

Ingvild Aarbakke

A Green Surge or Just a Ripple?

A Study Explaining the Variation in Support for
Green Parties in Northwestern Europe

Master's thesis in Political Science

Supervisor: Anders Todal Jensen

June 2022

Ingvild Aarbakke

A Green Surge or Just a Ripple?

A Study Explaining the Variation in Support for Green Parties in Northwestern Europe

Master's thesis in Political Science
Supervisor: Anders Todal Jensen
June 2022

Norwegian University of Science and Technology
Faculty of Social and Educational Sciences
Department of Sociology and Political Science

Abstract

Over the past forty years, the Green parties in Norway, Denmark, Sweden, Finland, and Germany have received varying levels of support. While the Green parties in the latter three have received increasing support and been regular participants in governments, the Greens in Norway and Denmark have struggled to survive. During the last national elections, the increasing attention towards the environment and climate issue turned into more votes for the German and Finnish Greens, while the Norwegian greens were once again unable to pass the electoral threshold. Not much comparative research exists that aims to explain why Green parties perform so differently, especially in seemingly similar countries. The aim of my research is therefore to contribute to this gap in the literature. To analyze which factors, contribute to the varying support to Green parties, I have created a comprehensive framework combining the comparative method of most similar systems design with the statistical method using multinomial logistic regression. My empirical analysis draws on data from European Social Survey round 9 from 2018/2019, as well as national election studies, relevant statistics, and findings from previous studies of Green Party support. The findings of this thesis suggest that the main factor explaining why support for green parties has varied between northwestern European countries is the existence of a competing half-Green Party that challenges the degree to which the Green Party can expand in the political space.

Sammendrag

I løpet av de siste førti årene har de grønne partiene i Norge, Danmark, Sverige, Finland og Tyskland fått varierende støtte. Mens de grønne i de tre sistnevnte landene har opplevd økende oppslutning og sittet i regjering gjentatte ganger, så har de grønne i Norge og Danmark slitt med å overleve. Under de siste nasjonale valgene har den økende oppmerksomheten rundt miljø- og klimaspørsmål gitt flere stemmer til de tyske- og finske grønne partiene, mens de norske grønne nok en gang ikke klarte å passere sperregrensen. Det finnes ikke mye komparativ forskning som tar sikte på å forklare hvorfor grønne partier presterer så forskjellig, spesielt i tilsynelatende like land. Målet med denne oppgaven er derfor å bidra til dette gapet i litteraturen. For å analysere hvilke faktorer som bidrar til den varierende støtten til grønne partier, har jeg laget et omfattende rammeverk som kombinerer den komparative metoden med most similar system design med den statistiske metoden der jeg kjører en multinominal logistisk regresjon. Min empiriske analyse baserer seg på data fra European Social Survey runde 9 fra 2018/2019, samt nasjonal valgforskning, relevant statistisk og funn fra tidligere studier om støtte til grønne partier. Funnene i denne oppgaven viser at den viktigste faktoren som forklarer hvorfor oppslutningen til grønne partier har variert mellom nordvesteuropeiske land er eksistensen av et konkurrerende halv-grønt parti som reduserer vekstrommet til det grønne partiet.

Preface

Å skrive denne masteroppgaven har vært utrolig spennende og lærerikt samt utfordrende til tider. Det er dermed flere jeg ønsker å takke:

Først og fremst vil jeg takke min veileder professor Anders Todal Jenssen for gode konstruktive tilbakemeldinger. Disse har vært til stor hjelp under skrivingen av denne masteroppgaven.

Takk til alle mine gode studievenner fra både bachelor og master for engasjerte samtaler og masse sprell. Studietiden er fylt av gode minner som jeg tar med meg videre.

Jeg vil også takke familien min og alle vennene mine ved siden av studiet. Særlig takk til mamma som alltid tar seg tid til å lytte, og alltid har noen gode ord og motivasjon på lager. Takk for at du tok deg tid til å lese utkast og gi gode tilbakemeldinger!

Sist, men ikke minst – Magnus, takk for all støtte du har gitt meg og alle de fine stundene vi har hatt utenom masterskrivingen.

Ingvild Aarbakke
Trondheim, juni 2022

Table of contents

Tables	viii
Figures	viii
1. Introduction.....	1
2. The Green Party family	3
3. The changing dynamics of Western European party systems	6
3.1 Old Politics	6
3.2 Change in voters: dealignment or realignment	7
3.3 The silent revolution	8
3.4. Party strategy in the arena of party competition	9
3.4.1 Mainstream parties' strategic possibilities.....	10
3.4.2 Mainstream parties' strategies in response to niche parties	12
3.4.3 Green parties' strategic opportunities	13
3.5 Previous research on the support for Green parties and hypotheses.....	14
4. Method.....	18
4.1.1 Comparing Norway, Denmark, Sweden, Finland, and Germany	19
4.1.2 Data and variables	20
4.2 The statistical method	20
4.2.1 Data	21
4.2.2 Dependent variables	21
4.2.3 Independent variables	22
4.3 Strengths and limits.....	23
5. Analysis	24
5.1 Key factors explaining variation in Green Party support.....	24
5.1.1 Nuclear power	24
5.1.2 Half-Green challengers.....	27
5.1.3 Social Democratic strategy toward the Green Parties	30
5.2 Analyzing party preference in Norway, Sweden, Finland, and Germany ..	32
5.2.1 New Left Party	32
5.2.2 Social Democratic Party	34
6. Discussion	37
7. Conclusion	41
References	43
Appendix.....	52

Tables

Table 1. The electoral performance of Green parties in selected countries 19

Table 2. Multinational logistic regression of votes for the New Left Party compared to the Green Party in Norway, Sweden, Finland, and Germany..... 33

Table 3. Multinational logistic regression of votes for the Social Democratic Party compared to the Green Party in Norway, Sweden, Finland, and Germany..... 35

Figures

Figure 1. Votes won by Green parties in last national elections (in percent) 2

Figure 2. Schematic representation of niche and mainstream parties 5

Figure 3. Electricity production from nuclear sources (% of total) 24

Figure 4 Climate and environment policy. Issue ownership among the four largest parties. Percentage of voters 2001-2021..... 29

1. Introduction

Over the past forty years, Green parties have advanced electorally in some Northwestern European countries while struggling in others (Meguid 2007, 2). In countries such as Finland and Germany, Green parties have succeeded in turning environmental concerns into votes and have participated in governments and/or influenced policies, while in other countries, like Norway, their political influence is still rather limited (van Haute 2016, 1, Grant and Tilley 2019, 496). Recently, a “green wave” has swept over Northwestern European countries amidst growing concerns regarding the global climate crisis. “The alarm bells are deafening”, U.N. Secretary-General António Guterres (2021) said, reacting to the latest UN report on climate change (2021) back in August 2021. The report, which he describes as a “code red for humanity”, is about the irreversible impact of global warming. Simultaneously, deadly floods and fires across Europe placed climate change and environmental concerns at the forefront of the political agenda in many countries (Peltier 2021). The growing salience of environmental concerns has led Green parties in Northwestern Europe to have some of their best elections yet (Ford and Jennings 2020, 301-302).

The Green parties in Finland, Germany, and Sweden all entered government coalitions after the latest parliamentary elections, and the Greens in both Finland and Germany experienced their best elections yet (Palonen 2020, 131-132, Bolin and Aylott 2019, Politico 2022). However, not all Northwestern Green parties are performing as well. Interestingly, Norway’s Green party was once again unable to pass the electoral threshold even though climate and environment were the most important issue for voters in the 2021 parliamentary election (Bergh, Hesstvedt and Karlsen 2022, 6). Similarly, in Denmark, where the Green party has failed, the environment and climate issues had previously never been so high on the political agenda as in the 2019 parliamentary elections (Hansen 2021, 15, Close and Delwit 2016, 244). So, even though the environment and climate issues are prioritized by voters, the Green parties in Norway and Denmark share low or non-existent support. *Figure 1* shows the significant variation in vote share for the Green parties in these select Northwestern European countries during their most recent national election. These various results for Green parties can also be observed every election back to the 1980s (see Appendix 1). This is what piqued my interest, how can these Green parties perform so differently in seemingly similar countries? My research question is therefore

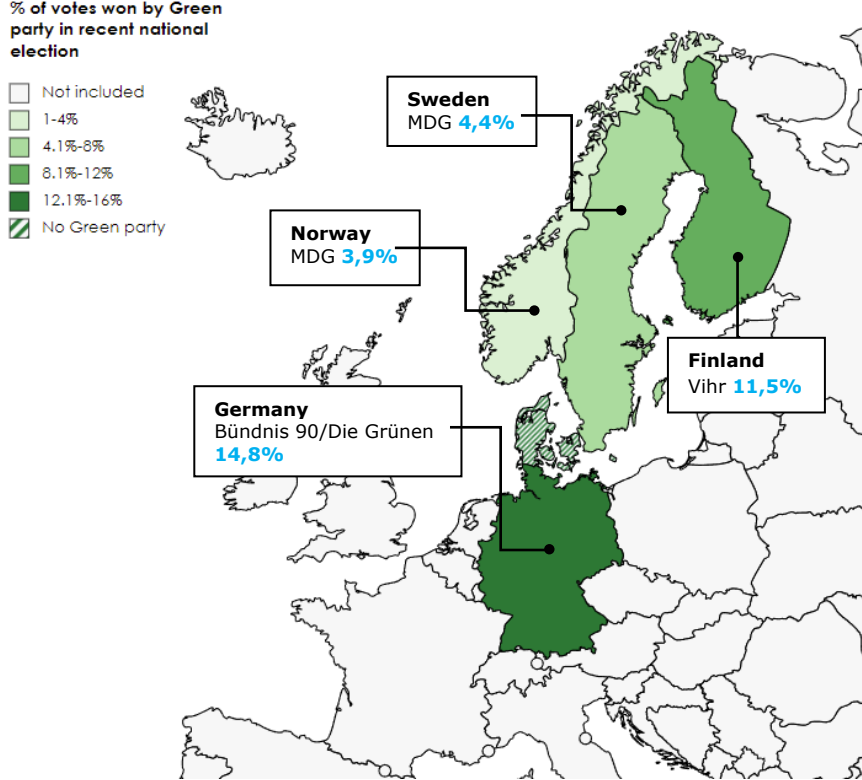
Why has support for Green parties varied between Northwestern European countries?

In this thesis, I am combining discussions of value change and cleavage theory with strategic models of party competition with perspectives on issue ownership and issue salience to create a comprehensive framework to explain the various levels of support for Green parties in various Northwestern European countries. To assess what factors cause the variation in support for Green parties in selected Northwestern European countries, I combine the comparative method of most similar systems design with the statistical method using multinomial logistic regression to find why support for Green parties varies in these seemingly similar countries. My empirical analysis draws on data from European Social Survey round 9 from 2018/2019 as well as national election studies and relevant statistics and findings from previous studies of Green Party support.

I will first discuss and define which parties are considered a Green Party in this thesis. Then, the next section covers the theory as well as previous research on support for Green parties where I introduce my hypotheses. Next, the methodological chapter presents my

approach, case selection, data, and variables. Thereafter, I am conducting a two-part analysis and describe the results. Lastly, I will discuss the findings and give a conclusion on the research question of the thesis.

Figure 1. Votes won by Green parties in last national elections (in percent)



Source: Map made by author using election results from Politico 2022. The Danish Green party’s last electoral result above 1 percent is from 1988 (see Appendix 1). In 2014 the party was dissolved, so they are therefore labeled differently.

2. The Green Party family

According to Grant and Tilley (2019, 495), “the Greens are the most enduring and cohesive new party family since the rise of the Social Democrats a century ago.” Since the aim of this thesis is to find why support for Green parties has varied it is vital to establish a clear classification of Green parties through a shared identity so that these parties can be compared across space or time. One common way to identify Green parties in the literature (Carter 2013, van Haute 2016) is to use Mair and Mudde’s (1998, 214-215) four, sometimes overlapping, approaches for identifying party families: (1) party name, (2) transnational links, (3) origins and social bases, and (4) party policy and ideology.

First, the idea of classifying by party name is that parties themselves know their ideological identity the best and that this will be reflected in their name (Mair and Mudde 1998, 220). However, the name could be misleading, and by just classifying Green parties by the label ‘Green’ one could include parties that do not belong in the Green party family or exclude parties that do (van Haute 2016, 2). These parties should be viewed as ‘green’ by other Green parties. This takes us to the second approach which is the party’s affiliation with a transnational federation, which is simple to apply as lists of members usually are accessible online (Mair and Mudde 1998, 216). When it comes to Green parties, membership in the *European Federation of Green Parties* (also called the European Greens) can be useful when considering different parties’ ideological profiles and programmatic emphasis on the environmental issue. This federation was founded in 1993, and the full members from Northwestern Europe included: De Gronne (Denmark), Vihreä Liitto (Finland), Bündnis 90/ Die Grünen (Germany), Miljøpartiet de Grønne (Norway), Miljöpartiet de Gröna (Sweden) (Dietz 2000, 201). Thus, these parties are internationally recognized as belonging to the green party family. Members pledge to follow the *Guiding Principles of the European Green Parties* which provide the framework for the Green parties’ political programs (European Greens 2006). However, more recently, in some countries such as Denmark, the Socialist People’s Party has become a full member of the European Greens (European Greens Statutes 2021, 24). Thus, these two first approaches do not define the Green Party family properly for this thesis.

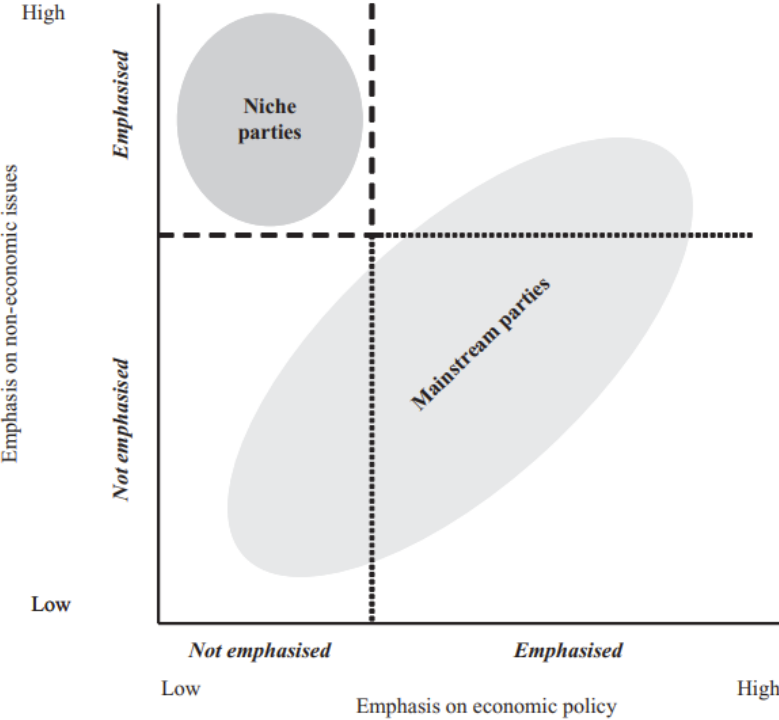
The third approach aims to group parties that have organized themselves in related historical situations or have goals that represent similar interests, meaning they have the same origin. This approach originated in the classic categorization of parties on four critical cleavages first created by Lipset and Rokkan in 1967 (Mair and Mudde 1998, 215). The environment emerged as a political issue during the 1970s and 1980s, after Lipset and Rokkan’s hypothesis (1967), which established a new value conflict that cut across established cleavage structures and disturbed the stability of Western European party systems by establishing new political parties such as the Greens as well as New Left parties with partly Green agendas (Carter 2013, 73, Müller-Rommel 1989, Kitschelt 1989, Kitschelt 1994, Inglehart 1971, 1977, Hooghe, Marks and Wilson 2002). Green parties were started by people that believed that politics should be based on a completely new set of values that did not exist in any current political tradition (Parkin 1989, 19). Some scholars identified these new Green parties as “new politics” parties that display a “new politics” ideology, which includes a commitment to equal rights, individualism, participatory democracy, ecology, unilateral disarmament, solidarity, and leftism (Poguntke 1987, 78-80, Müller-Rommel 1989). Hence, the political profile of the Green parties is largely related to new political issues and new ways of political participation in advanced industrial societies (Müller-Rommel 1989, 7-8). However, other parties belonging to the New Left

also developed from this new value conflict, so the definition of a Green party needs further explaining.

Therefore, the Green parties included in my thesis are largely chosen based on the fourth approach where one examines party policy and ideology, which indirectly relates to the third approach where parties are in the same family if they defend similar interests and share a common goal (van Haute 2016, 3). From a theoretical standpoint, Green parties can be categorized as *niche parties* (Meguid 2005, 2007, Adams et. al 2006, Wagner 2011, Grant and Tilley 2019). Niche parties have received increasingly scholarly attention in the last decade; however, the literature has predominantly focused on populist right-wing parties. Yet, Green parties have perhaps never been as relevant as they are today which makes them a vital case to study. Niche parties, specifically Green parties, differ ideologically from their mainstream competitors. Mainstream parties are defined as “the electorally dominant actors in the center-left, center, and center-right blocs on the Left-Right political spectrum” (Meguid 2005, 348). This includes the Socialist, Social Democratic, Labor, Christian Democratic, Liberal and Conservative parties (Adams et. al. 2006, 513).

Meguid (2005, 347-348) states that niche parties differ from their mainstream competitors in three important ways. First, they disregard the traditional class-based cleavage and instead politicize issues that have previously been outside the dimensions of party competition. Green parties first emerged in the 1970s with issues concerning environmental protection, the elimination of nuclear power, and nuclear disarmament. Secondly, the new issues raised by niche parties do not overlap with existing cleavage lines and cross-cut traditional partisan alignments. The third and last difference is that niche parties only emphasize a narrow set of issues. It is important to note that even though the number of issues covered in their manifestos has increased over the years, most of them are still viewed as single-issue parties by the voters. The Greens are still different than their mainstream competitors because they compete primarily on a small number of non-economic issues that do not fit the existing “left-right” partisan divide which can be observed in *figure 2* (Wagner 2011, 847-848, Meguid 2007, 4). Their political programs focus on environmental protection above anything else while also including issues like European integration, cultural liberalism, and free movement that earlier were outside the dimension of party competition (Wagner 2011, 847-848, Hooghe and Marks 2018, 123, Kriesi et. al 2006, 940). To gain voter support they depend on the salience of their main policy stance – environmental protection. Green parties are niche competitors because they do not shift their policy programs based on public opinion or the preference of their electorate while mainstream parties tend to do so (Wagner 2011, 848, Adams et. al. 2006).

