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**The Changing Dynamics of Electoral Behavior and Party Competition:
The Case of Scandinavia**

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1 Introduction

The character of political representation in contemporary Western Europe has been changing. The emergence of new issues related to international and regional development such as immigration, environmentalism, and European integration, contribute to growing electoral volatility and render electoral behavior less predictable (Mair, 2008). However, some scholars argue that a decline in class voting and other traditional cleavages does not imply that the electoral behavior in Western Europe is no longer structured (Kriesi et al., 2006; Stubager, 2013). Instead, they describe the emergence of a new cleavage based on values (Kriesi, 2010), formed between the so-called winners and losers of globalization (Teney, Lacewell, & De Wilde, 2014).

Indeed, the process globalization, or European regionalization (Hay & Wincott, 2012), has unequal consequences for different socio-economic groups. Although there is a cross-national variation too, it can be argued that, in general, highly educated and well-trained individuals enjoy a relatively free choice about where to live and work and what (and at what price) to consume. On the other hand, large groups of unskilled low-educated workers fear that free trade, freedom of movement, and new technologies will make them redundant.

In general, the two groups seem to differ in attitudes on globalization, European integration and immigration (Kriesi, 2010), but also, with regard to the level of education, on cultural values. While the former tends to be more libertarian and promote free and equal interaction and respect for others and tolerance, the latter show authoritarian tendencies with support for social hierarchy, law and order, and strict adherence to conventional norms (Stubager, 2013).

The divide then materializes in electoral terms through the support for political parties emerging on the extreme edges of the left-right ideological spectrum. The extreme right parties typically embrace anti-European and authoritarian stances while the new left and Green parties champion the most libertarian and pro-European values (Müller-Rommel, 1990; Gallagher, Laver, & Mair, 2011). We thus can observe a competition over cultural values between authoritarian, anti-European and anti-immigration extreme right and pro-European liberal left. However, how deep is this divide and to what extent can we consider it as a new cleavage? This question cannot be answered by studying political parties alone. The observations on party competition must be complemented by a thorough study of voter behavior at the individual level, to which this project aims to contribute.

1.1 The case of Scandinavia

In 1973, Denmark experienced the so-called "earthquake" election (Gallagher et al., 2011). After many years of party competition dominated by the centre-left Social Democratic party, the newly emerged extreme right Progress Party was able to obtain almost one-fifth of the total vote. The Norwegian electoral experience the same year was more moderate, however, the 5 percent of votes obtained by the Norwegian Progress Party were perceived as a symbol of future change.

Originally, the Norwegian and Danish Progress Parties had for their *raison d'être* the dismantling of welfare state combined with culturally authoritarian and anti-immigration stances on the one hand and culturally libertarian advocacy for the liberalization of the strict alcohol policies on the other hand (Jungar & Jupskås, 2014; Andersen & Bjørklund, 1990). The relative importance of the economic dimension and the ideological blending on the cultural dimension attracted a miscellaneous electorate across different social classes and value positions (Andersen & Bjørklund, 1990).

However, since the 1990s we could observe an important change in the ideology of these parties. The Norwegian and Danish extreme right parties moved towards a more distinct ideological position of the "new winning formula" combining the culturally authoritarian positions and welfare chauvinism and clearly stressing the importance of the former (Kitschelt, 1996). This ideological shift itself is relatively unique.

In addition, together with the increased importance of the cultural ideological dimension compared to the economic one, it made the dynamics of party competition in the region very similar to many other Western European countries. On the one hand, the mainstream parties compete over the economic dimension and, on the other hand, the extreme right, the liberal parties, and, to a certain extent, the Green party, and the New Left parties over the cultural dimension and values (Meguid, 2005).

The case of Sweden tells a different and interestingly contrasting story. Although the Swedish Progress Party was created already at the end of the 1960s, the party went through many internal problems and had never experienced any significant electoral success. Since the 1980s, before being dissolved, it coexisted with another extreme right party, the Sweden Party and, a few years later, the New Democracy.

