

# The Green Gender Gap: Environmental attitudes and pro-environmental vote choice across Europe

Ingvild Zinober 

European University Institute, Italy

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## ABSTRACT

Does gender matter for how we engage with green political ideas? Using more than twenty years of data across 36 European countries, this paper identifies a robust and persistent empirical regularity: women consistently express greater concern about climate and environmental issues than men. I refer to this empirical regularity as the Green Gender Gap. The gap is widespread across Europe and cannot be explained by gender differences in education, occupation, residential location, risk aversion, or left–right political ideology. The paper further examines whether this attitudinal gender gap translates into political behaviour. Looking at vote choice, I find that men in Northern and Western Europe are less likely to vote for green parties and less likely to vote for parties with a pro-environmental political agenda. However, in Southern and Central/Eastern Europe, there is no clear voting gap, despite women holding greener views than men. This suggests that the political outcomes of the Green Gender Gap are shaped by country-specific contexts, such as party-system characteristics, issue salience, and the availability of credible green political alternatives. In short, the Green Gender Gap is robust, widespread, and has real-world political consequences.

## 1. Introduction

Are women greener than men? Across a range of academic disciplines and political contexts, research has consistently observed a systematic gender difference in environmental concern, climate change worry, and eco-friendly behaviour. Research mainly conducted in Western Europe and North America has found that men are less concerned about environmental protection (Blocker and Douglas, 1997; Bord and O'Connor, 1997; Torgler et al., 2008; Echavarrén, 2023; Langsæther and Knutsen, 2024) and worry less about climate change (McCright and Xiao, 2014; McCright et al., 2016; Poortinga et al., 2019; Bush and Clayton, 2023) compared to women. There are also findings suggesting that men are less willing to engage in eco-friendly behaviour (Hunter et al., 2004; Brough et al., 2016; Kennedy and Kmec, 2018; Casado-Díaz et al., 2020) and have a greater carbon footprint than women (Pearse, 2017). Yet despite the accumulation of evidence, we still lack a clear theoretical explanation for this pattern, and we know comparatively little about its scope and political consequences beyond Western contexts.

This paper draws attention to an empirical regularity that has remained strikingly stable over time, transcends ideological and socio-economic cleavages, and still lacks a clear theoretical explanation: the

Green Gender Gap. Using more than twenty years of data from the European Social Survey (ESS), covering 36 countries, I show that women across Europe are more concerned about the environment, worry more about climate change, feel a stronger personal responsibility to mitigate it, and express greater support for climate-mitigation policies. This paper clearly establishes the existence of a systematic empirical regularity across multiple green political issues. The Green Gender Gap is not merely a matter of women being more concerned about specific health risks or local environmental conditions. I show that, across diverse measures and contexts, over time, women repeatedly “outgreen” men.

A central empirical contribution of this study is the inclusion of Southern and Central/Eastern Europe, two regions that have received relatively little attention in research on gender differences in climate and environmental attitudes. This study shows that the Green Gender Gap is not a phenomenon confined to Western Europe and North America. The pattern is clearly visible in Southern Europe, where average levels of economic development have historically been lower than in Northern and Western Europe and where post-materialist issues, such as environmentalism, are often assumed to have weaker salience (Inglehart and Welzel, 2005). I also find a consistent Green Gender Gap in post-communist countries in Central/Eastern Europe, contexts marked by later democratisation and distinct historical trajectories in

E-mail address: [Ingvild.zinober@eui.eu](mailto:Ingvild.zinober@eui.eu).

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party system development. The inclusion of these regions expands our understanding of the Green Gender Gap in two important ways. First, it demonstrates that the empirical regularity, where women express more concern about climate change and environmental degradation is not an isolated phenomenon limited to Western Europe or North America. Second, the scope of the findings suggests that gendered patterns of environmental concern are emerging across diverse political and economic contexts within Europe. This finding raises important questions about how the green gender gap may shape green political behaviour globally.

This paper also explores the political consequences of the Green Gender Gap. Prior research has found that women are generally more supportive of green parties in Western democracies (Knutsen, 2001; Dolezal, 2010; Schumacher, 2014; Knutsen and Langsæther, 2018; Langsæther, 2023). Men are also less likely to vote for parties with a pro-environmental platform compared to women (Shorrock, 2021). Building on this literature, I expand the analysis both temporally and geographically, examining gender differences in green political behaviour across a wide range of European contexts over a 20-year period.

I find clear and consistent evidence of a Green Gender Gap in political behaviour. Men are less likely to vote for green parties and generally less supportive of parties with pro-environmental platforms. However, the behavioural gap is not evenly distributed across Europe. Despite women showing stronger environmental concern in every region, the extent to which this translates into voting behaviour varies significantly. The political expression of the Green Gender Gap is strongest in Northern and Western Europe, where green parties are electorally successful. In these regions, women's environmental commitments find clear political outlets, and the gender gap in attitudes materialises into actual vote choice. By contrast, in Southern Europe, women are more likely to vote for parties within the green party family, but not necessarily for parties with strong environmental platforms. In Central/Eastern Europe, women express greater climate and environmental concern than men, but are not more likely to vote for green parties or parties with a pro-environmental platform. These regional differences suggest that voter preferences alone are not enough; the presence, credibility, and visibility of political alternatives are crucial for gendered preferences to manifest electorally.

A key contribution of this study is its regional analysis of both environmental attitudes and political behaviour, which highlights the crucial role of the supply side in driving a gender gap in political behaviour, in this case, the Green Gender Gap in voting. Specifically, the findings show that women's stronger environmental preferences are more likely to translate into political behaviour, such as voting for green parties, when institutional and party-system conditions are favourable. In contexts where green parties are visible, organised, electorally viable, and perceived as credible political alternatives, the attitudinal gender gap is more likely to become a behavioural one. However, in regions where green party options are absent, fragmented, or lack legitimacy, the gap remains largely confined to attitudes.

Lastly, this paper also contributes to the literature by testing whether the Green Gender Gap can be explained by gender differences in variables commonly associated with support for green ideology, such as education, occupation, locality, risk aversion, and left-right ideology. I find that these variables do not explain the Green Gender Gap, either in attitudes or in vote choice. Women's greater support for green politics is not simply a result of having higher levels of education, working in interpersonal professions, living in urban areas, being more risk-averse, or leaning further to the political left than men. The lack of explanation for the Green Gender Gap raises a crucial question in the field of political science: If women's stronger environmental concern and political engagement cannot be accounted for by standard structural explanations, what mechanisms are we missing? One possibility is that the symbolic associations between environmentalism and femininity (Brough et al., 2016) have made green ideologies more accessible and socially acceptable for women and, conversely, less so for men. If we are

to understand the political aspects and consequences of the Green Gender Gap, it is vital to investigate the cultural and social mechanisms that hinder men's engagement with green ideologies. My wish is that this paper paves the way for research that better explains how gender shapes the adoption of green views and engagement with green politics.

## 2. The Green Gender Gap

The first findings suggesting the existence of a Green Gender Gap in the US were documented already in the 1970s (Davidson and Freudenburg, 1996; McCright and Xiao, 2014). Using data collected in 1976, McStay and Dunlap (1983) found that American women, compared to men, were more concerned about pollution control and resource conservation, more positive towards environmental regulation and more supportive of public spending on environmental measures. In another early study, Blocker and Douglas (1997) found that women were more likely to have a "green" lifestyle, believe that humans harmed nature, fear the effects of pollution, express a belief in animals' rights, and have a greater belief in the sacredness of nature. Mohai (1997) also found that women were, on average, more concerned with global environmental issues like acid rain and the depletion of the ozone layer. There are also studies finding that American women were more negative towards the development of nuclear power (Brody, 1984; Solomon et al., 1989) and evaluated the public health risk of nuclear power, pollution and other environmental conditions as more severe than men (Flynn et al., 1994). The gender gap in environmental concerns found in these earlier studies from the US has also been confirmed in later studies from the country (Xiao and McCright, 2015).

