] A.M. McCright and R.E. Dunlap, *Bringing Ideology in*, cit.

demarcation vs. integration[30], libertarian-universalistic vs. traditionalist-communitarian[31], universalism vs. particularism[32] and cosmopolitan vs communitarian[33]. This body of literature underlines how the processes of EU integration, globalization, and de-nationalization create a division among 'winners' and 'losers', where the *winners* endorse a cosmopolitan global order marked by the retreat of the nation-state and the development of transnational polities and the *losers* claim the need to restore a more proximate sense of community often based on the alleged ancestral values of the nation. Looking at political supply, radical right and green parties have been often considered as the opposite poles of this political division [34]. A seminal contribution by Silvia Weko[35] recently argued that in Europe, those citizens sharing a *cosmopolitan* set of beliefs on the EU integration and migration might be more likely to exhibit a pro-environmental.

2.3 Value-based features

Previous studies showed that citizen engagement in environmental protection can push governments to engage in the issue [36]. Currently, the studies linking political trust and environmental attitudes are revealing a positive relationship[37]. In a wide comparative analysis including 36 countries across the world, Lewis and his colleagues revealed that believing in democratic principles (e.g. free election, equality rights, political freedom) is the most consistent predictor of pro-environmental stances[38].

However, the rise of the 'Fridays for Future' social movement might have altered this relationship. If we look at Greta Thunberg's speeches – the main inspirator of the movement – we can identify a strong anti-elitist component addressed against *some* elites, and specifically to current political elites. According to Thunberg, politicians engage in endless and useless negotiation, instead of putting their efforts into contrasting the environmental threats by following the *vox scientifica* instead of *vox populi*[39]. This contemporary configuration of the Friday for Future movement might stimulate an association between political mistrust and pro-environmental attitudes. Furthermore, in Western Europe – and democratically advanced democracies – political trust is largely declining[40]. Furthermore, post-materialist attitudes at the individual level are negatively correlated with political trust[41]. Indeed, one of the outcomes of Inglehart's silent revolution thesis[42] has been the development

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[30] H.Kriesi et al., *Globalization and the Transformation of the National Political Space: Six European Countries Compared*, in *European Journal of Political Research*, 45(6)/2006, p. 921 ff.; H. Kriesi et al., *West European Politics in the Age of Globalization,*Cambridge, 2008; H. Kriesi et al., *Political Conflict in Western Europe*, Cambridge, 2012.

[31] S. Bornschier, *Cleavage Politics and the Populist Right: The New Cultural Conflict in Western Europe*, Philadelphia, 2010

[32] P. Beramendi et al., *The Politics of Advanced Capitalism,* Cambridge, 2015.

[33] C. Teney, O.P. Lacewell, and P. De Wilde, *Winners and Losers of Globalization in Europe: Attitudes and Ideologies*, in *European Political Science Review*, 6(4)/2014, p. 575 ff.

[34] L. Hooghe and G. Marks, *Cleavage Theory Meets Europe's Crises: Lipset, Rokkan, and the Transnational Cleavage*, in *Journal of European Public Policy,* 25(1)/2018, p. 109 ff.

[35] S. Weko, *Communitarians, Cosmopolitans, and Climate Change*, cit.

[36] D.J. Fiorino, *Explaining National Environmental Performance : Approaches , Evidence , and Implications*, in *Policy Sciences*, 44/2011, p. 367 ff.

[37] A. Franzen and D. Vogl, *Two Decades of Measuring Environmental Attitudes: A Comparative Analysis of 33 Countries*, in *Global Environmental Change*, 23(5)/2013, p. 1001 ff.; B. Cotta and V. Memoli, *Do Environmental Preferences in Wealthy Nations Persist in Times of Crisis? The European Environmental Attitudes (2008-2017)*, in *Italian Political Science Review / Rivista Italiana di Scienza Politica*, 50(1)/2020, p. 1 ff.

[38] G.B. Lewis, R. Palm, B. Feng, *Cross-National Variation in Determinants of Climate Change Concern,* cit. p. 804.

[39] M. Zulianello and D. Ceccobelli, *Don ' t Call It Climate Populism : On Greta Thunberg ' s Technocratic Ecocentrism*, in *Political Quarterly*, 91(3)/2020, p. 623 ff.

[40] R. J. Dalton, *Democratic Challenges, Democratic Choices: The Erosion of Political Support in Advanced Industrial Democracies*, New York, 2004.