Figure 2. Schematic representation of niche and mainstream parties



Source: Wagner 2011, 848

3. The changing dynamics of Western European party systems

To answer why support for Green parties has varied in Northwestern European countries, it is important to first form an understanding of how these new Green parties managed to disturb the established party system and who their voters are. As Wolfgang Rüdig put it: "to survive, green parties have to build a stable electorate that identifies with the party and votes for it on a regular basis" (Rüdig 1991, 7). Multiple scholars have described a transition from "old politics" which valued economic growth, national security, and traditional lifestyles to "new politics" values of environmental quality, social equality, and alternative lifestyles in Western Europe. People demanded these new issues outside of the established parties which led to the emergence of new movements based on single issues like environmental protection Müller-Rommel 1989, 5). New parties, including the Greens, were created based on these new political demands that are cutting across established cleavage structures and disrupting the stability of Western European party systems (Kitschelt 1989, 9). This dimension of contestation has been identified as new politics/old politics (Franklin, Mackie and Valen 1992, Müller-Rommel 1989), postmaterialist/materialist (Inglehart 1971, 1977), green/traditionalist and Left-libertarian/authoritarian (Kitschelt 1994) and GAL/TAN (green/alternative/libertarian and traditional/authoritarian/nationalism) (Hooghe, Marks and Wilson 2002).

3.1 Old Politics

This new axis of polarization is challenging the dominance of the Old Politics conflicts described by Lipset and Rokkan in their book *Party Systems and Voter Alignments* (1967). When studying the development of party systems in Western Europe they identified several political cleavages which form party alignments for voters. These are relatively stable patterns of polarization where different social groups vote for different parties. Lipset and Rokkan (1967) established a historical framework for the notion that social characteristics have an impact on voting. Lazarsfeld, Berelson, and Gaudet recognized this early on and stated that "a person thinks, politically, as he is, socially. Social characteristics determine political preference" (1948, 27). According to Lipset and Rokkan (1967), the party systems in Europe have been structured by stable forms of societal cleavage. They argue that the national and industrial revolutions in Europe act as critical junctures that have resulted in long-term alignments between social groups and political parties. Each of the revolutions has created two cleavages. The conflict lines that emerged from the National Revolution are represented by the center-periphery cleavage and the religious cleavage between church and government. Then, the Industrial Revolution gave rise to economic interest conflicts which solidified the class conflict between workers and owners and the sectoral cleavage that represents the opposing agricultural and industrial interests (Lipset and Rokkan 1967, 14-19). The Industrial Revolution was important because it gave rise to what has later been labeled as *left-right materialism*, which are central political value orientations that have been especially important in industrial societies. The left versus right material value orientations are traditional conflict lines in an industrial society and are the central value conflicts of Old Politics. Underlying the left-right polarization was a conflict over control and power over the means of production and the distribution of income. This includes values of economic and social equality versus differentiated rewards for stimulating efforts, and worker's control and state regulation of the economy versus valuing private enterprise and market economy (Knutsen 1995, 3, Inglehart 1984, 25).

The long stability Lipset and Rokkan observed in European party systems led them to develop their well-known 'freezing hypothesis' that despite large social and cultural changes "the party systems of the 1960s reflect, with few but significant exceptions, the cleavage structures of the 1920s" (Lipset and Rokkan 1967, 50). Thus, Lipset and Rokkan (1967) observed that the modern party system was frozen along the cleavages that defined the party system in the 1920s. The party system had stabilized because all larger social groups had gotten their own party around 1920. A few years later, Rose and Urwin (1970, 295) found strong empirical support for Lipset and Rokkan's observation of the stability of party systems since World War II and states that "the electoral strength of most parties in Western nations ... has changed very little from election to election, from decade to decade, or within the lifespan of a generation". This was further supported by Franklin (1992, 405), that concluded that the stability of party systems was caused by the presence of social cleavages until the late 1960s. Based on these social cleavages, political parties stabilized party competition by creating long term-connections with core supporters and made organizational structures that made it difficult for challenging parties to emerge (Lipset and Rokkan 1967).

3.2 Change in voters: dealignment or realignment

There are "signs that the structure of democratic party systems, frozen for so much of our lifetime, is beginning to thaw" (Flanagan and Dalton 1984, 459). Scholars have argued that, since the 1960s, the continuous stability observed by Lipset and Rokkan (1967) has been challenged by electoral dealignment and realignment, both processes of change that are occurring in most party systems (Kitschelt 1989, 9, Flanagan and Dalton 1984). The former refers to the process where voters "do not base electoral choices in long-term party allegiances and is more permeable to the influence of other factors over voting decisions" (Garzia, da Silva and De Angelis 2022, 323). Dalton (1984) observed a long-term trend towards partisan dealignment in advanced industrial democracies where more voters lack attachment to a specific political party. The social cleavages' stabilizing effect on electoral behavior is weakening, and parties are to a lesser degree seen as representatives of clearly outlined social groups. Thus, the stability of partisan alignments in Western party systems is withering. A similar pattern is observed by Franklin et.al. (1992), who finds that the stability of party systems is disrupted by the decline of cleavage politics. Left-right issues are not that important to voters anymore as new issues are more important to them. Voters are to a lesser degree responding to issues based on their group loyalties such as class and religion. Contemporary political cleavages are increasingly built on common political values, like environmental protection, than on formal group alignments, because group alignments today are more fluid and less institutionalized (Dalton 2018, 11).

However, some new politics scholars expected this process of partisan dealignment to be temporary. New niche parties, like the Greens, have provided dealigned voters with previously unavailable electoral choices (Meguid 2007, 23). This change is linked to the process of realignment which refers to "the transition between electoral areas ... where parties and their electorates adjust their positions along a new cleavage dimension" (Flanagan and Dalton 1984, 8). In post-industrial societies, the traditional socio-structural cleavages in Lipset and Rokkan's model (1967) for freezing political alignments are gradually being replaced by new value cleavages. In this perspective, the rise of new materialist/post-materialist value orientations will become a significant party cleavage that will reorganize the party system and create new parties (Knutsen 1995, 4, 28). When it

comes to Green parties, this process of realignment was especially observed in Germany in 1989 where over 70 percent of the voters for the German Greens strongly identified themselves with the party and would vote for them again in the next election. Though, this same pattern could not be observed to that extent in other West European countries at that time (Rüdig 1991, 30). Dalton (2018) finds evidence that voters have realigned their positions on the new value cleavage from the 1970s until 2018. He also observes that the Greens have been gradually more capable of supplying voters with shifting values with representation on this new political divide.

So, while the dealignment model expects a long-term decline in party attachments, the realignment model foresees a short-term phase of partisan instability followed by a new stable partisan alignment based on values. Even if the models of dealignment and realignment have different views of the future electoral trends, they both help to explain the various changes happening in contemporary party systems (Flanagan and Dalton 1984, 8, 17).

3.3 The silent revolution

The wakening of traditional cleavages and the voting patterns based on them are linked to new politics theory that describes a shift from a political culture based on social structural relations to a value-based political culture. One of the most influential new politics scholars is Ronald Inglehart. According to him, the rise in new political issues can be explained by the gradual development of postmaterialist value orientations. He described this fundamental but slow shift in political life as a 'silent revolution.' Over 50 years have passed since Inglehart (1971) first famously observed that the younger generation held significantly different values than the elder population. Consequently, he hypothesized that a transformation might be taking place in the political cultures of advanced industrial societies

The values of Western publics have been shifting from an overwhelming emphasis on material well-being and physical security toward greater emphasis on the quality of life

(Inglehart 1977, 3)

There is an intergenerational change that underlines this value shift as the development of these new value priorities can largely be explained by the remarkable economic security, as well as technological development, that a large portion of the Western population has been raised under after World War II. Drastically increased income levels and welfare programs have led people to have significantly more economic and physical security after the war in virtually all Western countries (Inglehart 1977, 3-13). Furthermore, the share of the population in advanced Western countries with higher education has dramatically increased after the war. This is one of the main factors contributing to cognitive mobilization that leads to increased political skill and participation that give rise to elite-challenging issue-oriented groups (Inglehart 1977, 5, 297).

Inglehart's thesis is partly inspired by Maslow's (1954) hierarchy theory of human needs. According to him, people possess basic needs, which are physiological needs and safety, and higher-order needs, concerned with belongingness, esteem, and self-fulfillment. The two basic needs need to be fulfilled to a certain extent before higher needs can arise and express themselves. Inglehart (1977) reduced Maslow's five needs into two levels of needs

and two corresponding values: *materialism* and *post-materialism*. When people's primary needs are met their value orientation changes which according to Inglehart leads individuals to have an increased focus on values like self-realization, needs for belonging, and esteem. This change in political culture is bringing new issues into the political arena that do not come from economic needs but rather differences in lifestyle. One of these post-material values that are entering the mainstream political arena is environmental protection. This conflict is between environmental interests on one side and economic interests on the other side. Particularly students have supported the environmental issue and helped to bring it to the forefront in the political arena (Inglehart 1971, 1977, 3-13). Environmental protection policies have been especially advocated by the Green parties and have pushed mainstream parties to compete on this new divide. Greens are therefore depending on support for this new issue, and they are more likely to receive votes from those individuals that hold postmaterialist values than those with materialist value orientations (Inglehart 1995, 68). It can therefore be expected that Green parties will thrive in countries with higher levels of post-materialism (Inglehart 1977). Measuring levels of post-materialism, Inglehart (2008, 137-138) finds Sweden to score the highest on the materialist/postmaterialist value scale where postmaterialists outnumber materialists by 5 to 1. Equivalent results can be seen back in the 1990/91 World Value Survey where Sweden scored the highest on public support for environmental protection, closely followed by Denmark and Norway. Both Finland and Germany however are not in the top ten countries (Inglehart 1995, 61). More recently, like Sweden, Denmark now also has a predominantly postmaterialist public. On the other hand, Norway and Germany have a slight majority of materialists, and Finland scored lower than them which means that materialists outnumber the postmaterialist more clearly. It is important to note however that these three countries are close to having an even balance between materialists and post-materialists, and that they are some of the countries with the highest level of post-materialism overall (Inglehart 2008, 138).

Over three decades after his original thesis, Inglehart states that "a massive body of evidence demonstrates that an intergenerational shift from materialist to post-materialist priorities has been occurring" (2008, 131). Therefore, according to him, the intergenerational changes that he originally predicted have taken place in countries that are experiencing higher economic security. His thesis is an important contribution to identifying potential voters for the Green parties. Although, he only argues that support for Green parties is positively related to higher levels of postmaterialist and does not comment on why these parties perform differently in countries with high levels of economic security and postmaterialist values in the public.

3.4. Party strategy in the arena of party competition

The development of postmaterialist values alone cannot account for variation in Green party support over time. Raising concerns for the environment does not automatically translate into votes for the Greens (Rüdig 1991, 29, Meguid 2007, 2). Value change helps explain the development of Green parties and their voters but does not necessarily give much insight into the various levels of support they experience across Northwestern Europe. In this chapter, I am discussing parties' strategic possibilities in the changing dynamics of party competition, and how mainstream parties' strategic choices can impact the electoral fortune of new niche competitors.

3.4.1 Mainstream parties' strategic possibilities

The degree to which mainstream parties can react to new challengers has been debated. Lipset and Rokkan (1967) argued that the party system froze into stable and long-lasting configurations once the structural cleavages had been mobilized by mainstream parties. This stability was challenged by changing value orientations and new conflict lines. According to Hooghe and Marks (2018), these major shifts in voter preference led to the rise of new parties and did not change the established ones because "parties are programmatically inflexible" (Hooghe and Marks 2018, 112). However, other scholars have argued that mainstream parties can change in response to these new issues and use different tactics when meeting new, challenging parties. Kitschelt (1994) argued that new political preferences have led to the decline of party identification and class voting in Western European countries which has reshaped party competition. A party's fortune is mostly determined by its own choice of strategies in the arena of party competition, and the external institutional, social, and economic setting plays a smaller role in its fortune. Success or failure is therefore not explained by changes in the socio-economic class structure itself but depends on if their strategic appeals take advantage of these changes and create new electoral coalitions. Facing these changes, he believes that parties can adjust to new demands from voters. He also found that the electoral fortunes of parties are affected by their competitors' moves. Strategic mistakes made by the competitor can lead to success for opposing parties, while clever strategic choices made by the competitor can lead to lower support for their opponents (Kitschelt 1994, 4-7, 113). Similarly, Kriesi et al. (2006, 951) consider the success or failure of mainstream parties to be contingent on the strategies they choose when facing new challenging parties associated with the new political cleavage in Western Europe. Overall, there has been a development in how political parties in Western Europe compete for electoral support. Before, party competition was all about where parties positioned themselves on socio-economic issues, whereas now it is not only about positional competition but an increased focus on issue competition, i.e., which issues should dominate the political agenda (Green-Pedersen 2007, 607). The rise of new parties, like niche parties, is challenging the way mainstream parties traditionally have acted in competition with their mainstream competitors on the left-right spectrum. According to Meguid (2007, 23), since niche parties are lacking a substantial number of partisans, instead of drawing voters mainly of pre-existing party loyalties they are attracting voters on a limited set of issues that have previously been outside the dimensions of party competition. Thus, mainstream parties must change strategies in this new issue-based competition which can influence the electoral fortune of niche parties like the Greens.

According to Meguid (2007, 14-15), parties can not only shift their position on a given issue dimension to increase or decrease their vote share and the vote share of their competitors but also compete by changing the salience and ownership of issue dimensions in the political arena. Her theory differs from the traditional spatial theory that limits party behavior to movement along existing policy dimensions. Most famously, Downs's (1957) spatial theory finds that political parties compete for votes by shifting their policy positions and voters choose the party whose position is closest to their own. According to him, when a party is faced with a strong competitor, "Party B must adopt some of Party C's policies, thus ... taking the wind out of Party C's sails. This will cause Party C to collapse" (Downs 1957, 118). According to Meguid (2005, 2007, 4-15), new parties introduced a new issue axis cutting across the existing left-right divide. Therefore, she aimed to further develop the traditional spatial theory to explain the interaction between mainstream parties and

their unequal competitors. These smaller, single-issue niche parties are fundamentally different from their mainstream competitors. She argues that the traditional spatial theory is useful when explaining competition between equal-sized, economically orientated mainstream parties, however, the interaction between mainstream parties and niche parties needs additional explaining.

Rabinowitz and Macdonald (1989, 94-110) attempted to improve the traditional spatial theory by presenting a directional model for issue voting. Contrary to the proximity model, where the party closest to the voter receives their vote, in the directional model voters are drawn to the party that expresses their position the strongest. The directional model assumes that issues create emotional responses in voters that creates the direction (pro or contra), and that there is an intensity in the response, representing how strongly the voter feels about the issue. The model can be seen as a scale running from -5 to +5 with a neutral point in the middle where the intensity of the direction is measured from this point. Voters prefer the party expressing the most emotionally intense arguments for the voter's position on the issue. However, if a candidate is too extreme and is outside the 'region of acceptability' at either side of the dimension, they will automatically lose support. If the voter and the candidate are directional compatible the candidate's rise in intensity will make the voter like the candidate more, while if the voter and the candidate are directionally incompatible the higher intensity will make the voter like the candidate less. Also, instead of the spatial theory's assumption that candidates are choosing a position on every issue that can be important to any voter during the election, the directional model argues that candidates have control of issue emphasis where they can be intense on issues that benefit them and ignore those issues that they do not want to be associated with. The more intense a candidate is regarding an issue the more support or opposition they can generate concerning that issue. Especially in multiparty settings the more intense parties, within the region of acceptability, would be the most successful while the parties in the center will be vulnerable. Center voters are low intensity, so they are more difficult to mobilize.

Meguid (2007) argued that neither the traditional spatial model nor the directional model was sufficient in explaining the competition between mainstream parties and their unequal competitor. She, therefore, included parties' ability to increase or decrease their vote share and the vote share of their competitors by changing the salience and ownership of issue dimensions in the political arena. According to her, a party's issue ownership or credibility on a given issue plays a key role in today's issue-based voting where votes are not based on partisanship or call loyalties but rather on policies. In this situation of issue-based party competition, voter support for a party depends on (1) salience or the importance of the party's issue, (2) the attractiveness of the party's position on a given issue, and (3) the party is perceived as the rightful issue owner (Meguid 2007, 24). According to the theory of issue ownership, parties can make a lasting positive reputation of competence of specific issues. Voters have beliefs about which party is the greatest at handling particular issues. Therefore, the support for a party increases when candidates emphasize the issues owned by their party and ignore all issues they do not own (Petrocik 1996). While mainstream parties have multiple issues they compete on, meeting Meguid's (2007, 24) three conditions for voter support can be difficult for a niche party because they must fulfill these conditions on one single issue dimension, or it will cost them electoral support (Meguid 2007, 24).

3.4.2 Mainstream parties' strategies in response to niche parties

According to Meguid (2007), when reacting to niche parties, mainstream parties have access to a broader and more effective range of strategies than presumed by traditional spatial theory, and she argues that "the fortunes of niche parties are ... a function of the strategic responses of the mainstream parties in competition with each other" (Meguid 2007, 22). Her theory on the role of mainstream party strategy in niche party success was first published in an article back in 2005, where she argued that mainstream parties have three possible strategies when addressing a niche party's key issue: *accommodative*, *adversarial*, or *dismissive* (Meguid 2005, 348-349). The first involves adopting their policies, the second is opposing their policies, and the third means just ignoring the niche party's policies completely.