The New Democracy was closer to the Norwegian and Danish anti-tax movements, but was able to gain enough electoral support to enter the Swedish parliament only in 1991. In contrast, the Sweden Democrats defined themselves from the beginning as an anti-immigration and culturally strongly authoritarian movement. The party had its roots in Swedish fascism and was part of the white supremacy movement. However, since 1995, the party has undergone important ideological moderation inspired, among others, by the French Front National. Although Sweden Democrats' electoral success was far from being sudden, the party obtained 13% of votes in the last parliamentary elections.

While the origins and development of extreme right parties in the region differ, from the ideological point of view they all converted towards the "new winning" formula model comparable to many other West-European countries. The case of Scandinavia thus may provide interesting insights into the study of the value-based cleavage. The constant redefinition of the party competition both at the moment when the new parties emerged, and

throughout the time of their ideological shifts, makes it possible to examine not only the conditions under which the new cleavage materializes, but also whether a specific party constellation enhances or drains its strength.

Finally, the study discusses the relation between party positioning and electoral behaviour more in general since, based on the "europeanization" of the European politics, the ideological closeness and strategic cooperation of political parties belonging to the same ideological families across Europe (Caramani, 2012) we can expect the current dynamics of party competition in Denmark, Sweden and Norway to be comparable with other Western European multi-party systems.

1.2 Research question and hypotheses

The aforementioned shift in the ideological positions of extreme right parties in Denmark and Norway allows us to compare the pre-1990s period, characterized by a relatively unstructured party competition on the cultural dimension of the ideological spectrum, with the post-1990s period when the competition on the cultural dimension became increasingly clearly divided between the extreme right parties on the one side and the liberal parties on the other side. Also, this development can be contrasted with the Swedish case where, despite the many similarities in political institutions, the openness of the party system and the character of the party competition, the extreme right party did not receive any significant electoral support until the 1991 parliamentary election.

Given this evolution, it is possible to expect that the formation of the new cleavage would be limited in the early years of existence of Scandinavian extreme right and, if such a cleavage materialized in the region, it should be more pronounced today. Thus, I would like to ask the following research question: *To what extent does the electoral behavior in Denmark, Sweden and Norway reflect the changing party competition over the last four decades?*

Since it is not in the scope of this study to assess all the dimensions of the concept of cleavage, it primarily focuses on the formation of a common socio-structural division (Bartolini & Mair, 1990) around the possible new value-based cleavage. While we would expect the traditional socio-economic characteristics such as the social class to be related the owners-workers cleavage and the vote for the mainstream left and right parties (Petersson &

Valen, 1979), when it comes to the new value-based cleavage, a special focus would be put on the level of education that has been identified as a possible new socio-structural divide (Stubager, 2013).

First, expecting mainly the niche parties to compete along the possible new value-based cleavage (Meguid, 2005), we would analyze the evolution of the socio-economic structure of niche parties' voters over time. The first hypothesis thus postulates, that if the new value-based cleavage has emerged and is becoming increasingly important, *the electorate of the extreme right parties and the liberal parties in Scandinavia should be increasingly homogeneous with regard to the level of education over time (H1)*.

Second, it is important to evaluate to what extent the different socio-economic characteristics predict the vote for niche parties. If the value-based cleavage became more important, we would expect the role of education in predicting the vote for niche parties to be increasingly important. The second hypothesis thus postulates, that *the role of education in predicting the vote for the extreme right parties and the liberal parties in Scandinavia should become more important over time (H2)*.

1.3 Data and research design

First, the study uses party positions based on the Chapel Hill Expert Survey (CHES) (Bakker et al., 2015). The survey allows to estimate party positions on European integration, ideology, and policy issues for national parties in more than 31 European countries since 1999. It is also better suited for identifying party positions compared to other types of party position surveys such as the Comparative Manifesto Project (CMP) (Klingemann, 2006). While the CMP proves to be highly suitable when analyzing the salience of different political issues or dimensions, its use is quite limited when it comes to estimating party positions and often gives unstable results (Dinas & Gemenis, 2010; McDonald & Budge, 2014). When presenting the development of extreme parties' ideology in the region, I thus refer mainly to an extensive scientific literature and use analyses based on CMP rather as coarse-grained illustration.