[41] J. W. van Deth and E. Scarbrough, *The Impact of Values: Beliefs in Government*, New York, 1995.

[42] R. F. Inglehart, *The Silent Revolution: Changing Values and Political Styles Among Western Publics*, Princeton, 1977.

of general distrust towards the principles of hierarchy and paternalism in favour of a more individualistic understanding of political (and collective) action[43].

2.4 Hypotheses

The review of the literature suggests that in the European context, ideological variables are expected to shape attitudes toward the environment. The role of the socio-demographic predictors seems to explain the position on the environment in the US, while their impact appears more blurred in European countries (and generally outside the US). In this respect, as noted by Lewis and his colleagues: "[g]ender, age, and religiosity patterns in the US may simply reflect that country's ideological divide, with women, young people, and the less religious being more liberal"[44]. Still, also in the US, we have some pieces of evidence suggesting that socio-demographic variables tend to defuse their significance when ideology is included in the model[45]. In this respect, a similar trend has also been observed in the European context[46].

Survey research has often found a stronger predictive potential of the ideological variable in the US rather than in the European context. This can be explained by the fact that in the US context, the environmental issue is part of a broader dichotomic conflict opposing Democrats and Republicans and fuelled by the escalation of animosity among the supporter of opposite parties (i.e. affective polarization)[47]. Still, we might argue that the ideological embeddedness of the environmental issue within the left-right continuum is increasingly crucial also in Europe. First, climate change scepticism has become politicized in Europe by – almost exclusively – far-right political actors[48]. Second, environmentalism has been introduced into the agenda by the green parties that despite some ambiguities are nowadays both in relational and in ideological terms part of the centre-left area[49]. Third, recent analysis showed that the importance of the ideological predictors is – also in Europe – influenced by the extent of polarization within the party system[50]. This suggests that the presence of far-right actors might increase the significance of ideological preferences in shaping attitudes towards environmental protection.

Additionally, we already discussed the dimensional change of the European party systems and the rise of a cultural dimension of political competition. In this respect, environmentalism is expected to be an attribute of a cosmopolitan ideological preference, that includes liberal values, support for EU integration and support for internationalism[51]. Aggregate analysis already found some preliminary support for this argument[52]. Still, cross-country differences have not yet been adequately discussed.

Finally, recent literature found the existence of a link between democratic support – operationalized as political trust – and preferences on the environmental issue. Here we argued that some of the anti-establishment credentials of the FFF movement may have altered such a relationship, connecting low levels of political trust towards representative politics' ability to deal with environmental problems with the induvial preferences on environmental protection.

From this discussion of the literature, I derive the following expectations:

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43 R. J. Dalton, W.P. Burklin, A. Drummond, *Public Opinion and Direct Democracy*, in *Jorunal of Democracy*, 12(4)/2001, p. 141 ff.
44 G.B. Lewis, R. Palm, B. Feng, *Cross-National Variation in Determinants of Climate Change Concern*, cit., p. 807.
45 M. J. Hornsey et al., *Meta-Analyses of the Determinants and Outcomes of Beliefs in Climate Change*, cit.
46 G.B. Lewis, R. Palm, B. Feng, *Cross-National Variation*, cit.
47 L. Mason, *Uncivil Agreement. How Politics Became Our Identity,* London, 2018.
48 B. Forchtner, *Climate Change and the Far Right*, in *Wiley Interdisciplinary Reviews: Climate Change*, 10(5)/2019; A. Küppers, *'Climate-Soviets,' 'Alarmism,' and 'Eco-Dictatorship': The Framing of Climate Change Scepticism by the Populist Radical Right Alternative for Germany*, in *German Politics*, 2022.
49 G. Price-Thomas, *Green Party Ideology Today*, in *Green Parties in Europe*, New York, 2016, p. 280 ff.
50 S. Birch, *Political Polarization and Environmental Attitudes*, cit.
51 P. De Wilde et al., *The Struggle over Borders: Cosmopolitanism and Communitarianism*, Cambridge, 2019.
52 S. Weko, *Communitarians, Cosmopolitans, and Climate Change*, cit.

H1: Ideological variables correlate with pro-environmental stances. In terms of direction, leftists and cosmopolitans will be more likely to hold pro-environment positions than rightist and communitarian citizens.

H2: The impact of socio-demographic variables is expected to fade away when the ideological variables are included in the analysis.