The dismissive strategy will lead to decreasing electoral support for the niche party. When mainstream parties choose the dismissive strategy it has an issue salience-reducing effect on the niche party's dimension. By not taking a stance on the issue, the mainstream party will signal to voters that the issue is irrelevant (Meguid 2005, 349). However, mainstream parties cannot always ignore new political issues. Using the Green issue as an example, Spoon, Hobolt, and De Vries (2014, 364) argue that mainstream parties are more likely to respond to the emergence of a new issue if the niche issue owner is an electoral threat. Also, non-issue owning mainstream parties will respond if they believe that the new issue presents an electoral opportunity to enhance their vote potential in a favorable political and economic climate. If the economy is doing well, there are greater opportunities to attract voters on new non-economic issues, especially if the issue is important to the public. Thus, sometimes mainstream parties choose to respond to issue ownership of other parties.

When the niche party is perceived to be an electoral threat, and their issue cannot simply be ignored, mainstream parties can choose the accommodative strategy or the adversarial strategy. The former will draw voters away from the niche party because the mainstream party will adopt a position similar to the niche party's which will undermine the uniqueness of the niche issue (Meguid 2005, 2007, 28-29). The mainstream parties that choose this strategy are seeking issue ownership by including moderate environmental defense in their programs and using greener rhetoric to appear as green as the actual Green Party (Carter 2013, 76). Voters now have a choice between similar parties, and because of the mainstream party's legislative experience and access to voters, they are likely to become the new issue owner. Because they are competing on a single issue, niche parties are more vulnerable to their mainstream competitors' tactics and have limited opportunities to respond to these strategies themselves on their single-issue dimension. However, sometimes the mainstream party's strategy choice can boost electoral support for the niche party. The adversarial strategy is when a mainstream party takes the opposite position to the new issue introduced by the niche party which increased the issue salience for the electorate and reinforces the niche party's issue ownership. Usually, this is a tactic used by mainstream parties that are not directly threatened by the niche party as a weapon against their mainstream opponents. The niche party will end up stealing votes from the other mainstream party. Therefore, support for Green parties depends on the tactics used by mainstream parties (Meguid 2005, 349, 2007, 15-33).

3.4.3 Green parties' strategic opportunities

Based on Meguid's (2007, 24) argument, to gain support for their environmental issue, Green parties must work to: (1) be perceived as the issue owner of the environment, (2) make the environmental issue salient, or important to the voters, and (3) hold an appealing position on the environmental issue. Niche parties such as the Greens can have a strategic advantage if they are entrepreneurs of new issues that have previously been outside the arena of party competition. However, they only have a chance to succeed if the competence or trust in mainstream parties is questioned (De Vries and Hobolt 2020, 9). Competence is an important dimension of issue ownership that refers to a party's perceived problem-solving capacity. Across Europe, Green parties are perceived to be highly competent to deal with the environmental issue which indicates that they have high issue ownership (Abou-Chadi 2014, 421-422). Following Petrocik's (1996) theory of issue ownership, this means that some European Green parties have been able to produce a long-lasting positive reputation of competence on the environmental issue. However, this is not likely to be the case in countries like Norway where support for the Green Party remains low (Grant and Tilley 2019, 496).

An increasing salience of the environmental issue for the electorate will lead mainstream parties to either emphasize the green issue or ignore it, especially if the Green Party is experiencing a rise in support since the previous election. Particularly mainstream parties on the left are likely to politicize the environmental issue because it can benefit them electorally and Green parties are likely coalition partners. Because when the environmental issue is politicized it causes partisan realignment where support for Green parties is expected to increase (Spoon, Hobolt and De Vries 2014, 374, Abou-Chadi 2014, 422-423). Green parties will then be targets of mainstream tactics as they are likely to choose an accommodative strategy to undermine the Greens' issue ownership. The competence of the parties will then be questioned where mainstream parties have an advantage with more legislative experience and more contacts in media to reach voters (Meguid 2007, 29). However, mainstream parties can struggle to incorporate the environmental issue into their political program if it conflicts with their position on socio-economic issues. Consequently, Green parties have the chance to gain support based on the environmental issue (Carter 2013, 74). Also, mainstream parties cannot freely go back and forth on the strategies used toward the Greens as they will lose credibility with voters. If they do, mainstream parties will not be able to establish themselves as owners of the environmental issue which will benefit the Green Party (Meguid 2007, 35-36).

As mentioned, niche parties such as the Greens have limited opportunities to respond to mainstream parties' strategies on their single-issue dimension (Meguid 2007). However, some scholars have argued that the Green parties' status as niche parties is not as inflexible as they can choose to change their salience profile and switch to a mainstream one. This strategic choice is based on vote-seeking motivations where parties with a niche profile are found to be more likely to switch to a mainstream profile when they have experienced vote loss in the last election and less likely to change if they gained votes. In this way, Green parties can alter the salience of the environmental issue when competing with other parties. They adopt a mainstream strategy by emphasizing other issues like the economy more or deemphasizing their environmental issue. Especially smaller and younger niche parties are more likely to change to a mainstream profile when facing electoral defeat (Meyer and Wagner 2013).

It can however be beneficial for Green parties to keep their niche profile where they focus on environmental protection above anything else. This is especially the case for Green parties that developed directly from a strong social movement. If the Green Party continue to emphasize the core issue that this movement represents, they will have an ally that will keep their issue salient, increase voters' perception of the party's issue ownership and work together to reach their policy goals (Blings 2020, 221, 235). Some scholars have found evidence that indicates that niche parties can lose voters when they change their policy positions away from their core issue (Adams et al. 2006, Blings 2020, 236). While mainstream parties can change their policy positions without getting penalized, niche parties will experience vote loss if they attempt to moderate their policy position from the last election to better match public opinion (Adams et al. 2006, 513-514). This can be explained by the fact that niche parties usually attract voters that are more policy-focused compared to mainstream party voters. Niche parties will therefore be punished electorally much quicker when changing policy positions than their mainstream competitors but at the same time experience more devoted support when focusing on their core issue (Adams, Ezrow, and Leiter 2012, 1288). Niche parties like the Greens are often relatively small which means that losing core voters could easily lead to a loss of parliamentary representation.

3.5 Previous research on the support for Green parties and hypotheses

Based on the theoretical discussion, mainly derived from Inglehart (1977), three main individual factors can help explain support for the Green Party compared to other parties: supporting environmental protection, being young, and completing higher education. Other factors predicting Green Party voting include being female, not religious, urban as well as having middle to higher income (Poguntke 1989, Birch 2009, Dolezal 2010, Rüdig 2012, Grant and Tilley 2019, Ford and Jennings 2020). The following section will focus on previous research that has discussed the possible effect of environmental protection attitudes, age, and education on support for Green parties.

First, there must be a voter demand for the Green Party's environmental issue. An individual that has environmental concerns linked to climate change, nuclear hazards, and environmental quality are more likely to vote for the Green Party (Schumacher 2014, 307). Increasing focus on environmental protection can be linked to the shift toward postmaterialist values that Inglehart observed in Western publics (1971, 1977). It is expected that those that emphasize postmaterialist values have a different voting pattern than those that emphasize materialist values (Knutson 1995, 1-4). Generally, post-materialists are more likely to vote for parties on the left (Inglehart 1977, 319). Though, multiple scholars have particularly linked higher levels of post-materialism in a country to increasing levels of support for the Green parties (Inglehart 1977, Müller-Rommel 1989, and Grant and Tilley 2019). Interestingly, the Scandinavian countries are classified as relatively postmaterialistic, but the Green parties have experienced various levels of support. Whereas the Greens in both Finland and Sweden have been experiencing decent electoral support, in Norway and Denmark the Greens have failed to reach the same levels of success (Bolin 2016, 158). When looking more closely at individual characteristics, those that do vote for the Green Party are more likely to hold postmaterialist values than the average voter (Poguntke 1989, 187, Franklin and Rüdig 1995, Birch 2009, 61). These Green Party voters are found to value environmental protection, and it is these pro-environmental attitudes that differentiate them from other party voters (Dolezal 2010).

Overall, based on the theoretical framework as well as these previous findings, it is expected that

H₁ The greater the support for environmental protection the higher likelihood is for an individual to vote for the Green Party

Multiple studies show that Green parties tend to be supported by younger people (Poguntke 1989, Inglehart 1990, Dolezal 2010, Rüdig 2012, Grant and Tilley 2019, Ford and Jennings 2020). It is therefore argued that Green voters are proportionally younger, and as they grow older, their support for the Green party fades (Rüdig 2012, 116). Although, in the German case it has been debated whether the Green Party is still mainly supported by younger voters or if their support for the Greens is based on the individual voter's life cycle. Following Inglehart's value thesis (1971, 1977), Rüdig (2012, 116) found that the German Greens receive dedicated support from older generations, especially the '68 generation that Inglehart first linked to the rise of postmaterialist values and new political issues. Therefore, the German Green voters can be perceived as staying loyal to the party as they age. This older generation is larger than the 18-24 and 25-34 cohorts in Germany in addition to having higher voter turnout. So, this might contribute to explaining the various levels of support between the German Greens and the different Nordic Green Parties that based on the literature largely draw support from younger voters. Therefore, it is expected that

H₂ Younger voters are more likely to vote for the Green Party

According to previous studies, higher education consistently predicts support for Green parties (Poguntke 1989, Müller-Rommel 1998, Dolezal 2010, Grant and Tilley 2019). Inglehart (1990, 6, 56) linked rising levels of education to the rise of post-material values which led to increasing salience of new political issues. Postmaterialists are generally higher educated and are more likely to emphasize environmental protection than Materialists. Importantly, the share of tertiary attainment for adults differs between the four cases. In 2020, the share of 25-64 year-olds that have achieved tertiary education is 48 percent in Finland, 45 percent in both Norway and Sweden, and 31 percent in Germany (OECD 2021, 42). The difference in the share of the adult population that has higher education may have an impact on the number of voters for the Green parties. Overall, it is believed that

H₃ The likelihood of voting for the Green Party increases when the individual has completed higher education.

There are other factors than individual ones that can explain support for Green parties. One key factor is connected to the origins of the Green parties. Many Green parties in Northwestern Europe emerged directly from anti-nuclear movements (Grant and Tilley 2019, 498). The goal of these movements was "to prevent the completion of nuclear power plants under construction, to prevent work from beginning on planned projects and, ultimately, to shut down existing nuclear facilities" (Kitschelt 1986, 60). The presence of tangible environmental disputes, for instance over nuclear power production, can have a positive effect on the Green Party vote share (Grant and Tilley 2019, 508). This conflict reflects a clash of worldviews with postmaterialists on one side who links nuclear power to environmental destruction, and materialists on the other side who associate the use of nuclear power with economic growth and full employment (Inglehart 1990, 268-269). According to Carter (2008, 229-230), Green parties that emerged from anti-nuclear movements were firmly grounded in a broader political network, and therefore had a large pool of potential supporters. Green parties that do not emerge from strong social

movements may find it difficult to build networks to establish themselves as a significant political force and gain support. All things considered; it is possible that nuclear energy production can help explain the variation in Green Party support which leads to the development of the following hypotheses

H₄ The presence of a substantial conflict over nuclear power production in a country has a positive effect on Green Party support.

Additionally, the opportunity for Green parties to do well is possibly connected to specific characteristics of the established party competition. Competition between parties has to a greater extent become a matter of issue ownership. For parties, it is crucial to have high credibility among the voters on their core issues and to work to put these issues on the voters' agenda (Green-Pedersen 2007, 609-610). For niche parties like the Greens, this means that they compete to be seen as the most credible on their one issue dimension: the environment. When Green parties emerged in the 1970s and 1980s, they were in direct competition with the renewed socialist parties, the New Left, over the environmental issue (Kriesi et. al 2006, 935-936). In Western Europe, some Socialist parties are more concerned with Old Politics issues linked to economic stability and working-class rights while others are more focused on New Politics issues associated with quality-of-life issues. The latter is New Left parties that are competing directly with Green parties over the "New Politics voter" (Müller-Rommel 1989, 17-18). To not lose voters, socialist parties may change their position on some issues (Kriesi et. al 2006, 936). When left-wing parties share ideological similarities with the rising Green Party, they can potentially reap electoral benefits by emphasizing the green issue (Spoon, Hobolt, and De Vries 2014, 375). However, in some countries like Norway, the green issue is also embraced by other parties such as the Liberal Party. Therefore, Green parties are competing directly with "half-Green" challengers, parties that emphasize the environmental issue equally to their other main issue, to be perceived by voters as the most competent to deal with the environmental issue. These "half-Green" parties have a partly green profile but are at the same time associated with other party families like the Socialist. The renewed socialist parties, i.e., the New Left, provide voters with green politics as well as policies advocating for fair distribution of wealth and income. Half-Green challengers can affect support for the Green parties by "stealing" their votes. This follows the logic of the theoretical argument of party strategy discussed earlier. Thus, it is expected that

H₅ The competition from rival half-Green parties decreases the degree to which Green Parties can expand in the political space.

Finally, in her original article, Meguid (2005) found evidence that the electoral fortunes of niche parties are shaped by the strategies used by mainstream parties. Measuring niche party success, Meguid (2007) found that niche parties' vote share increases if both major parties take adversarial positions on the main issue of the niche party. This means that if the environmental issue is opposed by both major parties the Green party can succeed. However, her finding has been debated. Carter (2013, 91-92) found mainstream parties generally do not respond to the environmental issue, even in countries with a successful Green Party. When Mainstream parties have used different strategies towards the Greens, they may have utilized them inefficiently as they have failed to completely exclude the environmental issue from the political agenda but also left the Green party's space to claim this issue and secure electoral benefits. Furthermore, Grant and Tilley (2019) find that the different mainstream party strategies presented by Meguid (2005) only work when a Green party is relatively new. When a Green party has survived a few elections, particularly the

accommodative strategy will boost the salience of environmentalism which can benefit the Green party if they are perceived as rightful issue owners.

Deriving from Meguid's (2005, 2007) argument that niche parties' electoral performance is affected by both major parties' strategies, I find it especially interesting to look at the strategies of the Social Democratic party toward the Greens as they are closer to them in the political landscape and therefore competing directly with them for votes. One example is Kitschelt's (1994, 164-167) observation of the strategic interaction between the German Social Democratic Party and the German Greens in the 1980s and 1990s. Based on the strategies of the Social Democrats the Greens were able to both steal a significant number of votes from the Social Democrats and later lose the voters back to the Social Democrats. The Social Democrats were able to win back voters by choosing a strategy that involved moving towards a left-libertarian agenda which meant that they moved closer to the Greens in the political space to eliminate them as an electoral threat. Mainstream parties like the Social Democrats are likely to highlight the environmental issue when they observe a public concern for the environment as it can help increase their vote share as well as decrease the electoral threat from the Greens (Spoon, Hobolt, and De Vries 2014, 374). The Green Party risks losing a significant number of potential Green voters when the Social Democratic Party can appeal to new politics voters (Poguntke 1993, 386). The findings from previous research on how mainstream party strategy can affect support for Green parties point in slightly different directions. The following hypothesis is based on Meguid's (2005, 2007) line of argument

H₆ When the Social Democratic Party use dismissive or accommodative strategies, support for the Green party decrease, and when the Social Democratic Party use adversarial strategies, support for the Green party increase

4. Method

Across Western European political landscapes over the past forty years, Green parties have succeeded electorally in some while struggling in others (Meguid 2007, 2). However, not much comparative research exists that tries to explain why some Green parties do well and others do not (Grant and Tilley 2019, 495-496). To analyze the hypotheses presented above I am conducting a comparative case study combined with multinomial logistic regression of survey data. In this chapter, I will present the choice of methods for my thesis, present the data and variables that are used, and discuss possible shortcomings related to validity and reliability. All variables are selected based on theory and previous research.

4.1 Comparative method

As mentioned, previous studies of Green Party support have mainly sought to explain why they succeed. Those few that attempt to address why some Green parties receive lower support explain it with them competing in plurality or majority electoral systems (Spoon 2009, Meguid 2007), countries with low GDP (Müller-Rommel 1998, Grant and Tilley 2019), and post-communist countries (Chaisty and Whitefield 2015, Grant and Tilley 2019). However, these studies fail to explain why some Green parties are successful while others are struggling in *similar* countries. In this paper, my goal is to contribute to this gap in the literature and help explain why Green parties experience various levels of support in Northwestern Europe. Therefore, I will use the comparative method in this paper which is a broad method that also can be thought of as a basic research strategy according to Arend Lijphart (1971, 683). He defines the comparative method as a

Method of testing hypothesized empirical relationships among variables on the basis of the same logic that guides the statistical method, but in which the cases are selected in such a way as to maximize the variance of the independent variables and to minimize the variance of the control variables

(Lijphart 1975, 164).

In this study, the cases were chosen based on one of the comparative research strategies 'most similar systems design'. The logic of the most similar systems design is to compare cases that are as similar as possible regarding key economic, cultural, and political features but differ in the phenomenon that is being examined. When analyzing similar cases, it minimizes the number of "experimental" variables by controlling for common systemic factors. Thus, the logic is that if there is a difference found between these similar countries, then the number of characteristics contributing to this difference will be small enough to explain in terms of those differences alone (Przeworski and Teune 1970, 32-33). Of course, this is the ideal type, no countries are similar in every aspect except one. However, theoretically driven, I argue that these countries are seemingly similar in several important ways. Key variables that can plausibly explain the variation in the dependent variable are found through the examination of relevant theory. Through the comparative method, it is possible to analyze hypothesized relationships between variables systematically and empirically where conclusions will be drawn from these comparisons (Keman and Pennings 2017, 51).

Common shortcomings of the comparative method are the ‘many variables, small N’ problem (Lijphart 1971, 686). To minimize this issue, one can slightly increase the number of cases included and limit the number of variables to only a few of key importance (Lijphart 1971, 686-690). In this study, the key variables are derived from theories that indicate which variables relate to what and how is this connection made (Waltz 1979, 12). Also, in line with Lijphart’s argument (1975, 163), I have included as many cases as I can within the timeframe of this project, and by choosing seemingly similar countries I have ensured that I have a substantial degree of control.