Similar research has also been conducted in other Western countries, pointing to the same empirical pattern. Milfont and Sibley (2016) found that Australian women think that taking care of nature and the environment is more important than Australian men do. Torgler et al. (2008) also show that European women are more willing to suffer personal costs, give up income and raise taxes to prevent pollution. Langsæther and Knutsen (2024) found that women were more concerned about the environment in 11 of the 14 Western European countries in their study. Additionally, there is an older study from the Netherlands showing that women find the idea of living in an area with polluted soil or close to a storage site for radioactive waste more unacceptable and threatening compared to men (Gutteling and Wiegman, 1993).

The second empirical regularity that has been found in previous research is a gender gap in climate change concern, where men express less concern about the consequences of climate change than women. McCright (2010) finds that American women worry more about global warming, experience a greater perceived threat, and believe that global warming is more severe than American men. Davidson and Haan (2012) find the same pattern when asking individuals from Alberta in Canada, and that women express more awareness of and are more concerned about the impact of climate change. In their study of the European context, Poortinga et al. (2019) found some of the same results as in America. Overall, men were less concerned about climate change and perceived the impact of climate change to be less harmful than women. Researchers also find a gender gap in climate change denial, where men are more likely to believe that the climate is not changing or is a result of natural processes. (McCright and Dunlap, 2011; Krange et al., 2019). Cross-national studies have also found a global gender gap in climate change concerns (Knight, 2019). However, the size of the gender gap has been found to positively correlate with GDP (Bush and Clayton, 2023; Knight and Givens, 2020).

More than five decades of research, predominantly conducted in Western contexts, document consistent gender differences in views on climate and environmental issues. However, there is considerably less agreement on why these differences exist. The literature points to several plausible mechanisms underpinning the Green Gender Gap, which can broadly be grouped into structural, psychological, and ideological explanations. Rather than proposing a new theoretical account,

this paper builds on these perspectives by systematically assessing whether commonly cited explanations can account for the existence and persistence of the Green Gender Gap across Europe. The following section outlines these mechanisms.

In their influential book *The Rising Tide*, Inglehart and Norris (2003) argue that the shift from materialist to post-materialist values has affected women's political attitudes more profoundly than men's, making women more likely to prioritise "new" political issues such as environmental protection. According to their analysis, this gendered impact of post-materialist values is partly due to rising levels of educational attainment and labour force participation among women. I therefore test whether gender differences in key social-structural factors, often used to explain support for green politics, can account for the Green Gender Gap.

Multiple studies have found that higher education predicts support for green ideology. Engel and Pötschke, 1998 found that individuals with higher education were more willing to accept higher prices, higher taxes, cuts in their standard of living, and less driving for the sake of the environment. Europeans with higher education are also more likely to believe that protecting the environment is important and that environmental problems directly affect their lives (Eurobarometer, 2014). People with a university degree are also more likely to vote for a green party (Dolezal, 2010; Schumacher, 2014; Langsæther, 2023). Many European countries have a growing educational gap between women and men, and especially among younger cohorts; women are more likely to enrol in and pursue a university degree (Stoet and Geary, 2020). Therefore, the growing educational gap could be one of the reasons behind the Green Gender Gap. Furthermore, when there are more women than men in higher education, it might create a gender difference in exposure to progressive political ideas and green ideology, which often happens in many educational institutions (Stubager, 2013).

Another reason women are shifting towards more post-materialist values might be because of gender differences in occupation. Kitschelt (1994) argues that work experiences greatly affect whether we adopt an authoritarian or more libertarian worldview. A libertarian worldview or post-materialist values are again linked to a progressive stand on climate and environmental issues (Inglehart, 1977; Hooghe et al., 2002; Flanagan and Lee, 2003; Stensrud, 2020). The first way in which occupation affects our worldview is through the nature of the work process. Individuals engaged in jobs that offer a high degree of control over the workday and involve frequent collaboration with colleagues tend to develop more libertarian attitudes. On the other hand, we have individuals who do jobs with a more hierarchical organisation of work in which people follow instructions and have less autonomy over and influence on their workday. People in this type of job then develop more authoritarian preferences. The second way work experience affects our political preferences is through the nature of our tasks at work. Those who work with people, have face-to-face interactions and do tasks that focus on people's wishes and needs develop more libertarian preferences. This is also true for individuals who do not work with people directly but with cultural symbols like art and communication. On the other hand, we have jobs where people are treated like standard cases. For example, where customers are handled as cases, or where tasks revolve around documents or objects. Individuals doing these tasks develop more authoritarian views (Kitschelt, 1994). In this way, the nature of our work might affect whether we adopt green political ideas and support green parties.

Some empirical findings support this argument. In their work on class voting in Europe, Oesch (2008, 2012) found that social-cultural professionals like teachers and doctors were over-represented among the voters of green parties and other parties of the new left, which typically are progressive regarding climate and environmental policies. Often, there are more women than men in jobs with an interpersonal work logic. On the other hand, men are overrepresented in jobs that follow a more technical logic, like, for example, manufacturing. Additionally, the increasing number of women attaining higher education

may result in more women occupying positions that offer greater autonomy and involve collaboration with colleagues, rather than working within hierarchical systems that require following instructions. Because of the gender division in many occupations, work could mediate the effect between gender and the Green Gender Gap.

The last societal structure that could contribute to the Green Gender Gap is the urban-rural gap between women and men. Most European countries have a surplus of men in rural areas because women are more likely to migrate from rural to urban areas (Karpestam and Håkansson, 2021). One of the reasons why women move to cities might be because more women pursue higher education and careers in social-cultural professions with more jobs in the big cities (Johansson, 2016). At the same time, correlations have been found between urban living and adopting green ideas. Those who live in bigger cities are more likely to vote for green parties (Dolezal, 2010), are more concerned about the environment (Jones and Dunlap, 1992) and are more supportive of climate change policies (Arndt et al., 2022). The reason why urban residents hold greener views might be that rural households generally have a higher energy consumption. Increasing energy costs and green taxes will, therefore, hit rural households harder (Arndt et al., 2022). For example, a fuel tax will affect rural households more because they depend on their cars and lack alternative transportation methods (Spiller et al., 2017). Secondly, green social movements and parties have, since the 1970s and 1980s, traditionally had a stronghold in the big cities (Dolezal, 2010). Therefore, people born in or moved to urban areas may have a greater chance of being exposed to a libertarian worldview and progressive political ideas, like climate and environmental issues.

The mechanisms discussed so far all focus on structural differences between women and men. However, early life socialisation processes might also give women and men different social and psychological traits that affect their adoption of green political attitudes (Xiao and McCright, 2014). One socialisation process that has often been discussed in the literature is that women are more risk-averse than men and might be more concerned about environmental risks (Davidson and Freudenburg, 1996). Using data from the US, Bord and O'Connor (1997) found that women were more worried about the consequences of global warming and the risk of hazardous chemical waste sites. They also found that health-risk concerns mediated the relationship between gender and worry about climate change and chemical waste. Based on the results, the authors concluded that the gender gap in environmentalism results from gender differences in perceived vulnerability to risk.

The last mechanism that will be tested in this paper is whether gender differences in political ideology can explain the Green Gender Gap. A vast body of literature has established that since the 80s, women have become more left-leaning in both party choice and political attitudes (Campbell, 2016; Dassonneville, 2021). At the same time, left-leaning individuals are more concerned with climate change than persons on the right side of the political spectrum (Gregersen et al., 2020). One challenge with testing this mechanism is that we do not know the direction of the effect. Women may be greener because they are more left-leaning, as environmental protection is more strongly emphasised on the political left. At the same time, those who are more concerned about environmental issues may also become more left-leaning over time because these issues are adopted by parties on the left. The relationship between the variables might therefore be endogenous, and the analysis cannot establish causality. I include this variable to test whether the Green Gender Gap can be explained by gender differences in political ideology. However, if this is the case, the association may reflect women being more left-leaning, women becoming more left-leaning because of their greater environmental concern, or a combination of both.

In sum, previous research consistently shows gender differences in environmental and climate related attitudes, but there is less agreement on why these differences exist. Building on this literature, I formulate the following hypotheses and test whether a Green Gender Gap can be

observed across Europe, and whether commonly cited structural, psychological, and ideological factors can account for it.