H3: Commitment to democratic principles correlates with pro-environmental positions.

H4: Low degree of institutional trust correlates with pro-environmental positions.

3. Data and Methods

The analysis of the fluctuating salience in the three countries is conducted by employing different waves of the Eurobarometer (EB)[53] to measure the importance of the environmental issue across citizens. Precisely, we analyse the percentage of citizens indicating 'The environment, climate, and energy issues' as one of the two 'most important issues facing their country'[54].

The study of the determinants of environmental preferences is conducted by employing the data of the post-electoral survey *European Election Study 2019*[55]. The dependent variable of our analysis refers to citizen preferences on the environmental issue. The EES – at the best of our knowledge – is the only survey providing a positional measurement of environmental attitudes, asking respondents to locate themselves on an 11-point scale, where 0 represents "Environmental protection should take priority even at the cost of economic growth" and 10 stands for "Economic growth should take priority even at the cost of environmental protection". To ease data interpretation I reverted the scale, indicating "0" as the anti-environmentalist pole and "10" as the pro-environmentalist pole of the distribution.

The predictors of environmental attitudes are explored by looking at socio-demographic, ideological and value-based variables. Regarding socio-demographic variables, we explored individuals' gender, age, education, social class and living area. Gender is simply operationalized as a dichotomous variable differentiating between males and females. Age is operationalized as a categorical variable, distinguishing among five generations. Precisely, we considered Generation Z (born after 1996), Millennials (born between 1996 and 1981), Generation Z (born between 1980 and 1965), Baby Boomers (born between 1964 and 1946), and Silent Generation (born before 1946). Education is operationalized distinguishing between individuals with 15 years – or less – of formal education; an individual with 16-19 years of formal education, and individuals with more than 19 years of formal education. Social class is operationalised by grouping individuals into three categories: those self-identifying with working and lower-middle social classes; those identifying with the middle class and those that reported being members of upper-middle and upper social classes. Finally, we further distinguished between individuals declaring to live in rural areas and small/middle towns and those declaring to live in large cities.

Regarding ideological preferences, we looked at citizen preferences on the left-right dimension, EU integration and same-sex marriages. The classic ideological left-right dimension is measured by asking citizens to locate themselves on an 11-point scale where 0 represents the leftist pole and 10 is the rightist one. To ease the comparison with the categorical predictors, I rescaled the variable into a 0-1 interval. Preference for EU integration and same-sex marriages are interpreted as a proxy for measuring cosmopolitan values, where preferences on EU stand for the support for supranational integration, and same-sex marriages' preferences are a proxy for measuring liberal values. Previous

[53] EB 77.3 (2012), EB 79.3 (2013), EB 81.2 (2014), EB 83.1 (2015), EB 85.2 (2016), EB 87.3 (2017), EB 89.1 (2018), EB 91.2 (2019), EB 93.1 (2020), EB 94.3 (2021).

[54] For further details see https://www.gesis.org/en/eurobarometer-data-service/search-data-access/eb-trends-trend-files/list-of-trends/polit-issues-national.

[55] H. Schmitt, S.B. Hobolt, W. van der Brug, *European Parliament Election Study 2019*, cit.

studies conflated into a single scale EU and migration positions[56]; however, we observed that in our sample migration and EU positions are scarcely related (Cronbach Alpha<0.35). Furthermore, in order to avoid multi-collinearity issues, we excluded migration attitudes from our analysis because it is correlating with LR ideological positions (p>0.4). In this respect, the impact of cosmopolitan values is explored by looking separately at the impact of EU and same-sex marriage preferences. In terms of measurement, these variables have been rescaled into a 0-1 interval, where "0" stands for 'European unification has already gone too far'/'fully opposes same-sex marriages' and "1" indicates 'European unification should be pushed further'/fully in favour same-sex marriages (see the Appendix for the correlation matrix among ideological predictors).

In terms of value-based predictors, we explored the degree of institutional mistrust and democratic values. More precisely, we operationalized institutional mistrust by looking at individual trust towards the national parliament. The EES asked the respondents to locate themselves on a 5-point Likert scale ranging from those that declared to not trust the national parliaments at all, to those that reported to totally trusting them. I operationalized institutional mistrust as a dichotomous variable distinguishing those that do not trust the parliament from the rest of the respondents. Regarding democratic values, the EES asks the respondents: "How important is it for you to live in a country that is governed democratically? On this scale where 0 means it is *not at all important* and 10 means *absolutely important* what position would you choose?". Also in this case, we rescaled the variable into a 0-1 interval.