4.1.1 Comparing Norway, Denmark, Sweden, Finland, and Germany

In this paper, I am focusing on Green parties in different countries in Northwestern Europe: Norway, Denmark, Sweden, Finland, and Germany.¹ Even though these countries are institutionally, economically, and culturally similar, the support for their Green parties varies significantly. Green Party support is the dependent variable and is measured through their vote share in parliamentary elections. Vote results are gathered from national election databases. *Table 1* shows the variation in Green party support in these five cases from the 1980s until today. I have also included a column that shows the seats won in parliament in the last national election to illustrate the different degrees of influence these Green parties have.

Table 1. The electoral performance of Green parties in selected countries

		Average % vote at national elections			
	MPs ¹	1980s	1990s	2000s	2010s
Denmark	-	1.4	0.9	-	-
Finland	20	2.8	6.9	7.9	9.1
Germany	118	5.1	6.3	9.2	8.7
Norway	3	0.4	0.2	0.2	3.0
Sweden	16	2.9	4.3	5.7	6.2

Source: Álvarez-Rivera 2019, Politico 2022
¹Number of seats at the most recent election

From a theoretical standpoint, these five countries are similar in important ways. First, previous studies on variation in Green Party support have found that Green parties perform better in richer countries (Inglehart 1977, Müller-Rommel 1989, Grant and Tilley 2019). These selected Northwestern European countries have all experienced economic prosperity. Votes for Green parties are expected to be positively correlated with the high Gross domestic product (GDP) per capita because quality of life issues like the environment can only be salient when societies no longer just must focus on economic survival (Meguid 2007, 11). As the national economy gets stronger, the focus for voters shifts from “old” issues to “new” issues which allow the Green parties to succeed (Müller-Rommel 1998,

¹ All mentions of Germany before 1990 refer to West Germany.

151). A prolonged economic decline can affect Green Party support as it would almost immediately cause a change in value priorities, from postmaterialist values to materialist values (Knutsen 1990, 85). However, this is not always the case, interestingly, the first time the German Greens received a double-digit share of the vote with over 10 percent was right after the worldwide financial crash in 2008. The Green party continued to depend on environmental issues even though the German economy was in recession. Surprisingly, they mobilized a considerable number of voters despite a difficult political context (Rüdig 2012, 108-112). Generally, the level of post-materialism, i.e., valuing quality of life and self-expression over economic and physical security, is higher in richer countries measured by the level of GDP per capita (Inglehart 2008, 138).

Secondly, these countries share important political similarities. They are multiparty systems with proportional representation because, according to Inglehart (1984, 28), these electoral systems give greater viability to post-materialist parties. If there are several competing political parties there is a greater chance that the political system will adopt policies that reflect these new post-materialist values than if only two parties are competing (Inglehart 1977, 6). Furthermore, the party system shares similarities. In all five countries, the Social Democratic parties have historically been strong, and the party system has been dominated by the left-right dimension. However, the Social Democrats and the left-right cleavage have weakened. In the 1970s and 1980s, Green parties were established in all countries representing new politics values by competing on the environmental issue. Although, as we have seen, these Green parties have received various levels of support (Heidar 2004, 43-59, Padgett and Paterson 1991).

4.1.2 Data and variables

The data in this comparative part of the analysis is mostly gathered from the country's election studies, relevant statistics as well as previous studies on Green Party support. Based on these previous studies, three key variables that can explain variation in Green Party support have been chosen: the nuclear power issue, half-Green rivals, and Social Democratic Party strategy.

4.2 The statistical method

While the comparative method could be used when testing macro-level hypotheses, the comparative method should be combined with a statistical method when also testing micro-level hypotheses which focus on individual attributes (Lijphart 1971, 685). For Lijphart (1975, 164) these methods are closely related as they derive from the same logic when testing hypothesized empirical relationships among variables. Because theories explaining Green Party support usually apply both macro-level and micro-level explanations, I will test hypotheses linked to both levels in my analysis. Mainly, the multinomial logistic regression used in the statistical part of my analysis will most importantly provide supporting data on whether certain voters are more likely to vote for the Green Party above the New Left Party or the Social Democrats. In other words, one could see if there is likely voter migration between these parties or not. The analysis is in line with my second hypothesis regarding if the New Left Party is affecting the degree to which Green Parties can expand in the political space. Furthermore, the statistical analysis will provide a clearer picture of the Green Party voter in each country. The multinomial logistic regression is therefore binding the micro-and macro-level together. Also, to compare the effects of the

different independent variables between the countries a “student’s t-test” is conducted, where the t must be less than - 2 or larger than 2 to be significant at the 5% level. To do this test, the following formula will be used (Ringdal 2014):

$$D = b_2 - b_1 \quad S_d = \sqrt{S_1^2 + S_2^2} \quad t = \frac{D}{S_d}$$

4.2.1 Data

The data used to run the multinational logistic regression is from the European Social Survey Round 9 (ESS9) from 2018/2019 which is the latest data available. I chose the latest available data so the results can reflect the current political climate in the best possible way. The survey is largely based on questions about people’s attitudes to politics, society, and the economy as well as demographics and socioeconomics (ESS 2019). I am conducting the multinational logistic regression separately for each country. The data is weighted by the use of poststratification weight making the sample more representative so one can generalize to the entire population (Mehmetoglu and Jakobsen 2017, 331). All missing values have been removed from the variables included.

4.2.2 Dependent variables

I chose multinomial logistic regression because it allows me to have a categorical dependent variable where I can see the probability for an individual to vote for the Green Party compared to any other party. Furthermore, since my dependent variable is fairly skewed, multinomial logistic regression is ideal to use as it does not assume normality (Starkweather and Moske, unpublished manuscript, 2011). The dependent variable is based on the question: *which party did you vote for in the last national election?*, where the different categories are all political parties in each country while the reference outcome in my models is the individual Green Party for each country². By setting the Green Party as the reference, the remaining parties are measured against them. I will then be able to see how great the probability is for a person with certain qualities to vote for another party compared to the probability for the person to vote for the Green Party. From a theoretical standpoint, the results of the analysis will focus on two main parties of interest: the Left Party and the Social Democratic Party. They are the most interesting because they can potentially “steal” votes from the Green parties, so the aim is to analyze risks for voter migration between these parties. As mentioned earlier, it is especially the New Left parties that are competing directly with the Green parties over the “New Politics voter” (Müller-Rommel 1989, 17-18). However, the Social Democratic parties in each country will also be included. The Social Democratic parties have historically been strong in all five countries (Heidar 2004, 43, Padgett and Paterson 1991). They have been in direct competition with the Greens since they first emerged in the 1970s and 1980s. With the increasing salience of new issues such as the environment, the Social Democratic parties have tried to emphasize New Left issues while balancing economic issues that are important to their

² Denmark is excluded from the multinomial logistic regression because they do not currently have a Green Party. The Socialist People’s Party (SF) has nearly taken the place of the Green Party (Close and Delwit 2016, 244). However, I have chosen to not run SF as the Greens in my regression analysis to stay true to the Green Party definition previously presented.

traditional working-class electorate (Rennwald and Evans 2014). The Green Party risks losing a significant number of potential Green voters when the Social Democratic Party can appeal to new politics voters (Poguntke 1993, 386).

4.2.3 Independent variables

Age is a continuous variable that measures the age of the various respondents from 15 to 90 years old.

Higher education measures what the highest level of education respondents have completed. I have recoded it to a dichotomous variable where 1 is coded as "higher education", which is all levels of tertiary education, and 0 is coded as "lower education" which refers to primary and secondary education. Information on education levels was found in ESS9 Appendix A1 (ESS9 2020a).

Environmental protection is recoded from the ESS variable "impenv" where the respondents get brief descriptions of people that strongly believes that people should care for nature and that looking after the environment is important. The respondents then say how much each person is like or not like them. I have turned the values of the variable so that 1 = *not like me at all*, 2 = *not like me*, 3 = *a little like me*, 4 = *somewhat like me*, 5 = *like me* and 6 = *very much like me*.

Based on previous research the following variables are included as they also can affect Green Party voting compared to voting for other parties.

Woman is a dichotomous variable on the nominal level which measures gender that is recoded so that woman is coded as 1 and male is coded as 0. Green Party voters are usually overrepresented by women (Dolezal 2010, Rüdig 2012). According to Rüdig (2012, 115), this is largely due to the Green's continual representation of the interests of the feminist movement. Also, women are more prone to exhibit environmental concerns and strong opposition to nuclear power (see McStay and Dunlap 1983, Gwartney-Gibbs and Lach 1991).

Income group measures the household's total income. The respondents placed the household's annual income within one of ten given deciles, so I interpolated the variable so that each value is the median earning of each decile following the overview of income in ESS9 Appendix A2 (ESS9 2020b). I then categorized the variable into three income groups: "low income", "middle income" and "high income" because those that support Green parties usually have middle to higher income (Poguntke 1989). This can be linked to Inglehart's thesis of value change where economic security leads individuals to change value orientations from materialist values to postmaterialist values such as environmental protection. These values translate into the political arena where there is a conflict between environmental interests on one side and economic interests on the other (Inglehart 1971, 1977). Especially the Greens and Social Democrats are competing for the middle class where the Social Democrats must balance their economic positions with new issues such as environmental protection to secure New Left voters and at the same time not alienate the working class (Rennwald and Evans 2014).

Residence is recoded from the ESS variable "domicile" which captures the area where the respondents live. The variable has five categories: "city", "suburbs", "town", "country village" and "farm". Studies show that Green voters primarily live in urban areas. This is

linked to the fact that green movements were started in populated, industrial, and multicultural areas (Dolezal 2010, Birch 2009, Close and Delwit 2016).

Secular-Religious is recoded from the variable "rlgdgr" that measures how religious the respondent is. It ranges from 0 = *not at all religious* to 10 = *very religious*. Green Party support is linked to secularism where those with no religion are more likely to support Green parties (Dolezal 2010, Birch 2009). Oddbjørn Knutsen found that the Green parties and Socialist parties have the strongest support from individuals that are not affiliated with any religion while the Social Democratic parties have more variation in their support among those that are religious and those that are not (Knutsen 2004, 106-117).

4.3 Strengths and limits

Comparative small-N studies tend to have low external validity, meaning that the findings are not generalizable to cases that are not included in the research while having high internal validity, which means that the conclusions of the findings are correct for the cases that are included (Keman and Pennings 2017, 51). The aim of this research is not necessarily to generalize beyond the five cases included in my analysis but to explain why support for Green parties varies under certain historical, cultural, and social conditions in a country. This is especially the case in the comparative analysis part of the study, while the sampling method of ESS can make it possible to generalize the findings in this thesis to a larger population at the time the surveys were conducted in the cases I have included. Therefore, considering the comprehensive analytical framework of this thesis, the findings of this study may point to studies of Green parties in other countries.

5. Analysis

This chapter is divided into two main parts. First, I am analyzing key variables that can plausibly explain the variation in the dependent variable through the comparative method; nuclear power production, half-Green challenger parties, and the possible effect of Social Democratic strategy on support for Green Parties will be examined. Secondly, I will analyze the results of the multinomial logistic regression for each country. This regression will mainly work as support for the section about half-Green challengers as well as giving insight into who the Green Party voters are in each country.

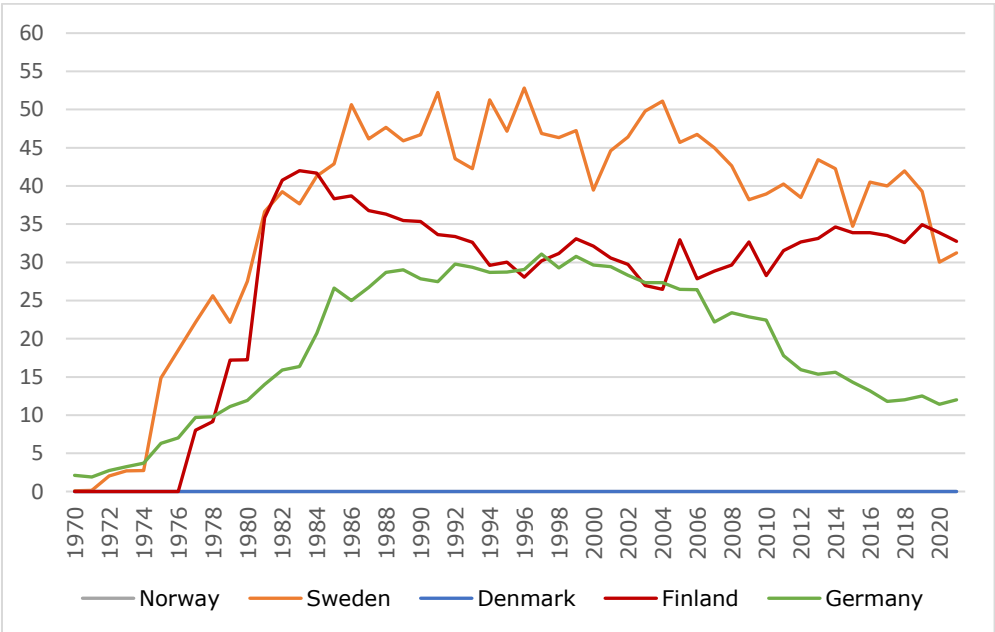
5.1 Key factors explaining variation in Green Party support

In this section, I am first analyzing the possible effect a conflict over the nuclear power issue can have on Green Party Support. Then, I am exploring the possible effects half-Green challengers can have on support for Green parties. Lastly, I will examine the thesis that links the strategies of the Social Democratic Party to how the Green Party performs electorally by using examples from two elections in each country.

5.1.1 Nuclear power

The conflict over nuclear power production has taken different paths in Germany, Sweden, Finland, Norway, and Denmark. To this day, the commitment to stopping nuclear power production remains one of the main goals in the Charter of the European Greens that the Green parties are devoted to (European Greens 2006). *Figure 3* illustrates the total percent of electricity production from nuclear power plants in the Nordic countries and Germany from 1970 to 2020. As the figure shows, Norway and Denmark never started any nuclear power production.

Figure 3. Electricity production from nuclear sources (% of total)



Source: figure made by author using numbers from the World Bank 2022 and Ritchie, Hannah and Max Roser 2021.

The conflict over nuclear power in Germany was one of the main reasons for the establishment of one of the most successful Green parties in the world (Jahn and Korolczuk 2012, 159). The anti-nuclear movement emerged in the late 1970s, and these activists later formed the German Greens whose main goal was to phase out nuclear power (Frankland 1989, 62-64, Wiliarty 2013, 284). Since the 1970s, nuclear energy production has been a source of political conflict in Germany and has been strongly debated amongst those that support and that oppose nuclear power (Jahn and Korolczuk 2012, 159). With their social movement background, the German Greens already had a network, and therefore a sizable number of potential voters. The Chernobyl accident in 1986 greatly affected support for the German Greens as it put nuclear power at the top of the political agenda. In the 1987 national election in Germany, raising concern about nuclear accidents increased the Green Party vote share by 2.7 percent from the previous election (see *Appendix 1*). The German Greens have actively participated on the anti-nuclear side of this conflict. *Figure 3* shows a decline in nuclear power production in Germany since the early 2000s around the time the Greens in coalition with the Social Democrats started planning a nuclear phase-out. In 2010, Chancellor Angela Merkel's ruling conservatives canceled the phase-out. However, following the Fukushima disaster in 2011, the Greens, backed by the strong German anti-nuclear movement and endorsed by widespread public support, were able to change the government's plan and eight reactors were immediately shut down (Wiliarty 2013, 282, Joly 2021). The results of this political conflict can be seen in the dramatic decline in electoral support for the government parties in the following local elections in 2011. German voters were not convinced by the ruling CDU government's inconsistency on nuclear power policy. Consequently, CDU lost the power of Baden-Württemberg after 58 years to the Greens which received the majority of votes and won their first post of minister-president (Jahn and Korolczuk 2012, 161-162). Opposition to nuclear power remains one of the key explanations for support for the German Greens (Rüdig 2012). At the time of writing, Germany has three operable reactors and has shut down a total of thirty reactors, and the plan is to shut down the rest by the end of 2022 (World Nuclear Association 2022). However, even though the nuclear power production is decreasing drastically, the Green party is still receiving strong support and had their best election yet in 2021 with almost 15 percent of the vote (see *Appendix 1*).

Similarly, anti-nuclear movements were also what sparked the formation of the Finnish Greens (Carter 2013, 79). One of the main goals of their program was that no new nuclear power plants should be built (Paastela 1989, 84). In the 1987 national election after the Chernobyl accident, the Greens' vote share increased by 2.5 percent from the previous election (see *Appendix 1*). The political conflict over nuclear power differs from the one in Germany. Interestingly, there has not been any debate about phasing out nuclear energy in Finland. Despite big nuclear accidents bringing debate and changes in Germany, nuclear power has continually received widespread support in Finland. Strikingly, even the environmental and anti-nuclear movements in Finland have not demanded a nuclear phase-out as they focus on just opposing the expansion of nuclear power (Hakkarainen and Fjaestad 2012, 238-242). There has been a strong tendency to depoliticize the nuclear power debate in Finland by the media and all parties except the Greens (Lounasmeri 2022, 4). One recent example is that the Fukushima accident occurred a month before the Finnish parliamentary election. Still, the future of nuclear power was not made a major electoral theme by any party, not even by the Greens. The Green Party did not argue for a phase-out but simply wanted no new nuclear power plants built throughout the next legislative period (Hakkarainen and Fjaestad 2012, 238-242). The news and public debate linked the Fukushima accident to Finland's nuclear power production, and the future of nuclear power

did not become a subject of debate as it did in Germany (Lounasmeri 2022, 9). *Appendix 1* shows that the 2011 election led to a decrease in vote share for the Greens from the previous election. The lack of politicization can be illustrated by the decision to build two more nuclear power plants shortly after the Fukushima disaster (Müller and Thurner 2017, 8). Nuclear power production is now strongly supported by the majority of people in Finland. In May 2022, the Finnish Greens held their party conference where they stated that the party's position on nuclear power is neutral and that they would be open to small nuclear reactors (Harju and Koskinen 2022).