**Hypothesis 1.** European women are more concerned about environmental protection and climate change than men.

**Hypothesis 2.1.** The gender gap in climate and environmental attitudes and in support for green and pro-environmental parties is substantially reduced when accounting for gender differences in **education**.

**Hypothesis 2.2.** The gender gap in climate and environmental attitudes and in support for green and pro-environmental parties is substantially reduced when accounting for gender differences in **occupational structure**.

**Hypothesis 2.3.** The gender gap in climate and environmental attitudes and in support for green and pro-environmental parties is substantially reduced when accounting for gender differences in **residential location**.

**Hypothesis 2.4.** The gender gap in climate and environmental attitudes and in support for green and pro-environmental parties is substantially reduced when accounting for gender differences in **risk aversion**.

**Hypothesis 2.5.** The gender gap in climate and environmental attitudes and in support for green and pro-environmental parties is substantially reduced when accounting for gender differences in **left-right political ideology**.

Moving on to political behaviour, multiple studies have found a gender gap in support for green parties in Western Europe. One of the earliest studies finding a voting gap was focused on Scandinavian countries. At the time, only Sweden had a green party of any considerable size, and Knutsen (2001) found that Swedish women were more often voting for the Green Party than Swedish men. However, the gender gap in green voting was later found in more European countries. Dolezal (2010) found that women are overrepresented among green voters in 10 of the 12 Western European countries they were looking at. Knutsen and Langsæther (2018) found that Northern Europe had the greatest gender divide in support for green parties. They also found a gap in central Europe but not in southern Europe, Britain, or Ireland. A newer study of 15 Western European green parties (Langsæther, 2023) finds that women are overrepresented among the voters for all of these parties except for Alternative (The Alternative) in Denmark and Europe Écologie – Les Verts (Europe Ecology – the Greens) in France. Lastly, we have indications that British women might also be more supportive of the green parties under the right institutional circumstances. In the 2019 European Parliament election, where members are elected using a party-list proportional representation system, more women than men voted for the Green Party. However, in the British parliamentary election the same year, where a first-past-the-post system was used, there were no gender differences in support for the Greens (Campbell and Shorrocks, 2021).

Furthermore, there is research indicating that women are not only more supportive of green parties specifically, but also of parties that promote pro-environmental policies more generally. In their study of Western democracies, Shorrocks (2021) finds that parties which adopt pro-environmental policy positions tend to attract more women than men. This effect remains statistically significant even after controlling for other policy positions and party characteristics, such as party stigma, strength of party support, and the gender of the party leader.

The second objective of this paper is to explore the extent to which the Green Gender Gap also extends to support for green parties and parties with an environmental political agenda. Previous research has found a clear gender gap on the demand side for green policies. However, when examining vote choice, we must also take into account the supply side of the relationship. Voters' decisions are not only shaped by

preferences but also by the ideological alternative presented by the parties (Adams et al., 2005). Party systems and party competition are not uniform across Europe, and there are specific regional patterns that raise questions as to whether the same empirical regularities found in Western Europe also hold in Southern and Eastern Europe.

Whether green voters choose to support a pro-environmental party depends not only on their attitudes but also on whether they perceive these parties as viable electoral options. This perception is shaped by factors such as party visibility, strategic positioning, and coalition signals within the broader political landscape (Spoon, 2011). Additionally, the extent to which a pro-environmental party is able to establish itself as a viable option also depends on the party-system opportunity structures (H. P. Kitschelt, 1986, 1988) and the ideological cleavages that define the issue space (Kriesi et al., 2008). Consequently, in contexts where party competition limits the visibility or perceived relevance of green parties, even strong pro-environmental attitudes among voters may not translate into electoral support for parties with environmental agendas.

Empirical evidence shows that green party support is unevenly distributed across Europe. Green parties have been most successful in Northern and Western Europe, where environmental issues are salient and post-materialist values are widespread (Grant and Tilley, 2019; Pearson and Rüdiger, 2020). In these contexts, green parties have established themselves as stable, standalone parties with a left-libertarian ideological profile emphasising ecology, equality, and participatory democracy (De La Cerda and Gunderson, 2024). These favourable structural and cultural conditions also create more visible and credible green electoral options for voters, allowing attitudinal gender differences in environmental concern to translate more directly into gendered voting patterns.

In contrast, Southern and Central/Eastern Europe present much less fertile ground for green parties. In Southern Europe, green vote shares remain comparatively low, and green parties often rely on alliances with broader left or movement-based coalitions, reflecting party-system constraints and lower environmental salience (Lisi, 2022; Biancalana et al., 2023). Ideologically, Southern greens tend to integrate stronger eco-social and anti-austerity dimensions into their programs, especially when participating in alliances such as the Italy's Alleanza Verdi e Sinistra (AVS). This distinguishes Southern green parties somewhat from their more pragmatic Northern counterparts (Improta and Mannoni, 2025). Similarly, in Central and Eastern Europe, green parties have struggled to establish themselves and to secure electoral success. These parties also tend to adopt centrist or even market-friendly orientations, and the political context is dominated by economic and identity-based cleavages rather than post-materialist value conflicts (Kwiatkowska, 2019).

Taken together, these regional patterns indicate that the Green Gender Gap in voting behaviour might not be uniform across Europe. In contexts where environmentalism is politically institutionalised, particularly in Northern and Western Europe, the gap is more likely to manifest. By contrast, in regions where the green political supply is weak or ideologically fragmented, it might not manifest. On this basis, I propose two contrasting hypotheses regarding vote choice, reflecting the possibility that the green gender gap may either persist or diminish depending on the structure of party competition and the broader regional political context.

**Hypothesis 3.1.** Women are more supportive of green political parties and parties with a pro-environmental agenda than men across all regions of Europe.

**Hypothesis 3.2.** Women are more supportive of green political parties and parties with a pro-environmental agenda than men in only Northern and Western Europe.

### 3. Data and estimation

To conduct the analyses in this paper, I use data from the European Social Survey (ESS). The ESS is a biennial cross-national survey, and the first round was conducted in 2002. In total, 36 European countries have participated in at least one survey round, enabling systematic comparison across Europe (see [Appendix A](#) for a full list of countries and rounds). The ESS includes validated measures of environmental attitudes, vote choice, and political ideology, allowing direct examination of the Green Gender Gap and its political consequences. For the environmental attitude variables, the sample ranges from approximately 35,000 to 340,000 respondents. The sample also includes approximately 160,000 respondents for analyses of vote choice and 190,000 respondents for analyses of support for pro-environmental parties.

The ESS is well-suited to this study because it covers multiple countries and rounds, allowing assessment of whether the Green Gender Gap is observed across European regions and over time. The large sample size is also important for detecting small but persistent gender differences in political behaviour. Because we are comparing two groups that each make up about half the population, even small gender gaps in party choice can have substantial consequences for the overall electoral outcome ([Campbell, 2016](#)). A large number of respondents is therefore needed to detect small but persistent gaps, especially when it comes to green parties, which historically have had lower levels of voter support. Finally, the ESS includes relevant variables to test several of the mechanisms proposed in previous research to explain the gap.

To test hypothesis H1, which concerns gender differences in attitudes towards climate and environmental issues, I use three survey items from the European Social Survey. The first survey item was included in all 11 rounds of the survey and measured the respondents' views on the importance of caring for nature and the environment. The survey question was intentionally designed to measure the personal value of universalism ([Schwartz, 2007](#)). However, it has also been used to investigate gender differences in environmentalism ([Echavarren, 2023](#)). The **environmentalist** variable is operationalised as follows: The respondents are presented with the following description: "This person strongly believes that people should care for nature. Looking after the environment is important to them." The respondents were asked to rate on a scale from 1 (not like me at all) to 6 (very much like me) how much they identified with this person.