In terms of methods, the importance of ideological, socio-demographic and value-based predictors is assessed through Ordinary Least Square regression, running separate models for the three countries under analysis. The descriptive statistics of the variables employed in the models are provided in table 2.

Table 2. Descriptive Statistics

	Italy				
	Mean	**Min**	**Max**	**SD**	**N**
Dependent Variable					
Environmental Attitudes	6.74	0	10	2.72	977
Socio-Demographic					
Gender		0	1		998
Age (generations)		0	4		1000
Education		0	2		941
Social Class		0	2		976
Rural vs. Urban		0	1		1000
Ideological					
EU	0.57	0	1	0.31	925
Same-sex marriages	0.57	0	1	0.38	971
Left-Right	0.54	0	1	0.3	889
Value-based					
Trust		0	1		984
Democratic Commitment	0.87	0	1	0.19	981

[56] S. Weko, *Communitarians, Cosmopolitans, and Climate Change*, cit.

Germany					
	Mean	**Min**	**Max**	**SD**	**N**
Dependent Variable					
Environmental Attitudes	6.56	0	10	2.76	950
Socio-Demographic					
Gender		0	1		998
Age (generations)		0	4		1000
Education		0	2		969
Social Class		0	2		965
Rural vs. Urban		0	1		1000
Ideological					
EU	0.58	0	1	0.31	907
Same-sex marriages	0.66	0	1	0.37	945
Left-Right	0.48	0	1	0.2	920
Value-based					
Trust		0	1		944
Democratic Commitment	0.89	0	1	0.18	957

France					
	Mean	**Min**	**Max**	**SD**	**N**
Dependent Variable					
Environmental Attitudes	6.48	0	10	2.77	948
Socio-Demographic					
Gender		0	1		1000
Age (generations)		0	4		1000
Education		0	2		985
Social Class		0	2		966
Rural vs. Urban		0	1		1000
Ideological					
EU	0.46	0	1	0.32	877
Same-sex marriages	0.63	0	1	0.37	938
Left-Right	0.54	0	1	0.28	853
Value-based					
Trust		0	1		949
Democratic Commitment	0.84	0	1	0.21	939

Source: *European Election Study* (EES) 2019 (H. Schmitt, S.B. Hobolt, W. van der Brug)

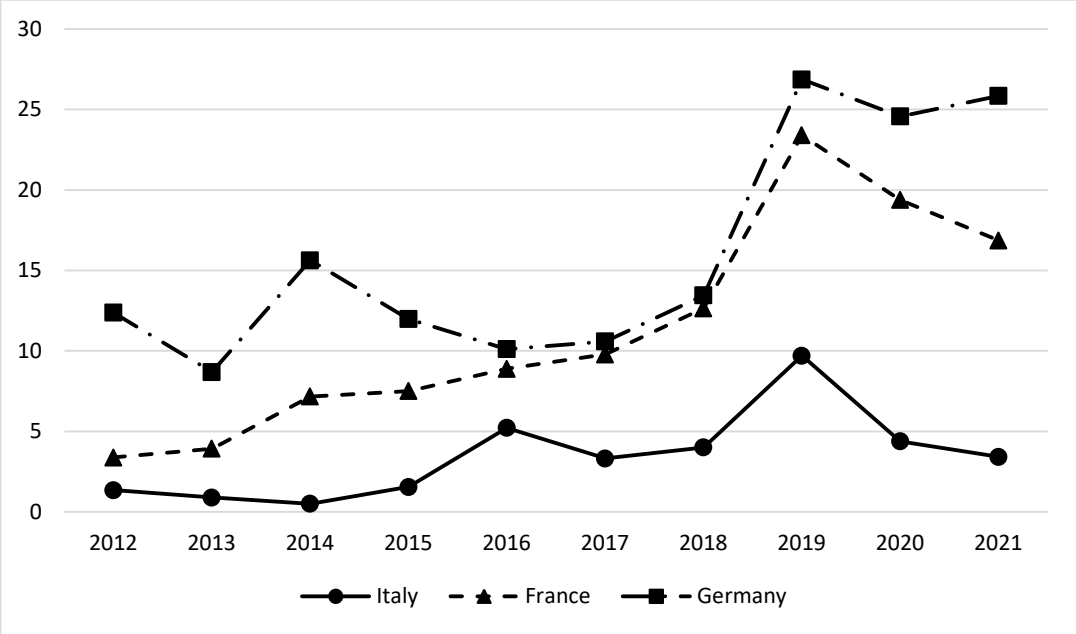
4. The Evolution of the Environmental issue (2012-2021)