The Swedish Green Party has a slightly different background than the Greens in Germany and Finland because they developed from a referendum campaign against nuclear power (Carter 2013, 79). Nuclear power production was heavily debated long before the Green Party was established and was already politicized in Sweden in the early 1970s. During that time, the Communist and the Centre Party represented the anti-nuclear opposition, the governing Social Democratic party was a pro-nuclear power (Kitschelt 1986, 77). Sweden has had a powerful pro-nuclear side with industry and trade unions at the forefront which were influential factions within the Social Democratic Party. The Social Democratic Party was later split in two with one stronger economic growth-oriented side and one weaker environmentally-oriented side (Kaijser and Meyer 2018, 90). However, the pro-nuclear side would soon have a new political opponent: the Swedish Greens. It all started with demonstrations held in 1976 and 1977 by people from both Sweden and Denmark against the construction of the Barsebäck nuclear complex (Kitschelt 1986, 71-72). The Barsebäck plant is located on the other side of the Öresund, the small strait between Sweden and Denmark, and can be seen from Copenhagen. Denmark, therefore, has a foreign nuclear facility remarkably close to its border. This was not popular with the Danish population and the Barsebäck plant has multiple times been named "the World's worst located nuclear power plant" (Kaijser and Meyer 2018, 71-72). The Barsebäck nuclear complex led to political conflict in Sweden, which further strengthened in the wake of the Three Mile Island accident in 1979. A referendum on the future of nuclear power was held in 1980 where the pro-nuclear side won. Disappointment in the results of the referendum led some of the members of the anti-nuclear movement to establish the Swedish Green party in 1981 (Kaijser and Meyer 2018, 85-86, Jahn 1993, 182). In the meantime, frustrations over the Barsebäck nuclear complex and opposition to nuclear power grew in Denmark, and the government postponed its plans of building nuclear power plants in fear of a referendum (Jamison et al. 1990, 98). However, the Barsebäck nuclear complex conflict did not lead to the formation of a Danish Green Party. In 1985 a majority in parliament agreed that nuclear power would no longer be a part of Danish energy planning (Kaijser and Meyer 2018, 87-88). The Danish Greens first made their national debut in the year after the Chernobyl accident with a disappointing 1.3 percent in 1987 (see *Appendix 1*).

As for Sweden, the Green Party increased its vote share by 4 percent in the 1988 national election following the Chernobyl disaster. After Chernobyl, the nuclear power issue was low on the public agenda in Sweden until the 2006 election when it had a slight upturn (Holmberg and Hedberg 2011, 5). This was due to the closing of the last reactor at the controversial Barsebäck nuclear power plant in 2005. The reactions to this in Sweden were divided, the environmental movement was pleased with the closure but supporters of nuclear power especially within the industry and trade unions were not pleased (Kaijser and Meyer 2018, 93). The politicization of the nuclear issue had a positive effect on support for the Swedish Greens in 2006 as their vote share increased by 0.6 percent from the last election. Sweden has a strong heritage from the anti-nuclear movement and the phase-

out referendum but right after the Fukushima accident, more people were supporting nuclear power according to opinion polls (Hakkarainen and Fjaestad 2012, 244). Since the recent energy crisis in Europe, support for nuclear power has reached new heights as a larger share of the public now supports building more nuclear power plants than just keeping existing ones (NTB-TT 2021). So, the Fukushima accident only highlighted how polarized the political debate on nuclear power production is (Hakkarainen and Fjaestad 2012, 244). After the Fukushima accident, support for the Green Party in Sweden decreased (see *Appendix 1*).

In Norway, the environmental issue rose on the public agenda in the 1970s with a debate on whether to start nuclear power production, though it was not the most important issue for the voters (Hesstvedt, Bergh, and Karlsen 2021, 280). The nuclear power issue was not politicized in the same way as it was in Sweden. In Sweden, the Social Democrats strongly positioned themselves on the pro-nuclear side creating a clear political conflict with the anti-nuclear parties. This did not happen in Norway (Pettersson and Valen 1979, 324). In Norway, politicizing the nuclear power issue was seen as costly by the political parties as they observed extensive public resistance against plans of building nuclear power plants for electricity production in the 1970s. Also, abundant access to the much cheaper and safer hydropower option ultimately made the Norwegian parties abandon the nuclear power planning altogether (Andersen 1980, 300-305). Following the Chernobyl accident, Norway had its first "environmental election" in 1989 where 35 percent of voters identified the environmental issue as one of the two most important issues in that election (Hesstvedt, Bergh, and Karlsen 2021, 280). However, as seen in *Appendix 1*, the Norwegian Greens only received 0.4 of the votes in 1989. Overall, there is no tangible political conflict over nuclear power in Norway.

5.1.2 Half-Green challengers

In Germany, there was no left party after the Communist party was banned and disappeared in the 1950s (Jahn 1993, 184). The emergence of new issues like environmental protection in the 1970s was represented by the Social Democratic Party (SPD) which also supported cultural liberalism and defended the welfare state. However, they moderated their position on these issues after the Green Party with a more left-libertarian profile emerged. The Green Party has now taken the previous placement of the SPD in the political space (Kriesi et al. 2006, 938-950). With no real half-Green parties, the German Green party filled a significant vacuum in the German party system by creating a distinct identity as both a left party and a green party. This has been important for the German Green's success as they could occupy the left political space and have a distinct environmental niche (Jahn 1993, 184-186). The Greens were able to steal voters from SPD by focusing on environmental issues that the SPD had previously ignored. These new issues were especially linked to nuclear power where the Greens advocated for phasing out nuclear power production and reducing nuclear weapons (Koelble 1991, 5). A study by Neundorf and Adams (2016, 391-397) shows that the German Greens have had clear ownership over the environmental issue since 1983. They have emphasized the environmental issues 50 percent more in their manifestos than any other mainstream party. In this way, the German Greens have been able to win a significant number of the environmental vote and become the most successful Green Party in Europe.

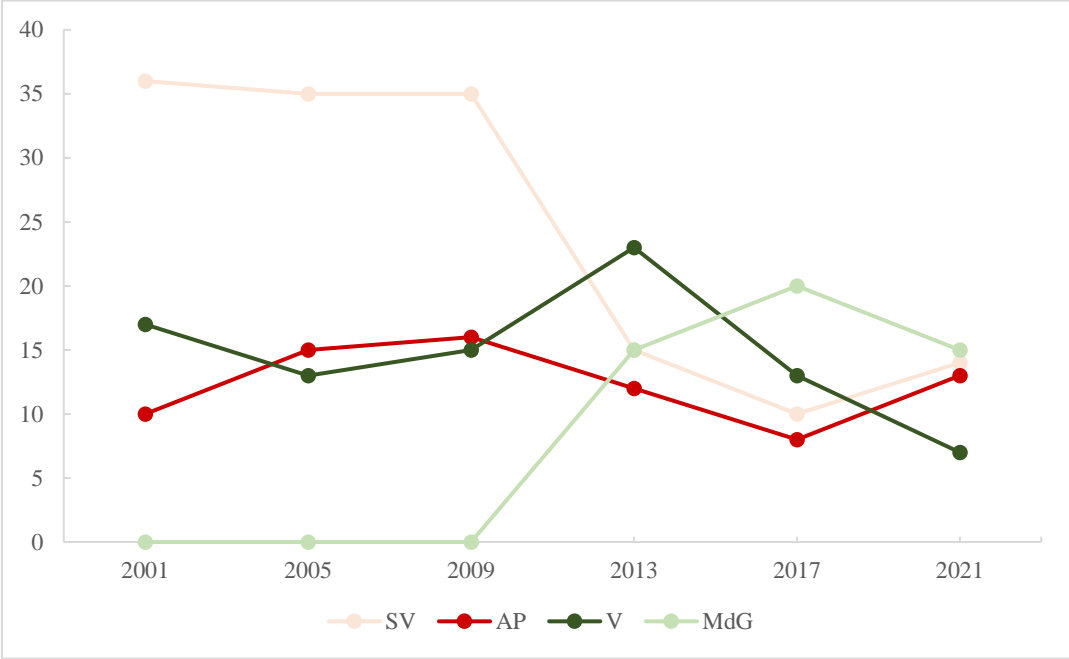
The New Left parties in the Nordic countries have different family backgrounds (Heidar 2004, 43). In Norway and Denmark, sizable New Left parties emerged in the 1960s and

1970s: The Socialist People's Party in Denmark and The Socialist People's Party in Norway (the predecessor to the Socialist Left Party in Norway established in 1975). As well as including the "Socialist" label in their names, they also hold a similar position in the party space as the Greens in other Western European countries (Oesch 2012, 36). Carter (2013, 86) found that both the Danish Socialist People's Party and the Norwegian Socialist Left Party scored the same on the environmental dimension as the Green Party score. Therefore, it has been a challenge for Greens in both Norway and Denmark to create an environmental niche between the Left and Social Democratic parties (Close and Delwit 2016, 245-246).

In Denmark, the New Left was formed much earlier than elsewhere as the Socialist People's Party (SF) was established in 1956 and joined both the parliament and a government coalition during the 1960s (Jamison et al. 1990, 69). By adopting postmaterialist policies early they secured voters with changing value orientations (Heidar 2004, 46). When the Green Party in Denmark was established in 1983, they were not even included on the ballot papers for the following national election because of insufficient support from voters. In the next national election in 1987, they only received 1,3 percent of the total vote and failed to gain parliamentary representation (Müller-Rommel 1989, 12). At this time, the conflict lines related to "old politics" were still dominating the political system, and positions in environmental policy have traditionally followed cleavage lines between parties on the right and left (Andersen 1988, 407-411). From 1994 to 2001, according to Togeby et al. (2003, 109), Danish voters were significantly less "green" in their attitudes. Consequently, most parties focused less on the environmental issue although the Social Democrats gained a "greener" profile in 2001. The Danish Greens never received enough votes to gain parliamentary representation, and in 2014 the party was dissolved. Interestingly, SF became a full member of the European Greens in 2014, standing out as the only Socialist Party (European Greens Statutes 2021, 24). SF has therefore succeeded in taking over the role of the Green Party in Denmark.

In Norway, both the Socialist Left Party and the Liberal Party are half-Green parties competing on relatively green agendas. The competition over the ownership of the environmental issue over the years can be seen in *figure 4*. Respondents were asked to give one party they perceived as owning the environmental issue. Here, the Socialist Left Party (SV) was from 2001 to 2009 perceived as the clear owner of climate and environmental policy with also the Liberal Party and Labor Party receiving some confidence in the issue from voters. However, the Green party scored zero and therefore failed to be perceived as the issue owner of their single-issue dimension. 2013 was a turning point where the Socialist Left Party had a dramatic decline in issue ownership and the Greens and the Socialists now scored the same on ownership over the environmental issue. In the 2017 election, the Greens were finally perceived as the environmental issue owner and the trend continues into the 2021 election, however, the Greens are only marginally above the Socialist Left Party and the Social Democrats. Once again, the Greens were unable to pass the electoral threshold, and numbers from the election study show that while the Greens only received 11 percent of the environmental vote, over 60 percent went to other half-green parties as well as the Social Democrats (Aardal and Bergh 2022, 8).

Figure 4 Climate and environment policy. Issue ownership among the four largest parties. Percentage of voters 2001-2021.



Source: figure made by author using Hesstvedt, Bergh and Karlsen 2021, 288, and Bergh, Hesstvedt and Karlsen 2022, 11.

In Sweden and Finland, the old Communist parties internally reformed and represent the New Left (Heidar 2004, 43). In Sweden, the Communist Party changed its position during the 1960s to appeal more to the New Left. They changed their name to the Communist Left Party until changing it to just the Left Party in 1990 (Christensen 1996, 527). The New Left Party in Sweden did advocate for the environmental issue in the 1970s, it was originally the Centre Party that was the strongest environmental advocate (Bolin 2016, 159). Voter’s assessment of parties’ environmental policies shows that the Centre Party was seen as having the best environmental policies before 1988 (Pederby 2020, 36). This is mostly due to their strong stance against nuclear power, however during their time in government in the late 1970s with the Social Democrats they compromised on the nuclear power issue. In the eyes of the electorate, this made the Centre Party less environmentally trustworthy. A referendum over the future of nuclear power led to much frustration and was ultimately lost by the antinuclear side which wanted an immediate shutdown of nuclear power production. As no party had a strong position for the electorate on the environmental issue it opened space for the Green Party (Bolin 2016, 159). The Green party in Sweden was the first new party to enter parliament in 70 years, representing the rise of new politics and the unfreezing of the party system (Jahn 1993, 182). The Swedish Green Party quickly took over the ownership of the environmental issue from their first big election win in 1988. Swedish election surveys show that the Greens continued to have clear ownership of the environment issue from 1988 to 2014 with scores well above any other party. The exception is the last election in 2018, where voters felt that the Centre Party had marginally better environmental policies than the Green Party. The Left Party in Sweden scores low on issue ownership over the environment and is not even close to challenging the Green Party on their issue (Pederby 2020, 36-38). Similarly, in Finland, the Left was originally mobilized by the Communist Party which historically had been a powerful force in Finnish

politics. However, internal conflict between reformists and revolutionaries contributed to a significant decline of communism in the 1980s. Around 1980, the Finnish Left failed to renew themselves and compete for the new politics voter, while the Greens successfully mobilized the new social movements. In the 1990s, the Left Party in Finland made policy changes that were similar to other Nordic New Left parties and adopted a greener program. However, their main electorate was still the old traditional working class, and they were still struggling to win over the young, well-educated, and urban new politics voter. Thus, the Finnish Green Party was left as the issue owner of the environmental issue as well as postmaterialist issues in general (Zilliacus 2001, 30-32).

5.1.3 Social Democratic strategy toward the Green Parties

In this section, I am analyzing the strategic interaction between the Social Democratic Party and the Green Party in Germany, Norway, Sweden, and Finland in the first election they gained parliamentary representation, and in the most recent election. I have therefore excluded Denmark since they never gained parliamentary representation and no longer exist.

In the German 1983 election, the Social Democratic Party used an accommodative strategy as they ran on environmental issues instead of economic growth. Their strategy was partly successful as they managed to limit the number of voters that moved to the Greens. However, they did not keep the Greens from gaining parliamentary representation (Kitschelt 1994, 165). The Social Democratic Party strategy might not have been consistent enough for green voters as they had before the election also shared the CDU/CSU's and the FDP's commitment to the use of nuclear power to guarantee future prosperity (Frankland 1989, 63-64).

As for the German 2021 election, deadly floods before the election put climate change and the environment at the top of the political agenda. The Social Democrats' strategy during the election was to appear greener than the Conservatives. The SPD, therefore, included a range of promises to combat climate change, however, their policies were significantly more moderate than those of the Green Party (Sugue, Zimmermann, and Posaner 2021). Their more moderate stance on climate change led them to lose voters to the Greens. One can observe significant voter migration between the two parties, where 960.000 of those that voted for the Social Democrats in 2017 voted for the Greens in 2021, and at the same time, the Greens ended up losing 700.000 of their 2017 voters to the Social Democrats (Tagesschau 2021). Thus, the accommodative strategy of the Social Democrats seems to not have been effective enough against the Greens as they stole more voters from them and ended up with their best election results ever (see *Appendix 1*).

The Greens in Norway differ from the others in that they did not gain parliamentary representation before 2013. According to Karlsen (2015, 36) and Aardal (2015, 69), there was no green wave before the election as the importance of the environmental issue to the electorate decreased from the last election. During the election, issues such as healthcare and school policy were especially important, while the environmental issue was tied for fourth together with taxes (Aardal and Bergh 2015, 17, Karlsen 2015, 36). The Social Democratic Party did not focus on the environment as they instead focused on their own issues namely healthcare and school policies (Johnsen and Peters 2013). One can observe a decrease in the Social Democratic Party's environmental issue ownership from the 2009

election to the 2013 election (Karlsen 2015, 39). Also, by ignoring the environmental issue they ended up losing some voters to the Greens (Aardal and Bergh 2015, 25). Even though this was not an environment election, the Greens were able to increase their issue ownership of environmentalism from 0 percent of voters perceiving the Greens as the most competent at handling the environmental issue, to 15 percent believing they were in 2013 (Karlsen 2015, 39). Still, the Greens received only 2.8 percent of the vote share (Aardal and Bergh 2015, 14).

In the 2021 election, the environmental issue was at the top of the political agenda. Data from the new Election Survey show that 30 percent stated this as an important issue for their voting, well above the taxes and fees issue at second place with 18 percent. The environment/climate issue has not been observed so highly on the voters' agenda since the environmental election in 1989 (Bergh, Hesstvedt and Karlsen 2022, 6). This time, the Social Democratic Party opted for an accommodative strategy as they adopted moderate environmental policies while still supporting oil exploration and production (Peltier 2021, Barry 2021). Successfully they were able to win significantly more climate votes than the Greens. The Green Party once again miss the 4 percent threshold but did gain two seats (Aardal and Bergh 2022, 7-8).

The 1988 election in Sweden was the first election the Greens participated in where the environmental issue was at the top of the political agenda (Sainsbury 1989, 140). Attention to the environmental issue had heightened after the Chernobyl disaster in 1986 (Green-Pedersen 2019, 129). In the previous two elections, economic troubles put left-right issues like social reforms and full employment at the forefront while all other issues were ignored by the mainstream parties. However, before the 1988 election, the Social Democrats chose an accommodative strategy where they adopted a greener profile and campaigned on environmental issues. The Greens for the first time gained parliamentary representation by receiving 5.5 percent of the vote. But their debut did not seem to threaten the Social Democrats as they were the strongest party coming out of the election (Sainsbury 1989, 140-141).

In the 2018 election, the Swedish Greens struggled to get their environmental issue on the political agenda. Even though the environmental issue was important to 18 percent of voters in the 2018 election, this was not a "climate election" as other issues, like healthcare, immigration, and education was higher on the political agenda (Valforskningsprogrammet 2020). The Social Democrats' strategy during the election was to promote a considerably more restrictive policy on immigration, integration, and law and order. Thus, their stance was opposing the Green Party's very liberal immigration policy (Bolin and Aylott 2019, 569-571). In the second part of their strategy, the Social Democrats turned the political debate to their home ground, namely social welfare (Aylott and Bolin 2019, 1507). Their strategy was successful as the Greens ended up losing one-fourth of their support to the Social Democrats. The Greens only received 4,4 percent of the vote, which was the party's worst result since 1991 (Bolin and Aylott 2019, 572).