The second item was included in rounds 8 (2016), 10 (2020), and 11 (2022) of the ESS. It measures **climate change concern** and is operationalised as follows: How worried are you about climate change? 1) Not at all worried, 2) Not very worried, 3) Somewhat worried, 4) Very worried, 5) Extremely worried. The last survey item asks the respondents whether they feel **personally responsible** for attempting to reduce climate change. It was also included in rounds 8, 10, and 11. It measures someone's willingness to take action or give up personal comfort to reduce climate change. The variable is operationalised as follows: Feeling personal responsibility: To what extent do you feel a personal responsibility to attempt to reduce climate change? Scale from 0 (not at all) to 10 (a great deal).

Lastly, I am also conducting a fourth test of hypothesis H1, looking at gender gaps in support for climate mitigation policies. Round 8 of the ESS includes a battery of questions measuring attitudes towards climate change. Using items from this round, I construct a **climate policy index** measuring support for climate mitigation policies. The index is an average of three survey items measuring support for increasing taxes on fossil fuels, subsidies for renewable energy and banning the sale of the least energy-efficient household appliances to reduce climate change. All items are measured on a 5-point scale, and the standardised Cronbach's alpha score is 0.5. In [Table A.18 in appendix, I](#) also present a separate analysis of each of the items in the index.

To test hypotheses H3.1 and H3.2, which concern the translation of the Green Gender Gap into political behaviour, I examine gender differences in support for green parties and for parties with a

pro-environmental political agenda across Europe. I start by examining the gender gap in support for **green parties**. In the analysis, I include parties that belong to the green party family ([Langsæther, 2023](#)) (see [Table E.3](#) in the appendix for a list of all parties included in the analysis). Only countries with one or more green parties at the time of data collection are included in the analysis. I also exclude observations where the green party is part of an electoral coalition, and support for the party cannot be disentangled from support for other parties.

As a final test of hypotheses H3.1 and H3.2, this analysis examines whether women are more likely than men to support parties with a **green political agenda or platform**. To do this, I use data from the manifesto project ([Volkens et al., 2022](#)), which analyses party manifestos to measure party positions on a wide range of political issues. Within this dataset, the variable *per501* captures a party's emphasis on environmental protection and related issues. Specifically, *per501* measures the proportion of quasi-sentences in a party's manifesto devoted to statements advocating the protection of the environment, the fight against pollution, and efforts to combat climate change. It reflects the degree of salience a party assigns to environmental concerns rather than its precise policy stance. To determine a party's position on green issues, I use the manifesto observation closest in time to the ESS data collection. However, the observation must come from the same year or earlier than the ESS round, as the Manifesto Project codes the most recent manifesto published before a national election, and the ESS asks respondents which party they voted for in the last election. For example, if the Manifesto Project contains information on a party's position from 2001 to 2005, I merge the 2001 data with ESS rounds 1 (2002) and 2 (2004), and the 2005 data with round 3 (2006). The *per501* score thus provides a measure of "how green" the party that each respondent voted for in the last national election was.

The data merge is not fully complete, as some parties appear in the ESS but not in the Manifesto Project data, and vice versa. This problem is mainly concentrated among smaller parties and parties that existed for only a few election cycles. It is particularly pronounced in more volatile party systems with rapid party turnover, a high number of minor parties, and frequent use of electoral coalitions. As a result, the green position measure is less precise for Eastern and Southern European countries than for Northern and Western European countries, where party systems tend to be more stable and longstanding. This lower level of precision introduces greater measurement error in the green position variable. This may weaken the estimated relationships and reduce the ability to detect associations that may in fact exist. The results for these regions should therefore be interpreted with greater caution.

In the analysis, I also control for the parties' general left-right position, using the left-right position of the party provided by the Manifesto Project. This is important because green parties are, on average, more left-leaning on economic and redistributive issues, emphasising state intervention, welfare expansion, and social protection ([H. P. Kitschelt, 1988](#); [Röth and Schwander, 2020](#)). At the same time, previous research has shown that women tend to place themselves somewhat further to the left than men in many European countries, particularly on questions of redistribution and welfare ([Giger, 2009](#); [Grasso and Shorrocks, 2025](#)). In addition to the economic left-right dimension, I also account for support for equality (including gender equality) and opposition to traditional morality. Green parties typically promote social equality, minority rights, and tend to reject traditionalist or authoritarian moral beliefs and instead emphasise liberalism, multicultural tolerance, and individual autonomy ([Hooghe et al., 2002](#); [Dassonneville et al., 2024](#)). Controlling for the left-right positions, support for equality and opposition to traditional morality allows me to test whether women's greater likelihood of supporting pro-environmentally oriented parties is truly driven by their green profile and not by other political stances also adopted by pro-environmental parties.

To test hypotheses H2.1–H2.5, I introduce education, occupation, locality, risk aversion, and left-right political ideology sequentially into the models to assess whether these factors can explain the Green Gender

Gap. **Gender**, the main independent variable, is operationalised as a binary indicator, with women coded as 1 and men as 0. **Age** is included as the only control variable, as women are, on average, more likely to live longer than men. Education, the first mediating variable, is also operationalised as a binary indicator: respondents who have completed any form of academic higher education are coded as 1, and those who have not as 0. **Occupation** is operationalised using [Oesch's \(2006\)](#) occupational class schema, which classifies respondents based on work logic and skill level. **Locality** is measured by a categorical variable where respondents best describe their area. 1) A big city, 2) suburbs or outskirts of a big city, 3) Town or small city, 4) Country village, 5) Farm or home in the countryside. **Risk aversion** is measured similarly to environmentalism using a survey item originally designed to measure personal values ([Schwartz, 2007](#)). The respondents are presented with this description: "This person looks for adventures and likes to take risks. They want an exciting life." The respondents were asked to rate on a scale from 1 (not like me at all) to 6 (very much like me) how much they identified with this person. Lastly, **left-right political ideology** is measured by the respondents assessing their own political conviction and placing themselves on a 0 (left) to 10 (right) point scale. I estimate the models using OLS for continuous dependent variables and logistic regression for binary outcomes. The sample is held constant across models, so differences between models reflect the inclusion of additional variables and not changes in the sample. The general model specification is as follows:

$$Y_{icr} = \beta_1 G_{icr} + \beta_2 A_{icr} + \beta_3 M_{icr} + \beta_4 C_{ri} + \beta_5 R_{ci} + e_{icr}$$

Here, Y represents the value of the dependent variable for individual i in country c in round r. G denotes gender, and A represents age, which is the only control variable. M captures the different mediating variables included in the models. C refers to country fixed effects, R to round fixed effects, and e denotes the error term, clustered at the country level.

#### 4. Results

In [Table 1](#), I present the results of all the gender effects across the four European regions. A gender gap in environmentalism is observed in each region, indicating that European women are generally more

concerned about the environment compared to men. Among the 36 countries included in the analysis, 27 show a statistically significant gender gap in environmentalism (see [Table A.2 in appendix](#)). When it comes to worrying about climate change, there is also a significant gender gap in all regions. Out of the 30 countries participating in ESS rounds 8, 10, and 11, 25 countries have a significant gender gap (see [Table A.7 in appendix](#)). However, when examining the feelings of personal responsibility to reduce climate change, the gender effect is significant in all regions except Southern Europe. Of the five Southern European countries included in the study, Greece and Spain exhibit a significant gender.

gap on this variable. In total, the gender effect is statistically significant in 21 out of 30 countries (see [Table A.8 in appendix](#)). When it comes to support for climate mitigation policies, as measured by the climate index, women are more supportive of these policies in all regions except in Southern Europe. There is a significant gender gap in 11 of the 21 countries that participated in round 8 (2016) of the ESS (see [Table A.9 in appendix](#)).

Overall, there are no instances of a reversed gender gap on any of the measures in any of the countries included in the analysis. Women are either greener than men, or there is no significant difference between the genders. The findings presented in [Table 1](#) suggest the presence of a Green Gender Gap across Europe, including in Southern and Central/Eastern Europe. Overall, these findings provide strong support for hypothesis H1, showing a consistent Green Gender Gap in views on climate and environmental issues.