Figure 1 shows the trends in the aggregate public opinion salience of the environmental issue in Italy, Germany and France. Among the three countries, Italy displays – by far – the lowest degree of attention towards the environmental issue during the period analysed (2012-2021). Precisely, excluding 2016

(5.2 per cent) and 2019 (9.7 per cent), the salience on the environment in Italy is constantly below 5 per cent. In France, attention towards the environment displays a constant increase reaching its peak in 2019 (19.38 per cent) and witnessing a relative decline in the following years. In Germany, the aggregate salience on the environmental issue revealed an important peak also before 2019, precisely in 2014 when more than 15 per cent of the German respondents identified the environmental issue among the two top priorities of the country. Still, as in the other two cases, the peak has been reached in 2019, when more than one-quarter of the respondents (26.9 per cent) ranked the environment among the two country's top priorities.

2019 marks a year of critical attention on the environment, as a consequence of the social mobilization of the FFF that pushed thousands of people to manifest their concern towards environmental protection (de Moor et al., 2021). In all three countries, the issue salience is doubled if compared with the one displayed in 2018. Some doubts are cast on the stability of such a level of issue attention. In all three countries, indeed, we witness a decrease in environmental salience after 2019. This comes with no surprise. The two-year period 2020-21 has been characterized by the emergence of the COVID-19 pandemic in Europe. So, health and economic issues contributed to the shift away from the environment the focus of citizens' attention. Still, important caveats are needed in differentiating among the three cases. Indeed, both in France and in Germany, even if the issue salience on the environment decreases both in 2020 and 2021; it remained higher than all the other pre-2019 years. In this respect, the environmental issue might have stably entered within the core interests of German and French citizens. On the contrary in Italy, the collapse of the environmental salience after 2019 brought back the issue's attention below 5 per cent. In 2021 in Italy, only 3.4 per cent of the respondents indicated the environmental issue among the two top country's priorities. This suggests that in terms of attention, the environmental issue will likely remain at the margins of the Italian political debate.

Figure 1. Public Opinion Salience of the Environmental Issue in Italy, Germany, and France (2012-2021)



Source: Author's elaboration based on EB 77.3 (2012), EB 79.3 (2013), EB 81.2 (2014), EB 83.1 (2015), EB 85.2 (2016), EB 87.3 (2017), EB 89.1 (2018), EB 91.2 (2019), EB 93.1 (2020), EB 94.3 (2021).

5. The determinants of the preferences on the environmental issues in Italy, France, and Germany

This section tests the expectations by running OLS models on citizen preferences on the environmental issue. The models are constructed by assessing for each country the impact of ideological, socio-demographic and value-based predictors separately; then a final model tests the overall significance of the results for each country. All the models are available in the Appendix, while figure 2 shows only the significant predictors for each country. The remaining part of the section discusses the empirical findings.

5.1 Socio-Demographic Models

In Italy, socio-demographic variables do not play any role in predicting pro-environmental preferences (see model 1, Appendix). Furthermore, their correlation with environmental preference is very low ($r<0.05$), suggesting that in Italy gender, formal education, age, social class, and place of residence did not play a significant role in shaping preferences on the environmental issue.

In France, gender, education, and social class are not significant in predicting environmental attitudes. Still, generation cohorts explain some variance in environmental preferences (see model 5, Appendix). Looking at age as a continuous variable, being older than one year involves a more anti-environmentalist stance (0.2 points on our 11-point scale). This is confirmed by also applying a categorical measurement of the different generations. Indeed, the silent generation is on average 2 points less environmentalist than members of Generation X. Furthermore, living in large cities signifycantly increases the likelihood to hold pro-environmentalist stances. Precisely, those living in rural areas and small cities are on average 0.4 points less environmentalist than the citizens living in large cities.

In Germany, we find that both gender and generation cohorts influence the environmental stance (see model 9, Appendix). In Germany, being a woman increases of 0.7 points the likelihood to be more pro-environmentalist. Looking at age, there is not a linear relationship employing age expressed in years. However, looking at generations we find that citizens belonging to Generation Z are more environmentalist than Generation X.