In the wake of the Chernobyl nuclear accident in 1986, nuclear energy and environmental protection rose to the top of the political agenda during the 1987 election in Finland. However, the governing Social Democratic party mostly focused on issues related to social welfare and employment (Berglund 1987, 271). Nevertheless, the Social Democrats did appear greener to the voters than before, and their decision to not build a fifth nuclear power plant deprived the Greens of a trump card (Arter 1987, 175). The Greens did gain

parliamentary representation, but they received fewer votes than predicted before election day (Berglund 1987, 272).

In the 2019 national election, the Finnish Greens had their best election yet by increasing its vote share by 3 percent and winning 11.5 percent of the vote. Whereas the economy dominated the 2015 election, climate change and environmental concerns rose to the top of the issue agenda in 2019. During the election, the Social Democrats surprisingly did not focus on their main issues, but rather took an active role in the debate on climate change and argued for the need for stronger measures to tackle climate change. The debate was extremely polarized with opposing parties playing down the threat of climate change put forward by the Greens, Social Democrats, and the Left. The Social Democrats only marginally won the election, likely losing voters to the Greens as the Social Democrats struggled to renew their supporter base (Raunio 2020, 350-351, Borg 2019, 190).

5.2 Analyzing party preference in Norway, Sweden, Finland, and Germany

I will here present the results of the multinomial logistic regression and analyze the results. Those effects that are not significant within the 5 percent level will not be discussed. Following my hypotheses, I will mainly focus on the possible effect age, higher education, and environmental protection have on support for the Green Party compared to the New Left Party and the Social Democratic Party.

5.2.1 New Left Party

The point of this analysis is to examine which factors cause voter preference for the New Left party over the Green Party. Also, it is interesting to see if certain factors are a source of voter migration between these two rival parties. The result of the analysis is shown in *table 2*.

Table 2. Multinational logistic regression of votes for the New Left Party compared to the Green Party in Norway, Sweden, Finland, and Germany.

	Green Party (= 0)			Sosialistisk Venstreparti (Norway)			Vänsterpartiet (Sweden)			Vasemmistoliitto (Finland)			Die Linke (Germany)			
	B	Seb	RRR	Sig.	B	Seb	RRR	Sig.	B	Seb	RRR	Sig.	B	Seb	RRR	Sig.
Age	0.019	0.014	1.019	0.180	-0.009	0.009	0.991	0.325	0.023	0.008	1.023	0.007	0.001	0.008	1.000	0.959
Woman (reference: male)	0.620	0.403	1.860	0.124	-0.284	0.354	0.753	0.423	-0.587	0.273	0.556	0.032	-0.784	0.280	0.457	0.005
Higher education (reference: lower education)	-0.001	0.003	0.999	0.780	-1.131	0.356	0.323	0.001	-0.582	0.288	0.559	0.043	-0.403	0.284	0.670	0.156
Income group (reference: low income)																
Middle income	0.243	0.616	1.280	0.693	0.387	0.480	1.473	0.420	-0.309	0.370	0.734	0.402	-0.467	0.470	0.630	0.321
High income	-0.160	0.584	0.852	0.784	-0.375	0.461	0.688	0.417	-0.703	0.381	0.495	0.065	0.994	0.464	0.370	0.032
Residence (reference: city)																
Suburbs	0.260	0.690	1.296	0.707	-0.196	0.454	0.823	0.665	-0.237	0.462	0.789	0.607	0.128	0.421	1.136	0.761
Town	-0.332	0.608	0.717	0.585	-0.545	0.450	0.580	0.225	0.231	0.319	1.260	0.469	-0.559	0.370	0.572	0.131
Country village	0.182	0.750	1.110	0.808	-0.608	0.558	0.544	0.276	0.250	0.424	1.284	0.556	-0.349	0.390	0.705	0.371
Farm	-0.594	0.690	0.552	0.390	0.703	0.684	2.021	0.304	1.461	0.471	4.311	0.002	-13.873	0.629	9.444	0.000
Secular-Religious	0.011	0.690	1.011	0.906	-0.037	0.059	0.537	0.537	0.007	0.050	1.007	0.886	-0.095	0.052	0.909	0.064
Envir. Protection	-0.243	0.373	0.784	0.514	-0.834	0.210	0.434	0.000	-0.850	0.179	0.428	0.000	-0.806	0.196	0.450	0.000
(N)=	1.007				1.214				1.161				1.407			
Pseudo R2	0.1232				0.0933				0.1372				0.0793			

Environmental protection has a strong significant negative effect in Sweden, Finland, and Germany with a p-value of 0.000. The likelihood of voting for the New Left Party instead of the Green Party is lowest in Finland where the likelihood decreases by 57.2% for each level increase on the environmental attitude scale, followed by Sweden where the likelihood decreases by 56.6%, while in Germany the likelihood decreases by 55%. This can be interpreted as the higher a person values environmental protection the less likely they are to vote for the New Left Party than the Greens in these three countries. T-tests are used to compare the effect of environmental protection between the three countries. Since the significant level is under 1% of the countries the null hypothesis should be rejected between -2.58 and 2.58. All t-values exceeded this range which means that the difference in effects between the countries is significant. Therefore, the effect of environmental protection on Green Party voting is stronger in Finland than in Sweden and Germany. Overall, the findings show those supporting environmental protection prefer the Green Party over the New Left Party in these three countries.

Age is only significant in Finland, and the effect is positive. The likelihood of voting for the New Left Party instead of the Green Party increases by 2.3% each year.

Higher education has a negative significant effect in Sweden and Finland, the former at the 1% level and the latter at the 5% level. In Sweden, having completed any form of higher education reduces the likelihood of voting for the New Left Party rather than voting for the Green Party by 67.7%, while in Finland the likelihood decreases by 44.1%. This means that those that have completed higher education in both these countries are likely to vote for the Green Party instead of the New Left in these two countries. According to my t-test, there is a significant difference between them, where the effect of higher education is stronger in Sweden than in Finland on voting for the Green Party instead of the New Left.

Furthermore, being a woman decreases the likelihood of voting for the New Left Party rather than the Green Party in Finland by 44.4% and by 54.3% in Germany.

Interestingly, none of the variables in the analysis presented in *Table 2* has a significant effect on voting for the New Left Party rather than the Green Party in Norway. This could indicate that they share similar voters and that there is possible voter migration between the two parties.

5.2.2 Social Democratic Party

This analysis aims to analyze which factors lead voters to choose the Social Democratic Party rather than the Green Party. The results are shown in *Table 3*.

Table 3. Multinational logistic regression of votes for the Social Democratic Party compared to the Green Party in Norway, Sweden, Finland, and Germany

	Green Party (= 0)				Arbeiderpartiet (Norway)				Socialdemokraterna (Sweden)				Sosiaalidemokratit (Finland)				Sozialdemokratische Partei (Germany)			
	B	Seb	RRR	Sig.	B	Seb	RRR	Sig.	B	Seb	RRR	Sig.	B	Seb	RRR	Sig.	B	Seb	RRR	Sig.
Age	0.040	0.013	1.041	0.002	0.022	0.009	1.022	0.010	0.041	0.007	1.041	0.000	0.021	0.006	1.022	0.000				
Woman (reference: male)	-0.539	0.361	0.583	0.135	-0.136	0.316	0.873	0.667	-0.688	0.209	0.503	0.001	-0.660	0.194	0.517	0.001				
Higher education (reference: lower education)	-0.001	0.003	0.998	0.619	-1.710	0.321	0.181	0.000	-0.608	0.231	0.545	0.008	-0.407	0.199	0.666	0.041				
Income group (reference: low income)																				
Middle income	0.522	0.602	1.690	0.386	0.270	0.450	1.304	0.555	0.305	0.312	1.356	0.330	0.088	0.383	1.092	0.819				
High income	0.370	0.570	1.444	0.517	0.460	0.426	1.584	0.280	0.287	0.317	1.333	0.364	-0.538	0.375	0.584	0.151				
Residence (reference: city)																				
Suburbs	0.172	0.665	1.873	0.796	0.199	0.415	1.221	0.631	0.493	0.324	1.637	0.128	0.776	0.343	2.172	0.024				
Town	-0.171	0.553	0.843	0.757	0.406	0.404	1.501	0.316	0.322	0.237	1.380	0.173	0.352	0.295	1.422	0.233				
Country village	-0.097	0.698	0.907	0.889	0.503	0.492	1.654	0.306	0.156	0.336	1.169	0.642	0.654	0.315	1.923	0.038				
Farm	-0.492	0.617	0.612	0.425	0.924	0.643	2.519	0.151	1.083	0.422	2.955	0.010	0.026	0.663	1.030	0.969				
Secular-Religious	0.178	0.088	1.195	0.043	0.059	0.051	1.061	0.241	0.085	0.0367	1.089	0.020	0.083	0.325	1.087	0.011				
Envir. Protection	-1.041	0.349	0.353	0.003	-0.998	0.189	0.368	0.000	-0.729	0.154	0.483	0.000	-0.655	0.159	0.519	0.000				
(N)=	1.007				1.214				1.161				1.407							
Pseudo R2	0.1232				0.0933				0.1372				0.0793							

Environmental protection has a strong significant negative effect within the 1% level in each country. This indicates that the likelihood of voting for the Social Democratic Party instead of the Green Party decreases the higher someone values environmental protection. In Norway, the likelihood decreases by 64.7%, in Sweden by 63.2%, in Finland by 51.7%, and in Germany by 48.1%. The results of the t-tests show that the difference between the countries is significant. For example, the t-value between Norway and Sweden is -5.1, which means that the different effects of environmental protection on voting for the Green Party instead of the Social Democrats in these two countries are significant, and the effect is stronger in Norway than in Sweden.

Age is also significant in all four countries within the 1% level, and the effect is positive. This means that the older a person gets, the more likely they are to vote for the Social Democratic Party rather than the Green Party. In Norway, the likelihood of voting for the Social Democratic Party instead of the Green Party increases by 4.1% each year, in Sweden the likelihood increases by 2.2% each year, in Finland the likelihood increases by 4.1% and in Germany the likelihood increases by 2.2%.

Higher education has a significant negative effect within the 1% level in Sweden and Finland and at the 5% level in Germany. This indicates that those that have completed any form of higher education are less likely to vote for the Social democratic party rather than voting for the Green Party. In Sweden, higher education decreases the likelihood of voting for the Social Democratic Party instead of the Green Party by 81.7%, in Finland the likelihood decreases by 45.5%, and lastly, in Germany, the likelihood decreases by 33.4%. The t-tests show that the different effects are significant between the countries, where higher education has a stronger effect on voting for the Greens rather than the Social Democrats in Sweden than in Finland and Germany.

Regarding the other variables included, there are especially two that stand out. First, being a woman decreases the likelihood of voting for the Social Democratic Party rather than the Green Party in both Finland and Germany by almost 50%. Secondly, for each level increase on the secular-religious scale, the likelihood of voting for the Social Democrats over the Greens increases by 19.5% in Norway, 8.9% in Finland, and 8.7% in Germany.

6. Discussion

The findings in the analysis indicate that there are key differences between Norway, Denmark, Sweden, Finland, and Germany that help explain the variation in support for Green parties in these five countries. The results are summarized in *Table 4*.

Table 4. Hypothesis table

	Norway	Denmark	Sweden	Finland	Germany
<i>H₁ The greater the support for environmental protection the higher likelihood is for an individual to vote for the Green Party</i>	NL ¹ : no SD ² : yes	-	NL: yes SD: yes	NL: yes SD: yes	NL: yes SD: yes
<i>H₂ Younger voters are more likely to vote for the Green Party</i>	NL: no SD: yes	-	NL: no SD: yes	NL: yes SD: yes	NL: no SD: yes
<i>H₃ The likelihood of voting for the Green Party increases when the individual has completed higher education.</i>	NL: no SD: no	-	NL: yes SD: yes	NL: yes SD: yes	NL: no SD: yes
<i>H₄ The presence of a substantial conflict over nuclear power production in a country has a positive effect on Green Party support</i>	no	no	no	no	yes
<i>H₅ The competition from rival half-Green parties decreases the degree to which Green Parties can expand in the political space.</i>	yes	yes	no	no	no
<i>H₆ When the Social Democratic Party use dismissive or accommodative strategies, support for the Green party decrease, and when the Social Democratic Party use adversarial strategies, support for the Green party increase</i>	no	-	1988: no 2018: yes	no	no

¹ Refers to the New Left Party in each country

² Refers to the Social Democratic Party in each country

The presence of a substantial conflict over nuclear power on support for the Green Party particularly has a strong effect in Germany. The German Greens were established by activists from the anti-nuclear movement (Frankland 1989, 62-64). Arguably, their social movement background left them with organizational capability, a wide network, and a significant number of potential voters, which gave them the ability to grow. Over the years, the debate over nuclear power production has been very polarized with the Greens taking a clear anti-nuclear stance. Green Party support increased when the nuclear power issue rose on the political agenda, and they particularly experienced increased support after the Chernobyl- and Fukushima accidents. Opposition to nuclear power has remained one of the key explanations for support for the Green Party in Germany (Rüdig 2012). Though, this conflict over nuclear power might be ending as the plan is to shut down the rest of the nuclear reactors by the end of 2022 (World Nuclear Association 2022). The Green parties in both Sweden and Finland were also started because of a conflict over nuclear power in each country. Furthermore, the Chernobyl accident put the nuclear power issue high on the political agenda which led to increasing support for the Swedish Greens and the Finnish Greens. After this, however, Sweden and Finland both have a similar development in that the support for nuclear power has shifted in the public, and a majority of people now support nuclear power production in both countries. In Finland, the tendency for the media and the majority of the political parties to depoliticize the nuclear power issue had made it difficult for the Greens to put the issue on the political agenda (Lounasmeri 2022, 4). Although, the Finnish Greens have not taken a strong position for a complete nuclear phase-out, in 2022 they have taken a neutral stance on the issue altogether (Harju and Koskinen 2022). In Sweden, the political debate on nuclear power production has been very polarized, with the Green Party clearly against it. The first time the nuclear power issue again rose on the political agenda after Chernobyl, support for the Green Party slightly increased. After the Fukushima accident, because of the major public support for nuclear power production, the Green Party experienced decreasing support. Therefore, the presence of a substantial nuclear power conflict did not only lead to increasing support for the Greens, but it also had the opposite effect (Hakkarainen and Fjaestad 2012, 244). In Norway and Denmark, it was decided in the 1970s and early 1980s that they would not be building nuclear power plants for electricity production (Kaijser and Meyer 2018, 87-88, Hesstvedt, Bergh, and Karlsen 2021, 280). Both countries have access to much safer and cheaper options for power production. The Green parties in these countries did not stem from anti-nuclear movements. Since the debate on and building of nuclear power plants ended early on, the Chernobyl accident did not have the same effect in Norway and Denmark as it had in the other three countries, which is seen by the Green Party's poor electoral performance.

When it comes to how the competition from rival parties with partly Green agendas can affect support for Green parties, the findings are meeting the expectation. In Norway and Denmark, New Left parties emerged in the 1960s and 1970s and held a strong position for environmental protection. Carter (2013) later found that the two New Left parties scored the same on the environmental dimension as the Green Party score. This left the Green parties in Norway and Denmark with smaller room for creating an environmental niche and therefore struggled to gain votes on their single-issue dimension. In Norway, the competition for ownership over the environmental issue was not only between the Green Party and the New Left but also the Liberal Party can be seen as a half-Green rival. Until 2013, only these half-Green rivals received confidence on the environmental issue from the voters (Hesstvedt, Bergh and Karlsen 2021, 288). By 2021, there is not one party that can be perceived as the clear issue owner. By competing on the environmental protection

issue early on, the other half-Green rivals have been able to decrease the opportunity for the Green Party to grow. Furthermore, in the 2021 election the Greens only received 11 percent of the environmental vote, while over 60 percent went to other half-green parties as well as the Social Democrats (Aardal and Bergh 2022, 8). In line with Rabinowitz and Macdonald's (1989) directional theory, I argue that the lack of and decreasing issue ownership of the environment for the Norwegian Green Party, as well as their poor electoral performance, may be because of voters perceive them as too extreme. The result is that they are punished electorally, and voters supporting environmental protection will therefore rather vote for the half-Green challenger that give the most emotionally intense arguments within the region of acceptability. Until the Norwegian Green Party slightly moderate their appeal, they will likely lose potential voters to their rival half-Green challengers. Similarly, in Denmark, the New Left Party succeeded in taking over the role of the country's Green Party by becoming a full member of the European Greens in 2014 (European Greens Statutes 2021, 24). While, in Germany, Finland, and Sweden, there has not existed a strong half-Green party that could challenge the degree to which Green Parties can expand in the political space. The Green parties in these countries were, therefore, able to create a distinct environmental niche, and they succeeded in being perceived as the owner of the environmental issue by voters in all three countries.

The effect of strategies used by the Social Democratic Party on support for Green Parties does not have a significant effect in three of the countries. In only one election can one observe an effect: in the Swedish national election of 2018. The dismissive strategy of the Social Democrats towards the Greens may have decreased their vote loss. Overall, however, there is no significant effect. To illustrate this, Norway is used as the main example here since the Social Democrats used both dismissive- and accommodative tactics toward the Green Party. In 2013, the dismissive tactic did not prevent the Greens from gaining some votes, however, by only receiving 2.8% of the votes, it could be argued that the Social Democratic Party was able to weaken the Greens to some extent. The Social Democratic Party made the election about healthcare and school policy, while the environmental issue was driven down on the political agenda. Although, the dismissive tactic of the Social Democrats did not lead to a decrease in the votes for the Green Party so hypothesis 6 cannot be accepted. Furthermore, as the environmental issue became increasingly important for the electorate, the Social Democrats opted for an accommodative strategy in the 2021 national election. By aiming to appear Greener to voters, while also supporting oil exploration and production (Peltier 2021, Barry 2021), the Social Democrats were still not able to decrease the vote share for the Greens through their accommodative strategy either. These findings are in line with previous research by Carter (2013) and Grant and Tilley (2019). When testing mainstream party strategy toward the Green Parties they have observed the opposite of what Meguid (2007) predicted, the support for the Green Party increases when the major mainstream party uses the accommodative strategy which Grant and Tilley explain by the age of the Green Party. It is difficult for the mainstream parties to challenge the environmental niche of the Green Party after they have survived a few elections.