Out of the 25 countries that had at least one green party represented in the parliament during the 20-year period, 12 have a gender gap where women are more likely than men to vote for a green party. In Northern Europe, the effect of gender on votes for a green party is greater, with an average marginal effect of 0.047, meaning that women are, on average, 4.7 percentage points more likely than men to vote for a green party. This is a great difference considering the green parties in Northern Europe typically only achieve single-digit vote shares. In Western Europe, the average marginal effect is 0.027, with the gap being significant in all countries except Ireland and Luxembourg.

Shifting our focus to Southern Europe, the average marginal effect is 0.015, indicating that women in this region are 1.5 percentage points

**Table 1**  
The effect of gender disaggregated by region.

	(1)	(2)	(3)	(4)	(5)	(6)
	Environmentalism	Climate Change Concern	Personal Responsibility	Climate Index	Voted Green Party	Green Manifesto
<b>Western Europe</b>	0.09*** (0.02)	0.17*** (0.02)	0.43*** (0.05)	0.05** (0.02)	0.30*** (0.03)	0.27*** (0.06)
Standardised Coefficient	0.04	0.09	0.09	0.03	0.15	0.04
Number of Countries	9	8	8	8	9	9
Observations	186,033	60,258	59,850	18,838	140,264	99,042
<b>Central/Eastern Europe</b>	0.11*** (0.01)	0.18*** (0.01)	0.41*** (0.04)	0.08*** (0.03)	0.06 (0.12)	-0.02 (0.03)
Standardised Coefficient	0.05	0.10	0.07	0.05	0.03	0.00
Number of Countries	17	13	13	6	6	15
Observations	166,087	44,340	43,474	12,153	27,420	76,231
<b>Southern Europe</b>	0.06*** (0.01)	0.09*** (0.01)	0.21* (0.12)	0.01 (0.02)	0.90*** (0.15)	-0.14 (0.13)
Standardised Coefficient	0.04	0.08	0.08	0.03	0.16	0.02
Number of Countries	5	5	5	3	5	5
Observations	70,297	25,083	24,691	5172	11,659	37,381
<b>Northern Europe</b>	0.16*** (0.03)	0.31*** (0.01)	0.80*** (0.04)	0.25*** (0.01)	0.58*** (0.09)	0.73*** (0.14)
Standardised Coefficient	0.04	0.08	0.08	0.03	0.16	0.02
Number of Countries	5	4	4	4	5	5
Observations	69,081	17,034	16,933	5759	46,233	54,674

*Note:* The table reports the unstandardised and standardised regression coefficients based on OLS regression for models 1, 2, 3, 4, and 6 and logistic regression for model 5. All models include fixed effects on countries and rounds, robust standard errors clustered by country in parentheses. The average marginal effect of gender on voting in Western Europe is 0.027, Central/Eastern Europe 0.002, Southern Europe 0.015, and Northern Europe 0.047. The full results are shown in [appendix Tables A.10, A.11, A.12, and A.13](#).

Source: European Social Survey rounds 1–11. \*p < 0.1; \*\*p < 0.05; \*\*\*p < 0.01.

more likely to vote green. However, when disaggregating the results, the gender effect is only significant in Portugal, suggesting that this country might be driving the effect. In Central/Eastern Europe, the Green Gender Gap has not translated into a gap in support for green parties. Among the six countries with a green party between 2002 and 2022, Lithuania is the only one where women are more likely than men to vote for a green party (see Table A.3 in appendix). Now, the last analysis is presented in Table 1. The results show clear regional divides where women are more likely to vote for parties with a green party manifesto in Northern and Western Europe, but not in Southern and Eastern Europe. In Northern Europe, women are more likely to choose a party with a green party manifesto in all five countries in the analysis (see Table A.6 in appendix). The effect still holds when removing respondents voting for a party in the green party family (see Table A.17 in appendix). Women in Western Europe are also more likely to vote for parties with a green political agenda. Again, the effect is still significant after excluding respondents who voted for a green party (see Table A.14 in appendix).

Looking at Southern Europe, there is no overall significant gender effect on support for parties with a green agenda. However, there is one example of a reversed gender gap. In Italy, gender is negatively correlated with support for parties with a green political agenda. This indicates that in the Italian context, men are more likely to vote for parties with a pro-environmental political platform, and the parties more often preferred by men are greener than those more preferred by women. The same finding is also present in Central/Eastern Europe. Overall, there is no significant gender effect when it comes to support for pro-environmental parties, and the effect is negative in Slovenia (see Table A.6 in appendix).

Taken together, these findings do not support hypothesis H3.1, which posits that women are more supportive of green and pro-environmental parties across all regions of Europe. Instead, the results support hypothesis H3.2, showing that the gender gap in support for green and pro-environmental parties is confined to Northern and Western Europe, while no corresponding gender gap emerges in Southern and Central/Eastern Europe.

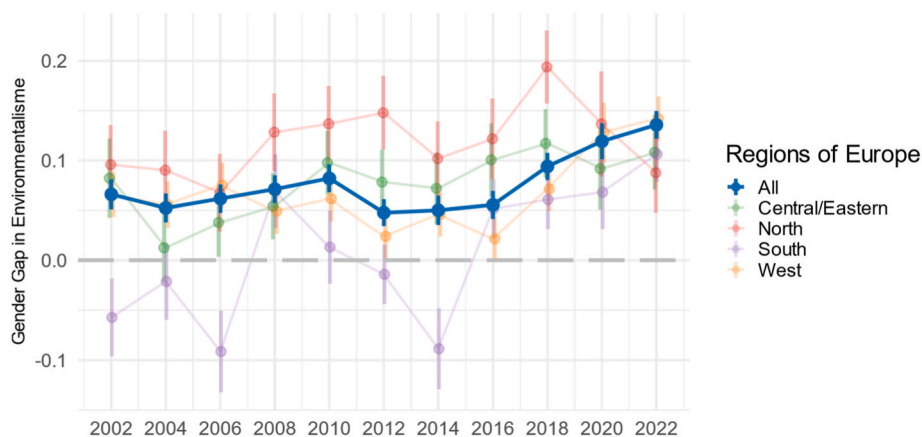
In Figs. 1–3, I plotted the results for the attitudinal variables across 20 years of available data. The gender effects are remarkably stable and show a slight upward trend over time. There are regional differences, with the Green Gender Gap consistently being the most stable in Northern Europe. For environmentalism, which has the longest-running data series, the gap is consistently significant in Northern Europe and, with only a few exceptions, also stable and significant in Central/Eastern and Western Europe. The gap in environmentalism is less stable in Southern Europe, where there are instances of both non-significant and

reversed gaps. However, in the four most recent rounds, women in Southern Europe score higher on environmentalism than men. The gender coefficient for climate change worry is significant in all rounds and regions, except Southern Europe in 2016. While for feelings of personal responsibility to reduce climate change, the gender gap is consistently significant in Northern Europe, and from 2020 onwards, it becomes significant in the other three regions as well.

In Fig. 4, I plotted the gender gap in voting for a green party across the available survey rounds. Compared to the attitudinal variables, the gender gap in green party voting is less stable over time at the regional level. However, at the aggregated level, women in Europe have consistently been more likely to vote for a green party than men over the last 20 years. In contrast, trends over time in support for parties with a pro-environmental political agenda are much less stable than the gap in green party support. Fig. 5 also shows a clear North-West and South-East divide. Since 2016, there appears to be a reversal of the gap in some of the Southern and Eastern countries included in this analysis, where men are more likely than women to support parties with a greener agenda.