Despite the significance of age and generation in France, and gender and generations in Germany, the variance explained in both cases by socio-demographic variables is remarkably low (2% in France and 3% in Germany)

5.2 Ideological Models

The ideological predictors appear as the crucial variables in explaining the citizens' positions on environmental issues in all three cases. Preferences on the L-R dimension and same-sex marriage issue are predicting the environmental stance in the expected direction. This means that leftist and pro-same-sex marriage citizens are more pro-environmentalist than the other citizens in Italy, France, and Germany. Specifically, in Italy, one point more towards the right (on an 11-point scale) makes on average citizens 0.19 points less environmentalist Almost the same coefficient (1.7) applies for a one-point higher inclination in opposing same-sex marriages (see model 2, Appendix). The effects have almost the same magnitude in France (1.8 for L-R and 2.3 for same-sex marriages; see model 6, Appendix), while in Germany are sensibly higher (3.6 for L-R and 2.4 for same-sex marriages; see model 10, Appendix).

However, the impact of the attitudes toward the EU attitudes on environmental preferences is quite surprising both in Italy and France. In Italy, EU attitudes show a limited – but significant – negative impact on environmental attitudes. This means that citizens who believe that the UE integration project has gone too far, display on average more pro-environmentalist positions. Despite the limited size of the coefficient (0.7), this finding indicates that in Italy liberal positions on

cultural issues (e.g. same-sex marriage) are linked with pro-environmentalism, however referring to the EU the relation is going in the opposite direction contrasting the finding by Weko. Also in France, the relationship between the EU attitudes and environmental preferences is presenting the same direction as the Italian case, however here their impact is not significant. Finally, in Germany citizens who believe that the UE integration project should be deepened, display on average more pro-environmentalist positions.

From the impact of the EU attitudes, we can derive two important considerations, first the presence of a neatly defined communitarian vs. cosmopolitan dimension cannot be easily taken for granted on a pan-European basis. Second, in those contexts where green parties have been traditionally close to radical left parties,[57] pro-environmental preferences are not associated with Europhile tendencies and can – as in the case of Italy[58] – converge towards Eurosceptic tendencies.

These pieces of evidence provide support for our first expectation and some preliminary support for our second expectation. Indeed, the ideological predictors explain more variance in environmental preferences than the socio-demographic ones. Precisely, the ideological variable explains the 12% of the variance in Italy, the 16% in France and the 27% in Germany.

5.3 Value-based Models

Democratic commitment is – jointly with L-R and same-sex preferences – the only variable that appears consistent across all three cases. Precisely, in Italy, one point more towards the democratic commitment on an 11-point scale makes average citizens 0.28 points more environmentalist (see model 3, Appendix). The magnitude of the effect is smaller in France (1.1; see model, Appendix), but higher in Germany (3.4; see model 11).

Political mistrust is positively correlated and significant in Italy. This means that those distrusting the national parliament are on average citizens 0.41 points more environmentalist (see model 3, Appendix). The relationship between trust and environmental preferences is not significant in France (albeit following the same direction as in Italy) and in Germany (showing an opposite pattern).

These results provide support for expectation 3 and disconfirm expectation 4 (in France and Germany). The significance of the positive relationship between mistrust and pro-environmentalist stances in Italy might be linked to the role played by the M5S in politicizing the environmental issue. In this respect, the anti-establishment credentials of the M5S might have boosted the distrust towards representative institutions (e.g. national parliament) of pro-environmental voters. Despite the significance of the democratic commitment predictor, the variance explained by the value-based predictors is limited and in all three cases is lower than 5%.

5.4 Full Models

Figure 2 plots the predictors of the full models including ideological, socio-demographic and value-based predictors (see models 4, 8 and 12, Appendix). In all three countries social class, education and the place of residence do not impact the citizens' environmental stances.

In Italy, the full model shows the significance of the gender predictor. This is due to the confounding effect created by the inclusion of the variable same-sex marriages. Still, if we compare the mean environmental position of men and women, the former (*mean*=6.76) are slightly more pro-environment than the latter (*mean*=6.71).

[57] Italy and to a minor extent France: see R. Biorcio, *Green Parties in Southern Europe (Italy, Spain, Portugal, and Greece)*, in *Green Parties in Europe*, New York, 2016, p. 178 ff.; B. Villalba, *From the Greens to Europe Ecology - The Greens. Renaissance or More of the Same?*, in *Green Parties in Europe*, New York, 2016, p. 92 ff.