Lastly, the individual indicators help paint a clearer picture of the Green voter in each country, and the different effects environmental protection attitudes, age, and higher education have between the countries. The most interesting finding is that environmental protection strongly affects choosing the Green Party above the New Left Party in Finland, Sweden, and Germany. This same effect cannot be found in Norway which may indicate how voters perceive the Norwegian Green Party and the New Left Party both as viable green alternatives. This suggests that one will find voter migration between these two rival

parties in Norway. Another interesting result shows that environmental protection has stronger effects voting for the Green Party instead of the Social Democrats in Norway than in Sweden. One explanation may be that the Social Democrats dismissed the environmental issue and mainly focused on immigration and welfare towards the 2018 election, around the time the survey was conducted. This ultimately affected their issue ownership as the Centre Party was by a small margin seen as the owner of the environmental issue (Pederby 2020, 36-38). In Norway, the Green Party experienced dramatic development in 2017 by finally being seen as the most competent at handling the environmental issue. At the same time, the Social Democratic Party experienced a decrease in the share of the electorate that saw them as the owner of the environmental issue (Hesstvedt, Bergh and Karlsen 2021, 288). Furthermore, increasing levels of education have been linked to the rise of post-material values (Inglehart 1971, 1977 6-10), and have continuously predicted support for Green parties (Poguntke 1989, Müller-Rommel 1998, Dolezal 2010, Grant and Tilley 2019). The share of adults that have completed some form of higher education is highest in Finland, closely followed by Norway and Sweden. The results of the multinomial regression show that higher education predicts Green Party voting. Completing higher education has the strongest effect on voting for the Greens rather than the New Left Party or the Social Democratic Party in Sweden than in Finland and Germany. When analyzing the effects of age on support for the Green Party rather than the New Left Party the effect is only significant in Finland, this may be an indication of how "new politics" is about to become old. Younger voters are however still more likely to vote for the Green Party than the Social Democratic Party.

7. Conclusion

Not much comparative research exists that tries to explain why some Green parties do well and others do not (Grant and Tilley 2019, 495-496). Key findings from previous research suggested that Green parties perform better in wealthier countries with higher levels of post-materialism and in countries with multiparty proportional electoral systems (Inglehart 1977, Inglehart 1984, Müller-Rommel 1989, Müller-Rommel 1998, and Grant and Tilley 2019). However this does not explain why Green parties have performed so differently in seemingly similar countries. The Green parties in Germany, Finland and Sweden have all long legislative experience and have regularly been government coalition partners. Increasing salience of the climate and environmental issue led the Greens in Germany and Finland to gain significant support resulting in their best electoral performance yet (Politico 2022, Palonen 2020, 131-132). On the other hand, the situation for the Green parties in Norway and Denmark have been dramatically different. In Denmark, the Green Party never gained more than 1.4 percent and was dissolved in 2014. The Danish New Left Party have completely taken over the role as the Green Party in Danish politics and have also become a member of the European Greens (European Greens Statutes 2021, 24). In Norway, the Green Party have received low support over time, and were once again unable to pass the electoral threshold in the 2021 national election even though climate and environment were the most important issue for voters (Bergh, Hesstvedt and Karlsen 2022, 6). Therefore, this thesis aimed to answer the following research question

Why has support for Green parties varied between Northwestern European countries?

The results of this thesis show that competition from a rival half-Green Party significantly decreases the degree to which Green Parties can expand in the political space and create an environmental niche. This effect is observed in both Norway and Denmark. In Norway, these findings are confirmed by the multinomial regression where environmental protection did not have a significant effect on voter choice between the New Left and the Green Party in Norway. The future of the Norwegian Greens is now more open as there are no clear issue owner of the environment at the moment (Bergh, Hesstvedt and Karlsen 2022, 11.) As the environmental vote is split between multiple parties, the future of the Norwegian Greens depends on moderating their appeal and working on being perceived as the most competent at handling the environmental issue. In Germany, Finland and Sweden where there are no half-Green challengers, the Greens were able to expand and create an environmental niche. In this way, they were able to secure the environmental vote. Also, neither the Norwegian nor Danish Green Party was established based on a substantial conflict over nuclear power production like the German Greens were. However, the nuclear power issue has had varying effect in both Sweden and Finland. One common factor is that the German, Finnish and Swedish Greens all derived from a strong social movement that may have contributed to stronger organizational resources and a network of potential supporters. The Norwegian and Danish Greens did not have the same background.

My findings contribute to a better understanding of why the electoral performance of Green parties has significantly varied in Northwestern Europe. Since not much comparative research has been conducted to explain why some Green parties do well and others struggle, I am providing an explanation that can point to Green parties in other countries. Especially by using seemingly similar countries in Northwestern Europe, I have eliminated previously applied explanations linked to a country's level of post-materialism, wealth, and electoral system. Also, my findings point to additional avenues of research. As mainstream party strategies have little effect on the electoral performance of Green parties, one should

turn the attention to the Green Party's own strategic possibilities and if they can determine their fortune. Furthermore, future research could include more cases. As the same pattern of varying support for Greens parties can be observed in other West European countries, future research could do a more comprehensive study that includes more cases. This would give a broader understanding of why Green parties have experienced such varying electoral support the past forty years.

References

- Aardal, Bernt. 2015. «Offentlig opinion – folkets vilje eller tilfeldige ytringer?» I *Valg og velgere. En studie av stortingsvalget 2013*, edited by Bernt Aardal and Johannes Bergh, 49-74. Oslo: Cappelen Damm Akademisk.
- Aardal, Bernt and Johannes Bergh. 2015. «Systemskifte – fra rødgrønt til blåblått.» I *Valg og velgere. En studie av stortingsvalget 2013*, edited by Bernt Aardal and Johannes Bergh, 11-33. Oslo: Cappelen Damm Akademisk.
- Aardal, Bernt and Johannes Bergh. 2022. "The 2021 Norwegian election." *West European Politics*: 1-13. 10.1080/01402382.2022.2062136
- Abou-Chadi, Tarik. 2014. "Niche Party Success and Mainstream Party Policy Shifts – How Green and Radical Right Parties Differ in Their Impact." *British Journal of Political Science* 46: 417-436. 10.1017/S0007123414000155
- Adams, James, Lawrence Ezrow, and Debra Leiter. 2012. "Partisan Sorting and Niche Parties in Europe." *West European Politics* 35(6): 1272-1294. 10.1080/01402382.2012.713746
- Adams, James, Michael Clark, Lawrence Ezrow, and Garrett Glasgow. 2006. "Are Niche Parties Fundamentally Different from Mainstream Parties? The Causes and the Electoral Consequences of Western European Parties' Policy Shifts, 1976–1998." *American Journal of Political Science* 50: 513-529. <https://doi.org/10.1111/j.1540-5907.2006.00199.x>
- Álvarez-Rivera, Manuel. 2019. "Election Resources Website." Election Resources. <http://www.electionresources.org/>
- Andersen, Jørgen G. 1988. "Miljøpolitiske skillelinjer i Danmark". *Politica* 20: 393-413. <https://doi.org/10.7146/politica.v20i4.69036>
- Andersen, Svein S. 1980. "Conflict over New Technology: The Case of Nuclear Power Planning in Norway 1972-74." *Acta Sociologica* 23(4): 297-310. <https://www.jstor.org/stable/4200659>
- Arter, David. 1987. "The 1987 Finnish election: The conservatives out of the wilderness." *West European Politics* 10(4): 171–176. 10.1080/01402388708424658
- Aylott, Nicholas and Niklas Bolin. 2019. "A party system in flux: the Swedish parliamentary election of September 2018." *West European Politics* 42(7): 1504-1515. 10.1080/01402382.2019.1583885
- Barry, Eloise. 2021. "Norway's "Climate Election" Showed Voters Want Change. But Are They Ready to Give Up Oil?" *Time*, 15.09.21. <https://time.com/6098236/norway-climate-election-results/>
- Bergh, Johannes, Stine Hesstvedt and Rune Karlsen. 2022. «Dagsorden og sakseierskap ved stortingsvalget 2021.» Oslo: Institutt for samfunnsforskning. <https://hdl.handle.net/11250/2985690>
- Berglund, Sten. 1987. "The Finnish general election of 1987." *Electoral Studies* 6(3): 271-273. [https://doi.org/10.1016/0261-3794\(87\)90038-2](https://doi.org/10.1016/0261-3794(87)90038-2).
- Birch, Sarah. 2009. "Real Progress: Prospects for Green Party Support in Britain." *Parliamentary Affairs* 62(1): 53–71. <https://doi.org/10.1093/pa/gsn037>
- Blings, Steffen. 2020. "Niche Parties and Social Movements: Mechanisms of Programmatic Alignment and Party Success." *Government and Opposition* 55: 220-240. 10.1017/gov.2018.18

- Bolin, Niklas. 2016. "Green parties in Finland and Sweden: Successful cases of the North?" In *Green Parties in Europe*, edited by Emilie van Haute, 158-177. London: Routledge.
- Bolin, Niklas and Nicholas Aylott. 2019. "The price of power: the greens in the 2018 Swedish parliamentary election." *Environmental Politics* 28(3): 568-573. 10.1080/09644016.2019.1557366
- Borg, Sami. 2019. "The Finnish Parliamentary Election of 2019: Results and Voting Patterns." *Scandinavian Political Studies* 42: 182-192. <https://doi.org/10.1111/1467-9477.12150>
- Carter, Neil. 2008. "The Green Party: Emerging from the Political Wilderness?" *British Politics* 3: 223-240. doi:10.1057/bp.2008.5
- Carter, Neil. 2013. "Greening the mainstream: party politics and the environment." *Environmental Politics* 22 (1): 73-94. 10.1080/09644016.2013.755391
- Chaisty, Paul, and Stephen Whitefield. 2015. "Attitudes towards the environment: are post-Communist societies (still) different?" *Environmental Politics* 24(4): 598-616. 10.1080/09644016.2015.1023575
- Christensen, Dag. A. 1996. "The left-wing opposition in Denmark, Norway and Sweden: Cases of Euro-phobia?" *West European Politics* 19(3): 525-546. 10.1080/01402389608425149
- Close, Caroline and Pascal Delwit. 2016. "Green parties and elections." In *Green Parties in Europe*, edited by Emilie van Haute, 241-265. London: Routledge
- Dalton, Russell J. 1984. "Cognitive Mobilization and Partisan Dealignment in Advanced Industrial Democracies." *The Journal of Politics* 46(1): 264-284. <https://doi.org/10.2307/2130444>.
- Dalton, Russel J. 2018. *Political Realignment. Economics, Culture, and Electoral Change*. Oxford: Oxford University Press.
- De Vries Catherine E. and Sara B. Hobolt. 2020. *Political Entrepreneurs, the Rise of Challenger Parties in Europe*. Princeton University: Princeton University Press.
- Dietz, Thomas M. 2000. "Similar but Different?: The European Greens Compared to Other Transnational Party Federations in Europe." *Party Politics* 6(2): 199-210. <https://doi.org/10.1177/135406880006002005>
- Dolezal, Martin. 2010. "Exploring the Stabilization of a Political Force: The Social and Attitudinal Basis of Green Parties in the Age of Globalization." *West European Politics* 33(3): 534-552. 10.1080/01402381003654569
- Downs, Anthony. 1957. "An Economic Theory of Political Action in a Democracy." *Journal of Political Economy* 65(2): 135-150. <http://www.jstor.org/stable/1827369>.
- European Greens. 2006. "Charter of the European Greens." <https://europeangreens.eu/charter>
- European Greens Statutes. 2021. "Statutes of the European Green Party." [thehttps://europeangreens.eu/sites/europeangreens.eu/files/EGP%20Statutes%20-%20-%20updated%20annex%20B%20-%202034th%20EGP%20Council.pdf](https://europeangreens.eu/sites/europeangreens.eu/files/EGP%20Statutes%20-%20-%20updated%20annex%20B%20-%202034th%20EGP%20Council.pdf)
- European Social Survey. 2019. *ESS9 – 2018 Documentation Report*. ESS9 Technical Report 2018/2019. London: ESS ERIC. Accessed 16.05.2022. https://www.europeansocialsurvey.org/docs/round9/survey/ESS9_data_documentation_report_e03_1.pdf

- European Social Survey. 2020a. "ESS9 Appendix A1 Education ed. 3.0." Updated. 10. December, 2020.
- European Social Survey. 2020b. "ESS9 Appendix A2 Income ed. 3.0." Updated 10. December, 2020.
https://www.europeansocialsurvey.org/docs/round9/survey/ESS9_appendix_a2_e03_0.pdf
- Flanagan, Scott C. and Russell J. Dalton. 1984. "Parties under stress: Realignment and dealignment in advanced industrial societies." *West European Politics* 7(1). 7-23. 10.1080/01402388408424456
- Ford, Robert and Will Jennings. 2020. "The Changing Cleavage Politics of Western Europe." *Annual Review of Political Science* 23: 295-314.
<http://dx.doi.org/10.1146/annurev-polisci-052217-104957>
- Frankland, E. G. 1989. "Federal Republic of Germany: "Die Grünen."" In *New Politics in Western Europe: The Rise and Success of Green Parties and Alternative Lists*, edited by Ferdinand Müller-Rommel, 61-79. Boulder: Westview Press.
- Franklin, Mark N. 1992. "The Decline of Cleavage Politics." In *Electoral Change: Responses to Evolving Social and Attitudinal Structures in Western Countries*, edited by Mark N. Franklin, Thomas T. Mackie, and Henry Valen, 383-405. Cambridge: Cambridge University Press.
- Franklin, Mark N., Thomas T. Mackie, and Henry Valen. 1992. *Electoral Change: Responses to Evolving Social and Attitudinal Structures in Western Countries*. Cambridge: Cambridge University Press
- Franklin Mark. N. and Wolfgang Rüdiger. 1995. "On the Durability of Green Politics': Evidence from the 1989 European Election Study." *Comparative Political Studies* 28: 409-439. <https://doi.org/10.1177/0010414095028003004>
- Garzia, Diego, Frederico Ferreira da Silva and Andrea De Angelis. 2022. "Partisan dealignment and the personalization of politics in West European parliamentary democracies, 1961-2018." *West European Politics* 45(2): 311-334. 10.1080/01402382.2020.1845941.
- Grant, Zack P. and James Tilley. 2019. "Fertile soil: explaining variation in the success of Green parties." *West European Politics* 42 (3): 495-516. 10.1080/01402382.2018.1521673
- Green-Pedersen, Christoffer. 2007. "The Growing Importance of Issue Competition: The Changing Nature of Party Competition in Western Europe." *Political Studies* 55: 607-628. <https://doi.org/10.1111/j.1467-9248.2007.00686.x>
- Green-Pedersen, Christoffer. 2019. *The Reshaping of West European Party Politics. Agenda-Setting and Party Competition in Comparative Perspective*. Oxford: Oxford University Press.
- Gwartney-Gibbs, Patricia.A. and Lach, Denise.H. 1991. "Sex differences in attitudes towards nuclear war." *Journal of Peace Research* 28(2) 161-174.
<https://doi.org/10.1177/0022343391028002003>
- Hakkarainen, Petri., and Maja Fjaestad. 2012. "Diverging Nuclear Energy Paths: Swedish and Finnish Reactions to the German Energiewende." *Renewable Energy Law and Policy Review* 3(4): 234-244. <https://www.proquest.com/scholarly-journals/diverging-nuclear-energy-paths-swedish-finnish/docview/1319480817/se-2?accountid=12870>

- Hansen, Kasper M. 2021 «Hvem vandt valget?» In *Klimavalget. Folketingsvalget i 2019*, edited by Kasper M. Hansen and Rune Stubager, 15-49. København: Djøf Forlag.
- Harju, Elli and Mika Koskinen. 2022. "Vihreät päätti, ettei ehdotakaan sunnuntain tuplapalkan poistoa tavoiteohjelmassaan." *Iltalehti*, 21.05.2022. <https://www.iltalehti.fi/politiikka/a/dce492f5-eb0f-42dd-b0cd-79631a337a53>
- Heidar, Knut. 2004. "Parties and Party Systems." In *Nordic Politics: Comparative Perspectives*, edited by Knut Heidar, 40-60. Oslo: Universitetsforlaget.
- Hesstvedt, Stine, Johannes Bergh and Rune Karlsen. 2021. «Kampen om dagsorden: et historisk tilbakeblikk på stortingsvalgene 1957-2017.» *Tidsskrift for samfunnsforskning* 62: 273-292. <https://doi.org/10.18261/issn.1504-291X-2021-03-04>
- Holmberg, Sören and Per Hedberg. 2011. *Party Influence on Nuclear Power Opinion in Sweden*. Swedish National Election Studies Program 2011/5. Gothenburg: University of Gothenburg. Accessed 03.05.2022. <https://www.gu.se/sites/default/files/2020-06/2011%205%20Holmberg%20%26%20Hedberg%20-%20Party%20Influence%20on%20Nuclear%20Power%20Opinion%20in%20Sweden.pdf>
- Hooghe, Liesbet, Gary Marks, and Carole J. Wilson. 2002. "Does Left/Right Structure Party Positions on European Integration?" *Comparative Political Studies* 35(8): 965-989. <https://doi.org/10.1177/001041402236310>.
- Hooghe, Liesbet and Gary Marks. 2018. "Cleavage theory meets Europe's crises: Lipset, Rokkan, and the transnational cleavage." *Journal of European Public Policy* 25(1): 109-135. 10.1080/13501763.2017.1310279
- Inglehart, Ronald. 1971. "The Silent Revolution in Europe: Intergenerational Change in Post-Industrial Societies." *The American Political Science Review* 65(4): 991-1017. <https://doi.org/10.2307/1953494>.
- Inglehart, Ronald. 1977. *The Silent Revolution: Changing Values and Political Styles Among Western Publics*. Princeton University: Princeton University Press.
- Inglehart, Ronald. 1984. "The Changing Structure of Political Cleavages in Western Society." In *Electoral Change in Advanced Industrial Democracies: Realignment or Dealignment*, Edited by Russell J. Dalton, Scott C. Flanagan, and Paul Allen Beck, 25-70. Princeton: Princeton University Press.
- Inglehart, Ronald. 1990. *Culture Shift in Advanced Industrial Society*. Princeton: Princeton University Press
- Inglehart, Ronald. 1995. "Public Support for Environmental Protection: Objective Problems and Subjective Values in 43 Societies." *Political Science and Politics* 28(1): 57-72. <https://doi.org/10.2307/420583>.
- Inglehart, Ronald. 2008. "Changing Values among Western Publics from 1970 to 2006." *West European Politics* 31(1): 130-146. 10.1080/01402380701834747
- Intergovernmental Panel on Climate Change. 2021. "Climate change widespread, rapid, and intensifying – IPCC." <https://www.ipcc.ch/2021/08/09/ar6-wg1-20210809-pr/>
- Jahn, Detlef. 1993. "The rise and decline of new politics and the Greens in Sweden and Germany." *European Journal of Political Research* 24(2): 177-194. 10.1111/j.1475-6765.1993.tb00375.x