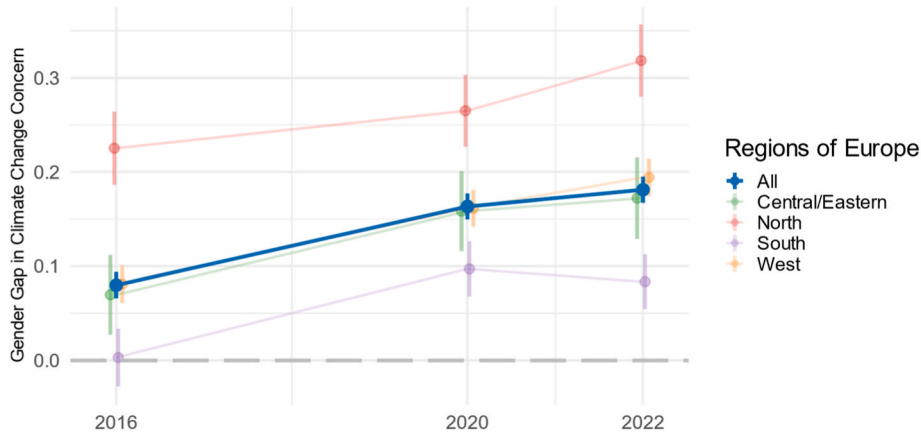
The findings presented above reveal a clear North-West and South-East divide in the extent to which the Green Gender Gap is politically expressed through party choice. While women across Europe generally express stronger environmental concern, this attitudinal gap does not uniformly translate into a behavioural gap in voting. In Northern and Western Europe, gendered environmental attitudes appear to have been politically mobilised: women are not only more likely to vote green, but also more inclined to support parties with a pro-environmental agenda more broadly. In contrast, in Southern and Central/Eastern Europe, the translation of gendered green attitudes into political behaviour is either absent or, in some few cases, reversed.

There are several potential explanations for this pattern. First, the electoral size and relevance of green parties in these regions are crucial factors. As shown in appendix table A.4, the average vote share for green parties in Central/Eastern and Southern Europe remains extremely low, just 2.8% and 1.8% respectively, compared to 9.1% in Western Europe and 10.4% in Northern Europe. In such contexts, voters sympathetic to environmental concerns may not see green parties as viable political options or may not even have a green party to vote for at all. This limits the opportunity for a Green Gender Gap to materialise in electoral behaviour. Additionally, when I estimate models that interact party size with respondent gender to explain support for a green party, the gender gap in support becomes statistically significant once party support reaches approximately 10 to 15 per cent. The analysis is conducted on the full sample and includes country and round fixed effects (see Figures D.31 and D.32 in appendix).

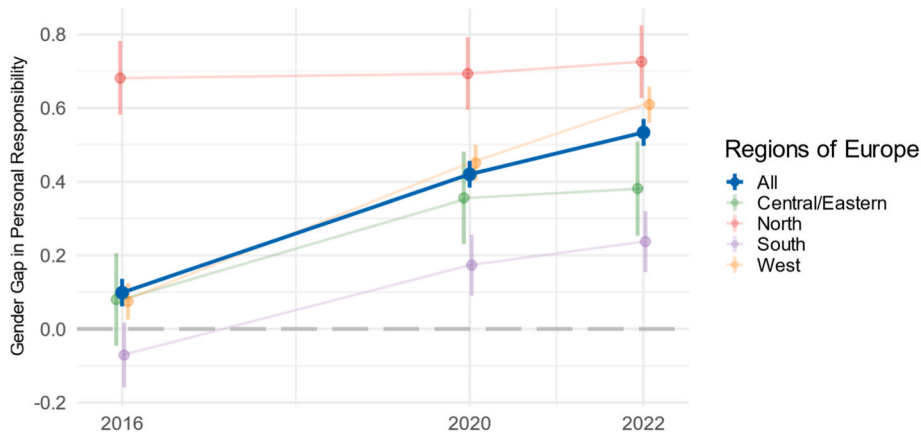


**Fig. 1.** Gender differences in environmentalism. *Note:* Positive values = women are more concerned about the environment. Negative values = men are more concerned about the environment. Estimates based on OLS regression with country and round fixed effects and robust standard errors clustered by country. Western Europe (N = 186,033), Central/Eastern Europe (N = 166,087), Southern Europe (N = 70,297), and Northern Europe (N = 69,081). Countries included in each region are listed in Appendix A.

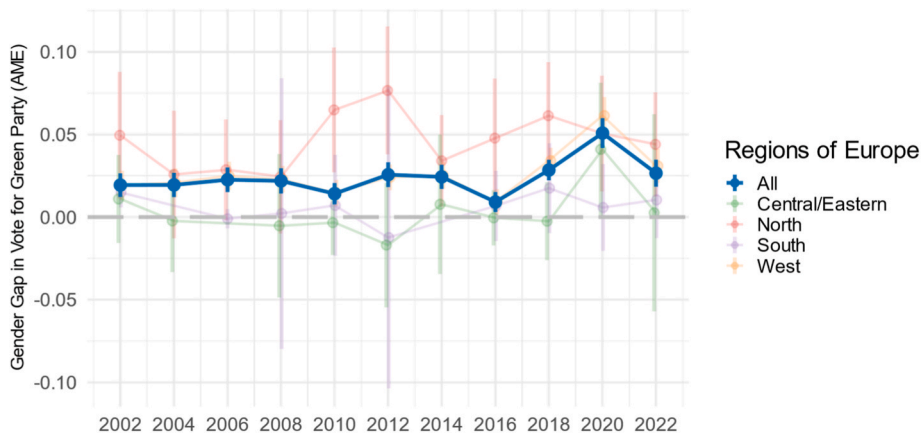
Source: The European Social Survey, rounds 1–11.



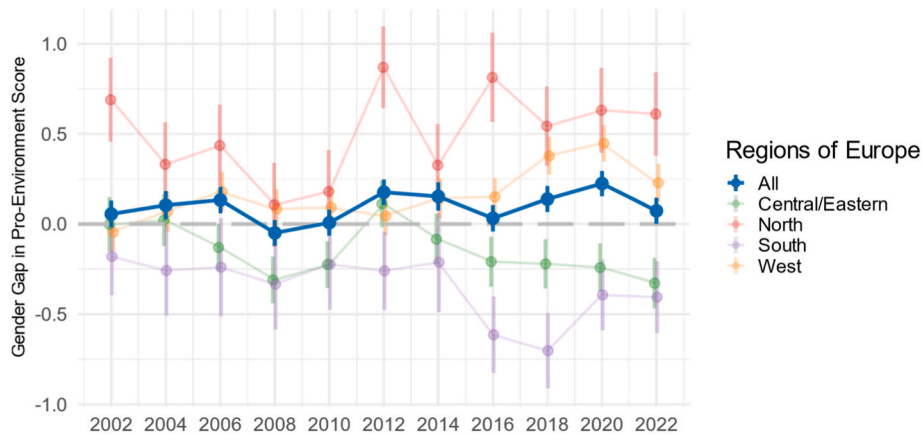
**Fig. 2.** Gender differences in climate change concern. *Note:* Positive values = women are more concerned about climate change. Negative values = men are more concerned about climate change. Estimates based on OLS regression with country and round fixed effects and robust standard errors clustered by country. Western Europe (N = 60,258), Central/Eastern Europe (N = 44,340), Southern Europe (N = 25,083), and Northern Europe (N = 17,034). Countries included in each region are listed in [Appendix A](#).  
*Source:* The European Social Survey, rounds 8, 10, and 11.



**Fig. 3.** Gender differences in personal responsibility to reduce climate change. *Note:* Positive values = women feel more personal responsibility to reduce climate change. Negative values = men feel more personal responsibility to reduce climate change. Estimates based on OLS regression with country and round fixed effects and robust standard errors clustered by country. Western Europe (N = 59,850), Central/Eastern Europe (N = 43,474), Southern Europe (N = 24,691), and Northern Europe (N = 16,933). Countries included in each region are listed in [Appendix A](#).  
*Source:* The European Social Survey, rounds 8, 10, and 11.



**Fig. 4.** Gender differences in voting for a green party. *Note:* Positive values = more women vote for a green party. Negative values = more men vote for a green party. Estimates based on logistic regression with country and round fixed effects and robust standard errors clustered by country. Western Europe (N = 140,264), Central/Eastern Europe (N = 27,420), Southern Europe (N = 11,659), and Northern Europe (N = 46,233). Countries included in each region are listed in [Appendix A](#). (For interpretation of the references to colour in this figure legend, the reader is referred to the Web version of this article.)  
*Source:* The European Social Survey, rounds 1–11.