[58] A potential explanation to this result might be linked to the ownership on the environmental issue recently acquired by the Five Star Movement (M5S, *Movimento 5 Stelle*). In this respect, the mild Euroscepticism of the party could have influenced the pro-environmentalist M5S' supporters.

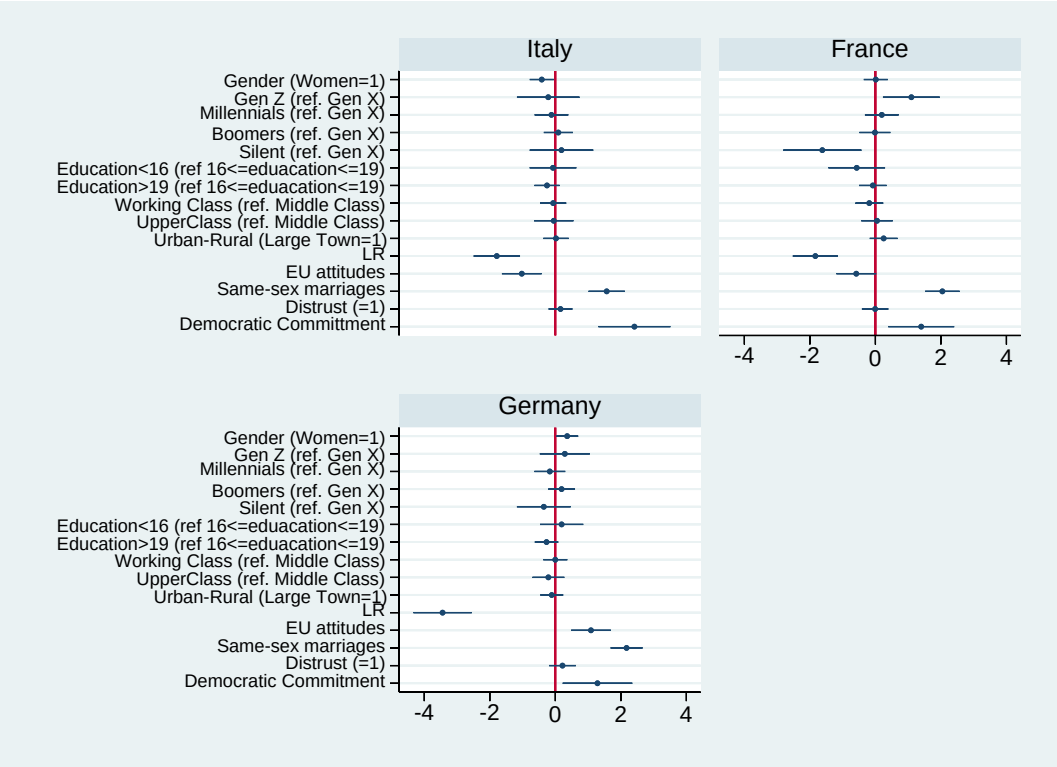
The full model in France shows that Generation Z is neatly more pro-environmentalist than all the other generational groups, controlling for ideological and value-based predictors. On the contrary, Silent Generation is the cohort showing the most anti-environmental positions.

In Germany, Women are significantly more environmentalist than men even when controlling for ideological and value-based predictors. However, generational cohorts lose their significance in the full model.

Expectation 2 results partially supported. On the one hand, several socio-demographic predictors do not play any role in shaping a pro-environmental stance and even the significant ones hold a very low explanatory power. On the other hand, gender – even through a confounding effect – has a limited impact in Italy and Germany. In France, younger citizens appear more pro-environmentalist than older ones.

The ideological predictors in the full models follow the same direction already discussed above and also the magnitude of the impact is comparable. The same applies to the democratic commitment predictors, while the political trust results are not significant in all three full models. These pieces of evidence provide full support to expectations 1 and 3, while expectation 4 is disconfirmed.

Figure 1. Explaining Environmental Preferences



Note: OLS models include ideological, socio-demographic and value-based predictors (see appendix) - Data Source: *EES 2019*.

6. Conclusions

The article provided an updated analysis of the determinants of environmental preferences in Italy, Germany and France. In line with other studies, we confirmed that socio-demographic variables have – at their best – a very weak impact in predicting individual preferences on the environment. Additionally, we also corroborated the thesis linking individual ideological placement to their

environmental preferences. Furthermore, we also found evidence linking individuals' democratic commitment and pro-environmental stances.