- Jahn, Detlef and Sebastian Korolczuk. 2012. "German exceptionalism: the end of nuclear energy in Germany!" *Environmental Politics* 21(1): 159-164. 10.1080/09644016.2011.643374
- Jamison, Andrew, Ron Eyerman, Jacqueline M. Cramer, and Jeppe Lasseo. 1990. *The Making of the New Environmental Consciousness: A Comparative Study of the Environmental Movements in Sweden, Denmark and the Netherlands*. Edinburgh: Edinburgh University Press.
- Johnsen, Alf B. and Tim Peters. 2013. «Stoltenberg: «Derfor tapte Ap regjeringmakten.»» *VG*, 17.09.2013. <https://www.vg.no/nyheter/innenriks/i/Xr0nn/stoltenberg-derfor-tapte-ap-regjeringmakten>
- Joly, Josephine. 2021. "Germany begins nuclear phase-out, shuts down three of six nuclear power plants." *Euronews*, 31.12.2021. <https://www.euronews.com/2021/12/31/germany-begins-nuclear-phase-out-shuts-down-three-of-six-nuclear-power-plants>
- Kajiser, Arne and Jan-Henrik Meyer. 2018. "The World's Worst Located Nuclear Power Plant: Danish and Swedish cross-border perspectives on the Barsebäck nuclear power plant." *Journal for the History of Environment and Society* 3: 71-105. 10.1484/J.JHES.5.116795
- Karlsen, Rune. 2015. «Politiske saker i valgkampen.» I *Valg og velgere. En studie av stortingsvalget 2013*, edited by Bernt Aardal and Johannes Bergh, 34-48. Oslo: Cappelen Damm Akademisk.
- Keman, Hans and Paul Pennings. 2017. "Comparative research methods." In *Comparative Politics*, edited by Daniele Caramani, 49-61. Oxford: Oxford University Press.
- Kitschelt, Herbert P. 1986. "Political Opportunity Structures and Political Protest: Anti-Nuclear Movements in Four Democracies." *British Journal of Political Science* 16(1): 57-85. <https://doi.org/10.1017/S000712340000380X>
- Kitschelt, Herbert. 1989. *The Logics of Party Formation: Ecological Politics in Belgium and West Germany*. Ithaca: Cornell University Press.
- Kitschelt, Herbert. 1994. *The Transformation of European Social Democracy*. Cambridge: Cambridge University Press.
- Knutsen, Oddbjørn. 1990. "Materialist and Postmaterialist Values and Social Structure in the Nordic Countries: A Comparative Study." *Comparative Politics* 23(1): 85-104. <https://www.jstor.org/stable/422306>
- Knutsen, Oddbjørn. 1995. "The Impact of Old Politics and New Politics Value Orientations on Party Choice: A Comparative Study." *Journal of Public Policy* 15(1): 1-63. <https://www.jstor.org/stable/4007525>
- Knutsen, Oddbjørn. 2004. "Religious Denomination and Party Choice in Western Europe: A Comparative Longitudinal Study from Eight Countries, 1970-97." *International Political Science Review* 25(1): 97-128. 10.1177/0192512104038169
- Koelble, Thomas A. 1991. *The Left Unraveled: Social Democracy and the New Left Challenge in Britain and West Germany*. Durham: Duke University Press
- Kreuzer, Markus. 1990. "New politics: Just post-materialist? The case of the Austrian and Swiss Greens." *West European Politics* 13(1): 12-30. 10.1080/01402389008424777

- Kriesi, Hanspeter, Edgar Grande, Romain Lachat, Martin Dolezal, Simon Bornschier and Timotheos Frey. 2006. "Globalization and the transformation of the national political space: Six European countries compared." *European Journal of Political Research* 45: 921-956. <https://doi.org/10.1111/j.1475-6765.2006.00644.x>
- Lazarsfeld, Paul F., Bernard Berelson, and Hazel Gaudet. 1948. *The People's Choice. How the Voter Makes Up His Mind in a Presidential Campaign*. New York: Columbia University Press.
- Lijphart, Arend. 1971. "Comparative Politics and the Comparative Method." *The American Political Science Review* 65(3): 682-693. <https://doi.org/10.2307/1955513>.
- Lijphart, Arend. 1975. "II. The Comparable-Cases Strategy in Comparative Research." *Comparative Political Studies* 8(2): 158-177. <https://journals.sagepub.com/doi/pdf/10.1177/001041407500800203>
- Lipset, Seymour M. and Stein Rokkan. 1967. "Cleavage structures, party systems and voter alignments: An introduction." In *Party Systems and Voter Alignments: Cross-National Perspectives*, edited by Seymour M. Lipset and Stein Rokkan, 1-64. New York: Free Press.
- Lounasmeri, Lotta. 2022. "Building New Nuclear in Finland: Crises Challenging Core Beliefs around Nuclear Energy." *Journal of Energy and Power Technology* 4(2): 1-21. [10.21926/jept.2202012](https://doi.org/10.21926/jept.2202012)
- Mair, Peter and Cas Mudde. 1998. "The Party Family and its Study." *Annual Reviews of Political Science* 1: 211-229. <https://doi.org/10.1146/annurev.polisci.1.1.211>
- Maslow, Abraham. H. 1954. *Motivation and Personality*. New York: Harper & Row Publishers.
- McStay, Jan.R. and Dunlap, Riley.E. 1983. "Male-female differences in concern for environmental quality." *International Journal of Women's Studies* 6(4): 291-301. https://www.researchgate.net/publication/301347114_Male-Female_Differences_in_Concern_for_Environmental_Quality_An_Empirical_Analysis
- Meguid, Bonnie M. 2005. "Competition Between Unequals: The Role of Mainstream Party Strategy in Niche Party Success." *American Political Science Review* 99 (3): 347-359. <https://doi.org/10.1017/S0003055405051701>
- Meguid, Bonnie M. 2007. *Party Competition between Unequals: Strategies and Electoral Fortunes in Western Europe*. Cambridge: Cambridge University Press
- Mehmetoglu, Mehmet og Tor G. Jakobsen. 2017. *Applied Statistics Using Stata, a Guide for the Social Sciences*. New York: SAGE Publications Ltd.
- Meyer, Thomas M. and Markus Wagner. 2013. "Mainstream or Niche? Vote-Seeking Incentives and the Programmatic Strategies of Political Parties." *Comparative Political Studies* 46(10): 1246-72. <https://doi.org/10.1177/0010414013489080>.
- Müller-Rommel, Ferdinand. 1989. "Green Parties and Alternative Lists Under Cross-National Perspective." In *New Politics in Western Europe. The Rise and Success of Green Parties and Alternative Lists*, edited by Ferdinand Müller-Rommel, 5-23. Boulder: Westview Press, Inc.
- Müller-Rommel, Ferdinand. 1998. "Explaining the electoral success of green parties: A cross-national analysis." *Environmental Politics* 7(4): 145-154. DOI: [10.1080/09644019808414428](https://doi.org/10.1080/09644019808414428)
- Müller, Wolfgang C. and Paul W. Thurner. 2017. "Nuclear Energy in Western Europe: Revival or Rejection? An Introduction." I *The Politics of Nuclear Energy in Western*

- Europe*, edited by Wolfgang C. Müller and Paul W. Thurner, 1-21. Oxford: Oxford University Press.
- Neundorf, Anja and James Adams. 2016. "The Micro-Foundations of Party Competition and Issue Ownership: The Reciprocal Effects of Citizens' Issue Salience and Party Attachments." *B.J.POL.S* 48:385-406. doi:10.1017/S0007123415000642
- NSD. 2022. "Parliamentary elections." https://o.nsd.no/european_election_database/election_types/parliamentary_elections.html
- NTB-TT. 2021. «Økende støtte til kjernekraft i Sverige.» <https://e24.no/internasjonaloekonomi/i/M3M9rR/oekende-stoette-til-kjernekraft-i-sverige>
- OECD. 2021. *Education at a Glance 2021: OECD Indicators*. Paris: OECD Publishing. <https://doi.org/10.1787/b35a14e5-en>.
- Oesch, Daniel. 2012. "The class basis of the cleavage between the New Left and the radical right: an analysis for Austria, Denmark, Norway and Switzerland." In *Class Politics and the Radical Right*, edited by Jens Rydgren, 10-31. New York: Routledge.
- Paastela, Jukka. 1989. "Finland: the "Vihreät."" In *New Politics in Western Europe: The Rise and Success of Green Parties and Alternative Lists*, edited by Ferdinand Müller-Rommel, 81-87. Boulder: Westview Press.
- Padgett, Stephen and William Paterson. 1991. "The Rise and Fall of the West German Left." *New Left Review* 186: 46-77. <https://newleftreview.org/issues/i186/articles/stephen-padgett-william-paterson-the-rise-and-fall-of-the-west-german-left>
- Palonen, Emilia. 2020. "Finland: Political Developments and Data in 2019." *European Journal of Political Research Political Data Yearbook* 59: 130-141. <https://doi.org/10.1111/2047-8852.12297>
- Parkin, Sara. 1989. *Green parties: an international guide*. London: Heretic Books.
- Pederby, Tryggve. 2020. *Väljarnas bedömningar av partiernas politik 1979-2018*. Valforskningsprogrammet 2020/13. Göteborg: Göteborgs universitet. Accessed 28.04.2022. https://www.gu.se/sites/default/files/2020-11/2020%2013%20Pederby%20-%20Va%CC%88ljarnas%20bedo%CC%88mningar%20av%20partiernas%20politik%201979-2018_0.pdf
- Peltier, Elian. 2021. "Norway's "Climate Election" Puts Center-Left in Charge". *New York Times*, 13. September, 2021. <https://www.nytimes.com/2021/09/13/world/europe/norway-climate-election.html>
- Petersson, Olof., and Henry Valen. 1979. "Political Cleavages in Sweden and Norway." *Scandinavian Political Studies* 2(4): 313-332. doi:10.1111/j.1467-9477.1979.tb00226.x
- Petrocik, John R. 1996. "Issue Ownership in Presidential Elections, with a 1980 Case Study." *American Journal of Political Science* 40 (3): 825-850. <https://doi.org/10.2307/2111797>
- Poguntke, Thomas. 1987. "New politics and party systems: The emergence of a new type of party?" *West European Politics* 10(1): 76-88. 10.1080/01402388708424615
- Poguntke, Thomas. 1989. "The "New Politics Dimension" in European Green Parties." In *New Politics in Western Europe. The Rise and Success of Green Parties and*

- Alternative Lists*, edited by Ferdinand Müller-Rommel, 175-195. Boulder: Westview Press, Inc.
- Poguntke, Thomas. 1993. "Goodbye to movement politics? Organisational adaptation of the German green party." *Environmental Politics* 2(3): 379-404. 10.1080/09644019308414086
- Politico. 2022. "Poll of Polls." <https://www.politico.eu/europe-poll-of-polls/>
- Przeworski, Adam, and Henry Teune. 1970. *The logic of comparative social inquiry*. New York: Wiley-Interscience.
- Rabinowitz, George and Stuart Elaine Macdonald. 1989. "A Directional Theory of Issue Voting." *The American Political Science Review* 83(1): 93-121. <https://doi.org/10.2307/1956436>.
- Raunio, Tapio. 2020. "Becoming a 'national' party? The Greens in the 2019 Finnish parliamentary elections." *Environmental Politics* 29(2): 349-353. 10.1080/09644016.2019.1646445
- Rennwald, Line and Geoffrey Evans. 2014. "When Supply Creates Demand: Social Democratic Party Strategies and the Evolution of Class Voting." *West European Politics* 37(5): 1108-1135. 10.1080/01402382.2014.920981
- Ringdal, Kristen. 2014. *Enhet og mangfold. Samfunnsvitenskapelig forskning og kvantitativ metode*. Bergen: Fagbokforlaget.
- Ritchie, Hannah and Max Roser. 2021. "Nuclear Energy." Our World in Data. <https://ourworldindata.org/nuclear-energy>
- Rose, Richard, and Derek W. Urwin. 1970. "Persistence and Change in Western Party Systems since 1945." *Political Studies* 18(3): 287-319. <https://doi.org/10.1111/j.1467-9248.1970.tb00436.x>.
- Rüdiger, Wolfgang. 1991. "Green Party Politics Around the World." *Environment: Science and Policy for Sustainable Development* 33(8): 6-31. 10.1080/00139157.1991.9931410
- Rüdiger, Wolfgang. 2012. "The perennial success of the German Greens." *Environmental Politics* 21(1): 108-130. 10.1080/09644016.2011.643371
- Sainsbury, Diane. 1989. "The 1988 Swedish election: The breakthrough of the greens." *West European Politics* 12(2): 140-142. 10.1080/01402388908424743
- Schumacher, Ingmar. 2014. "An Empirical Study of the Determinants of Green Party Voting." *Ecological Economics* 105: 306-318. 10.1016/j.ecolecon.2014.05.00
- Spoon, Jae-Jae. 2009. "Holding Their Own: Explaining the Persistence of Green Parties in France and the UK." *Party Politics*: 15(5): 615-634. 10.1177/1354068809336397
- Spoon, Jae-Jae, Sara Hobolt and Catherine De Vries. 2014. "Going green: Explaining issue competition on the environment." *European Journal of Political Research* 53 (2): 363- 380. 10.1111/1475-6765.12032
- Starkweather, Jon and Amanda K. Moske. "Multinomial logistic regression." Unpublished manuscript, 2011. Retrieved from: https://it.unt.edu/sites/default/files/mlr_jds_aug2011.pdf
- Sugue, Merlin, Antonia Zimmermann, and Joshua Posaner. 2021. "How Germany's big parties line up on climate, mobility policy." *Politico*, 22. July, 2021. <https://www.politico.eu/article/how-germanys-election-contenders-line-up-on-climate-mobility-policy/>

- Tagesschau. 2021. "Wie die Wähler wanderten." Updated 27. September, 2021.
<https://www.tagesschau.de/inland/btw21/waehlerwanderung-bundestagswahl-103.html>
- The World Bank. 2022. "Databank. World Development Indicators. Electricity production from nuclear sources (% of total)."
<https://databank.worldbank.org/reports.aspx?source=2&series=EG.ELC.NUCL.ZS&country=>
- Togeby, Lise, Jørgen G. Andersen, Peter M. Christiansen, Torben B. Jørgensen og Signild Vallgård. 2003. *Magt og demokrati i Danmark. Hovedresultater fra magtudredningen*. Århus: Aarhus Universitetsforlag.
- United Nations. 2021. "Secretary-General's remarks to the Security Council High-level Open Debate on the Maintenance of International Peace and Security: Climate and Security." <https://www.un.org/sg/en/node/259472>
- Valforskningsprogrammet. 2020. *Viktiga frågor för partivalet 1979–2018*. Valforskningsprogrammets faktablad 2020/4. Göteborg: Valforskningsprogrammet. Accessed 25.05.2022.
<https://www.gu.se/sites/default/files/2020-03/2020%204%20Viktiga%20fra%CC%8Agor%20fo%CC%88r%20partivalet%201979-2018.pdf>
- van Haute, Emilie. 2016. "Introduction." In *Green Parties in Europe*, edited by Emilie van Haute, 1-13. London: Routledge.
- Wagner, Markus. 2011. "Defining and measuring niche parties." *Party Politics* 18(6): 845- 864. 10.1177/1354068810393267
- Waltz, Kenneth. 1979. *Theory of International Politics*. Boston: Addison-Wesley Publishing Company, Inc.
- Wiliarty, Sarah E. 2013. "Nuclear Power in Germany and France." *Polity* 45(2): 281–296.
<http://www.jstor.org/stable/24540209>.
- World Nuclear Association. 2022. "Nuclear Power in Germany." Updated January, 2022.
<https://world-nuclear.org/information-library/country-profiles/countries-g-n/germany.aspx>
- Zilliacus, Kim O.K. 2001. "'New politics' in Finland: The greens and the left wing in the 1990s." *West European Politics* 24(1): 27-54. 10.1080/01402380108425416

Appendix

Appendix 1. Electoral results of Green parties in national elections (in percent)

Denmark			1.3 1987	1.4 1988	0.9 1990							
Finland	0.1 1979	1.5 1983	4.0 1987	6.8 1991	6.5 1995	7.3 1999	8.0 2003	8.5 2007	7.3 2011	8.5 2015	11.5 2019	
Germany	1.5 1980	5.6 1983	8.3 1987	5.0 1990	7.3 1994	6.7 1998	8.6 2002	8.1 2005	10.7 2009	8.4 2013	8.9 2017	14.8 2021
Norway				0.4 1989	0.1 1993	0.2 1997	0.2 2001	0.1 2005	0.3 2009	2.8 2013	3.2 2017	3.9 2021
Sweden		1.6 1982	1.5 1985	5.5 1988	3.4 1991	5.0 1994	4.5 1998	4.6 2002	5.2 2006	7.3 2010	6.9 2014	4.4 2018

Source Álvarez-Rivera, 2019, NSD 2022, and Politico 2022.