**Fig. 5.** Gender differences in the pro-environmental score of the party voted for in the last national election. *Note:* Positive values = more women vote for parties with higher pro-environmental scores. Negative values = more men vote for parties with higher pro-environmental scores. Estimates based on OLS regression with country and round fixed effects and robust standard errors clustered by country. Western Europe (N = 99,042), Central/Eastern Europe (N = 76,231), Southern Europe (N = 37,381), and Northern Europe (N = 54,674). Countries included in each region are listed in [Appendix A](#). *Source:* The European Social Survey, rounds 1–11.

Second, the ideological profile of green parties differs across Europe. As shown in [Table A.5 in appendix](#), green parties in Southern Europe include the most pro-environmental rhetoric in their manifestos, followed by those in Northern, Western, and, lastly, Central/Eastern Europe. Furthermore, parties in Central/Eastern Europe tend to occupy a more centrist position on the left–right dimension and are the least critical of economic growth compared to green parties elsewhere in Europe. It is therefore clear that green parties in Central/Eastern Europe have a distinct ideological profile, which may help explain why environmentally concerned women in these regions do not necessarily perceive green parties as politically appealing or ideologically aligned with their broader values and priorities.

However, I find that ideological shifts in a green party's manifesto do not affect support for the party among either women or men (see [Figures D.33 to D.37 in appendix](#)). Changes to party ideology therefore do not appear to mobilise women differently from men. This suggests that differences in the ideological profiles of green parties are unlikely to be driving the North/West–South/East divide. Rather, it is the size and

possibly the salience and professionalisation of green parties that contribute to genderbased mobilisation in the electorate.

Another potential explanation lies in the different dynamics of party competition across European regions. In many Southern and Central/Eastern European countries, party systems remain fragmented, volatile, and dominated by populist or nationalist parties. These contextual conditions may further constrain the expression of gendered green attitudes through voting. Overall, these findings support the interpretation that while the Green Gender Gap is a pan-European phenomenon at the level of attitudes, its behavioural consequences are highly context-dependent. The degree to which environmental concern translates into gendered political action appears to hinge on party system characteristics and the perceived viability and relevance of green or pro-environmental parties.

In the next section, I test whether the gap in green political views and behaviour can be explained by gender differences in structural, psychological, or ideological variables commonly associated with green political support. The results are presented in [Table 2](#), and when it comes

**Table 2**

The effect of gender on the perception of how important it is to take care of nature and the environment, climate change concern and feeling a personal responsibility to reduce climate change, support for climate mitigation policies and the likelihood of voting for a green party.

	(1) Environmentalism		(2) Climate Change Concern		(3) Personal Responsibility		(4) Climate Index		(5) Voted Green Party	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
<b>Women</b>	0.09*** (0.01)	0.09*** (0.01)	0.13*** (0.02)	0.12*** (0.02)	0.27*** (0.05)	0.25*** (0.05)	0.08*** (0.02)	0.06*** (0.01)	0.35*** (0.04)	0.30*** (0.04)
<b>Age</b>		0.01*** (0.01)		−0.01 (0.01)		−0.01** (0.01)		−0.01** (0.01)		−0.02** (0.01)
<b>Higher Education</b>		0.09*** (0.01)		0.10*** (0.01)		0.36*** (0.02)		0.11*** (0.03)		0.41*** (0.02)
<b>Risk Aversion</b>		−0.06*** (0.01)		−0.03*** (0.01)		−0.09*** (0.01)		−0.02*** (0.01)		−0.08*** (0.01)
<b>Left Right Position</b>		−0.03*** (0.004)		−0.05*** (0.01)		−0.07*** (0.01)		−0.04*** (0.01)		−0.29*** (0.02)
Occupation	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
Locality	NO	YES	NO	YES	NO	YES	NO	YES	NO	YES
Observations	335,895	335,895	62,483	62,483	61,932	61,932	34,629	34,629	161,331	161,331
Adjusted R2	0.02	0.06	0.05	0.08	0.10	0.13	0.03	0.07	-	-
Pseudo R2	-	-	-	-	-	-	-	-	0.07	0.15

*Note:* The table reports the regression coefficients based on OLS regression for the continuous variables and logistic regression for the binary variable voted for a green party. All models include fixed effects on countries and rounds. The average marginal effect of gender on voting is 0.024 in model 1 and 0.020 in model 2. The full results are shown in [appendix tables B.1 to B.5](#).

*Source:* European Social Survey rounds 1–11. \*p < 0.1; \*\*p < 0.05; \*\*\*p < 0.01.

to the attitudinal variables, controlling for gender differences in education, occupation, locality, risk aversion, and left–right position has very little effect on the gender coefficient. Women are still more concerned with preserving the environment, more worried about climate change, feel a stronger personal responsibility to reduce climate change, and are more supportive of climate-mitigation policies after including these possible mediators in the model. Overall, gender differences in higher education, occupational class, locality, risk aversion, and ideological left–right position explain little of the Green Gender Gap in attitudes.

But what about the gap in green political behaviour? Women across the sample have, on average, a 2.4 percentage-point higher probability of voting for a green party in Europe. This effect is reduced by 0.4 percentage points, to 2.0, when socio-economic background variables, risk aversion, and left–right position are introduced, suggesting that structural variables play some role, although much of the gap remains unexplained. The effect of gender seems small; however, when the group in question makes up about half the population, the real-world consequences can be big. For many green parties in Europe, a 2.4 percentage-point difference in electoral support can greatly affect their political influence.

The results are similar for the gender gap in support for parties with a pro-environmental agenda. Women's higher likelihood of voting for pro-environmental parties remains statistically significant, but the effect is reduced somewhat when socio-economic background variables, risk aversion, and left–right position are introduced, suggesting that structural variables play some role, although much of the gap remains unexplained. In Model 4 in Table 3, I also test whether the gender effect holds after controlling for parties' positions on other policy dimensions, 1) positivity towards equality, 2) negativity towards traditional morality, and 3) left–right position. The gender effect remains positive and statistically significant, and its size is similar to that observed in Model 2, suggesting that accounting for pro-environmental parties' positions on these additional policy dimensions does not explain much of the remaining gender gap.

Taken together, these findings provide limited support for hypotheses H2.1–H2.5. Controlling for education, occupation, locality, risk aversion, and left–right ideology reduces the estimated gender gap only slightly, suggesting that these factors account for a small part of the

**Table 3**  
The effect of gender on voting for parties with a pro-environmental manifesto.

	Model 1	Model 2	Model 3	Model 4
<b>Women</b>	0.20*** (0.06)	0.16** (0.06)	0.15** (0.06)	0.15** (0.06)
<b>Age</b>		−0.01*** (0.01)	−0.01*** (0.01)	−0.01*** (0.01)
<b>Higher Education</b>		0.26*** (0.05)	0.25*** (0.06)	0.25*** (0.05)
<b>Risk Aversion</b>		−0.02 (0.02)	−0.02 (0.02)	−0.02 (0.02)
<b>Left-Right Position</b>		−0.16*** (0.05)	0.02 (0.07)	0.01 (0.05)
<b>Party Left-Right Position</b>			−0.06*** (0.01)	−0.08*** (0.04)
<b>Party Positive Equality</b>				−0.12 (0.11)
<b>Party Negative Traditional Morality</b>				0.12 (0.15)
Occupation	NO	YES	YES	YES
Locality	NO	YES	YES	YES
Observations	190,993	190,993	190,993	190,993
Adjusted R2	0.21	0.23	0.27	0.28

Note: OLS regression. All models include fixed effects on countries and rounds. See the appendix for analyses without green parties. The full results are shown in appendix table B.6.

Source: European Social Survey rounds 1–11 and Manifesto Project Database. \*\*\*p < 0.01; \*\*p < 0.05; \*p < 0.1.

Green Gender Gap in either attitudes or political behaviour, but that most of the gap remains unexplained. It is also worth noting that in Table 2, risk aversion is negatively correlated with the attitudinal variables and vote support for green parties. This contradicts the theoretical argument that people who are more risk-averse are also more likely to worry about environmental degradation and climate change. These findings indicate that variation in the adoption of green political positions is not driven by the psychological factor of risk aversion.