The most striking difference distinguishing Italy from the other two European countries here analysed is represented by the relationship existing between EU attitudes and environmental preferences. In this respect, previous studies have assumed the existence of a new division within the European citizenry dividing cosmopolitan versus communitarian citizens. In light of this divide, citizens are expected to hold a certain degree of coherence in their preferences towards EU integration, migration, liberal values and environmental attitudes. Even though this relationship has been found in an aggregate analysis[59], we observed that it can present also significant differences across countries. Precisely, we found that both in Italy and France positive attitudes towards the EU do not predict pro-environmental stances. Furthermore, in Italy, Eurosceptic attitudes are also linked with pro-environmental stances. This finding could be linked to the tradition of the issue-supply on the environment in Italy. Indeed, the Italian green party has been always close to radical left platforms. Furthermore, since 2013 the party that put the highest emphasis towards the environmental issue has been the M5S, characterized in its infancy by mild Eurosceptic positions.

Looking at the salience of the environmental issue across the Italian, French, and German citizenry, we registered a gloomy picture for the future politicization of the environment in Italy. Indeed, Italians show a remarkably low – when compared with French and German citizens – attention towards the environment. Furthermore, after the peak registered during the explosion of FFF strikes in 2019; the salience of the environmental issue collapsed below 5 per cent, returning to the pre-2019 levels. However, in interpreting these data we must acknowledge the extraordinary impact of the COVID-19 pandemic in reshuffling citizen preferences. In this respect, further studies should investigate whether the low salience of the environmental issue is confirmed also looking at post-pandemic periods.

Our study suggests that individual preferences on the environment are still encapsulated within the broader left-right dimension, which can explain individual position much better than the position on new conflict lines. However, what still we do not know is to what extent political parties' preferences are coherent with those of their partisans. In the case of Italy, the lack of attention on the environmental issue at the public level might imply weak pressure for political parties in closing the gap with their voters. Still, in the cases where the environmental issue is nowadays one of the most relevant issues at stake (as in France and Germany), then empirical research in the future should assess the congruence among political parties and voters on the issue, disentangling whether parties rather than individual preferences drive the process of issue politicization.

Abstract

Con il recente European Grean Deal, l'UE ha introdotto l'ambizioso obiettivo di raggiungere la neutralità carbonica entro il 2050. La transizione ecologica implica costi sociali e richiede scelte difficili, che i politici potrebbero non essere interessati a perseguire se divergenti rispetto alle preferenze dei propri elettori. In questo quadro, la ricerca discute le principali ipotesi della letteratura riguardo le variabili principali in grado di influenzare le preferenze individuali sulla questione ambientale, testandole in tre paesi fondatori dell'UE nel 2019, anno in cui si registra il picco di attenzione dell'opinione pubblica sulla tematica ambientale. Utilizzando dati dell'Eurobarometro, l'articolo mostra l'aumento di salienza della tematica ambientale nell'ultimo decennio (2011-2021), comparando Italia, Francia e Germania. Inoltre, utilizzando dati dello European Election Study 2019, l'articolo dimostra come le diverse preferenze sulla tematica ambientale risultino meglio spiegate dalla divisione ideologica destra-sinistra, piuttosto che dall'emersione di nuovi cleavage.

Parole chiave: atteggiamenti ambientali, opinione pubblica, ideologia politica

[59] S. Weko, *Communitarians, Cosmopolitans, and Climate Change*, cit.

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*The recent European Green Deal formulated an ambitious plan to transform the EU into a carbon-neutral space by 2050. Still, the ecological transition requires hard strategic choices, that politicians might not be interested to pursue depending on their voters hold-*different *preferences as to environmental protection. Against this backdrop, the article tests the main expectations of the literature on the drivers of the environmental issue in three EU founding countries in 2019, a year of unprecedented salience of the environmental issue. Drawing from Eurobarometer data, the paper shows how much the attention on the environment is increased over the last decade (2011-2021), by comparing Italy, France, and Germany. Furthermore, the article explores, by employing 2019 European Election Study data, the article demonstrates how the current divisions in environmental preferences can be better explained by the ideological divisions on the classic left-right dimension, rather than the communitarian VS cosmopolitan divide.*

Keywords: environmental attitudes, public opinion, political ideology