In addition to analysing the full sample, I conducted region-specific analyses to assess the robustness of the null finding across the four regions (see Tables B.8 to B.15 in appendix). In Western and Northern Europe, the Green Gender Gap remains significant across all variables after introducing the mediating variables into the model. There are some changes in the size of the gap, but they are not substantial. For Central/Eastern Europe, all attitudinal variables remain significant, except for the climate policy index measure. At the same time, there is still no gender gap in support for green parties and parties with a pro-environmental agenda after introducing the mediators into the model. Lastly, in Southern Europe, introducing the mediating variables into the models does not change any of the results for this region. Overall, the finding that the Green Gender Gap cannot be explained by structural, ideological, or risk aversion holds mostly across all European regions.

Lastly, an investigation of the interactions between gender and the mediating variables, presented in Appendix D, further confirms that the gap cannot be explained by differences in gender distribution across these mediators. While there is some variation in size, the gender gap remains significant across the values of the mediation variables, confirming that the Green Gender Gap is a phenomenon that cuts across education, class-based, rural-urban, and ideological cleavages. The interaction analyses also reveal that the Green Gender Gap is largest among individuals born after 1997. This suggests that the gendered response to green ideology is not only stable over time but may in fact be widening. Recent research from Western Europe on green voting supports this finding. Schäfer and Steiner (2025) find that both young women and young men are more likely to vote for a green party compared to older voters. However, the age effect is greater among women, and the gender gap is therefore largest among Millennials.

Socio-economic variables often linked in the literature to increased support for green policies and green parties cannot explain why women engage in more green political behaviour than men. The same is also true for gender differences in risk aversion and political ideology. Women are still greener even when taking into consideration that women are more risk-averse or more to the left politically than men. The findings in this paper support the notion that there is a Green Gender Gap in Europe. Men are, on average, less environmentally oriented, less concerned about climate change, feel less personal responsibility to reduce climate change, and are less supportive of climate mitigation policies than women. Similar gender differences are observed in political behaviour. However, the behavioural expression of the Green Gender Gap seems to be highly context-dependent.

## 5. Conclusion

In this paper, I demonstrate the widespread existence and stability of an empirical regularity: the Green Gender Gap. Consistent with hypothesis H1, across all regions of Europe, women consistently express greener views than men. Men are less concerned about the environment, less worried about climate change, feel a weaker sense of personal responsibility to try to reduce climate change, and are generally less supportive of climate mitigation policies. My empirical investigation confirms findings from previous studies, predominantly conducted in Western Europe and North America. However, I also expand on this earlier research by showing that a Green Gender Gap in attitudes is also present in Central/Eastern and Southern Europe, regions that have been less investigated by previous scholarship.

When it comes to the green political behavioural manifestations of

the Green Gender Gap, I do not find support for hypothesis H.3.1, a uniform gender gap across Europe. Instead, the findings are in line with hypothesis H3.2 that the political expression of the Green Gender Gap is dependent on the political context. In Northern and Western Europe, men are less likely to vote for green parties and are generally less supportive of political parties running on a pro-environmental platform, compared to women. This green voting gap persists even after controlling for the fact that women are more left-leaning, and that green parties and those emphasising pro-environmental policies tend to be positioned more to the left in the party system. The results remain significant even when I control, at the party level, for characteristics typical of green and pro-environmental parties, such as being more left-wing, more supportive of equality, and more critical of traditional morality. One of the puzzling results in this paper, which calls for further research and theorisation, is the regional variation in how the Green Gender Gap manifests politically. While women consistently express greater concern for climate change and environmental degradation across all European regions, this attitudinal gap does not uniformly translate into voting behaviour. In Central/Eastern Europe, women are more supportive of climate mitigation policies than men, yet no gender gap appears in vote choice. Conversely, in Southern Europe, women are more likely to vote for parties from the green party family, but not parties with a pro-environmental political platform.

In Northern and Western Europe, green and pro-environmental parties are institutionally embedded, electorally viable, and ideologically consistent. In these regions, women's stronger environmental preferences are more likely to translate into vote choice, as they are met with credible and visible electoral options that align with their attitudes. In contrast, in Southern and Central/Eastern Europe, weaker green party infrastructure, lower environmental salience, and greater ideological fragmentation limit the extent to which voters can act on their environmental concerns at the ballot box. These regional differences underscore the importance of considering supply-side dynamics when analysing gendered political behaviour. Voters' decisions are shaped not only by their preferences but also by the viability and the visibility of the available party options.

Furthermore, I find that women become more likely than men to vote for a green party as the party becomes more electorally successful. However, it is also possible that women's greater mobilisation in the first place is what contributes to this electoral success. This still leaves open the question of why some green parties are more successful among women than others, and how this relates to the clear West–North versus South–East regional divide identified in this paper. Future research should therefore focus on identifying the specific contextual conditions that facilitate or constrain the translation of gendered environmental concern into political behaviour. For example, looking more closely at the characteristics of green parties, or at how salient climate and environmental issues are in election campaigns, could be particularly useful.

I do not find support for hypotheses H2.1–H2.5, which suggest the Green Gender Gap can be explained by gender differences in educational level, occupational class, residential location, risk aversion, or left–right political ideology. None of the proposed mediators accounts for the gendered adoption of green attitudes or green political behaviour in Europe. The fact that these variables fail to explain the Green Gender Gap is puzzling, particularly given how consistently they are invoked in the literature to account for political and attitudinal differences. The persistence of the Green Gender Gap, therefore, suggests that we are dealing with a robust empirical regularity that existing theoretical frameworks cannot explain. Future research on the Green Gender Gap must therefore employ new theoretical approaches, rather than relying solely on the structural explanations traditionally used to explain gender gaps in political attitudes and behaviour (Shorrocks, 2018).

Investigating the interactions between age and dependent variables, I also find that the Green Gender Gap is largest among individuals born after 1997. One possible explanation for the wider gap among the youngest generation lies in their early-life political socialisation, which

occurred during a period when climate and environmental issues held significant visibility on the political agenda. Many millennials and members of Generation Z came of age and cast their first vote in political systems where green parties had become more professionalised, salient, and often central in shaping public discourse on climate and environmental issues. This particular political landscape may have triggered a gendered response, especially among the highly educated, where women became more strongly influenced by the political climate and adopted green ideological positions to a greater extent than men.

What remains unanswered, however, is why the salience of climate and environmental issues would trigger a gendered response in the electorate. The fact that the gap is largest among the youngest cohort points to the importance of investigating how gender-specific socialisation during adolescence shapes political attitudes. If gendered socialisation influences how young people perceive and engage with green politics, early-life exposure to environmental issues may lay the foundation for a gender gap that persists into adulthood. This, in turn, could help explain both the origin of the Green Gender Gap and why it appears to be widening over time.

Future research should also pay closer attention to how gender norms and gendered societal expectations might be contributing to the Green Gender Gap. Gender researchers have long argued that there is a conflict between care for climate and nature and Western hegemonic masculinity norms (Connell, 1990; Anshelm and Hultman, 2014). The gender norms that exist in Western society often socialise masculine individuals into toughness, competitiveness, rationality, independence and dominance over people and nature. Because of these internalised norms and societal expectations, masculine individuals might be less open to green ideologies and eco-friendly behaviours (Hultman and Pulé, 2018). Another possible mechanism could be the association between eco-friendly behaviours and femininity (Brough et al., 2016). One way masculine individuals protect themselves from masculinity threats is by ensuring they are not perceived as feminine (White and Dahl, 2006). They will, therefore, distance themselves from things associated with femininity, like eco-friendly behaviour and possibly green political attitudes and behaviours. Future research should investigate the cultural and social mechanisms hindering men's engagement with green ideology.

#### Declaration of competing interest

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#### Appendix A. Supplementary data

Supplementary data to this article can be found online at <https://doi.org/10.1016/j.electstud.2026.103062>.

## Data availability

Data will be made available on request.

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