Second, to analyze the voting choice, the socio-economic characteristics of the Danish, Swedish and Norwegian electorate, the study uses a unique dataset created specifically for this purpose. The new dataset was created

based on 42 original post-electoral surveys conducted in Denmark, Sweden and Norway between 1971 and 2015 to collect individual level data on different aspects of political and private life of individuals having the right to vote in national elections. The new time-series comparative dataset comprises in total 101774 individuals interviewed immediately after the parliamentary elections in their respective countries over more than 40 years.

There are two main reasons why this dataset provides a better-suited base for analysis of political development in the region than any other data that are currently available to researchers. First, compared to post-electoral surveys conducted in individual countries, it allows for comparative analysis across different countries with the same set of questions and unified set of possible answers for each of the country.

Second, compared to cross-sectional data provided for instance by the European Social Survey (ESS), it covers much longer period of time. Also, the surveys were conducted immediately after the general elections in each given country and not in fixed waves that generally creates different time-spans between the general elections and the survey in different countries. This should furnish the data with higher accuracy while their overall quality remains comparable to such sources of data as ESS.

The study first explores and compares the political attitudes of voters of extreme right and liberal parties over time to see whether they differ between countries and whether they evolve in time. Then, the socio-economic characteristics with focus on education of voters of extreme right and liberal parties are analyzed to evaluate the first hypothesis and observe whether the electorate of these parties eventually became more homogeneous with regard to these characteristics over time. Finally, series of bi-nominal logistic regressions is conducted to evaluate the predictive force of different socio-economic characteristics on the vote for extreme right and liberal parties across different countries and over time.

2 A (new) cleavage?

Before we may consider the substance of the possible societal divides in Western Europe in general, and in Scandinavia in particular, it is important to briefly assess the concept of cleavage itself. According to Bartolini and Mair (1990), a cleavage involves the following three main elements. The cleavage should be formed along a social-structural division, the groups involved should be conscious of their shared values and interests and should have a sense of collective identity and, finally, these interests should be expressed in organizational terms (Bartolini & Mair, 1990).

During the 1950s and 1960s, the party competition and voters' behavior in Western Europe seemed to be surprisingly stable. In their seminal work, Lipset and Rokkan explained this stability by the historical formation of four dominant societal divides, or so-called cleavages, that deeply structured the European politics (Lipset & Rokkan, 1967). According to the authors, the first two cleavages materialized around cultural values and divided the dominant culture from the subject (periphery) cultures and the church from the state. The two other cleavages were linked to the industrial revolution and materialized between the interests of rural and urban areas and between the interests of employers and workers (idem: 13-26).

The cleavage theory also served to explain the differences in party systems across West European countries. While the cleavage between employers and workers emerged in all of the political systems, the dominance of other cleavages varied across different countries. In Scandinavia, besides the very structuring class divide, the rural-urban cleavage was historically important (Sundberg, 1999).

The "frozen party system" hypothesis developed by Lipset and Rokkan was challenged during the 1970s. The stability and persistence of the previous two decades eroded, the electoral behaviour became more volatile (Pedersen, 1979), and new political parties, principally competing around cultural values entered the political scene (Müller-Rommel, 1990). A good example of the change can be the Danish national parliamentary elections of 1973 in which the newly emerged extreme right Progress Party obtained almost 16 percent of the vote and according to the Pedersen's index, the aggregate volatility compared to the previous elections was 29 percent.

While the party competition and electoral behavior in Western Europe became less structured, scholars argue that the change may have been towards a new re-alignment along a cultural divide. One of the possible new cleavage builds on the Inglehart's theory of post-materialism (Inglehart, 1981). It suggests that voters, in particularly the young and highly educated generation, increasingly stress on cultural values such as the environmental protection, feminism and social rights that divides the political competition between the new and the traditional mainstream parties.

However, a more accurate image may be obtained if we consider the party competition to happen in a two-dimensional space and the divide to occur between economic left and right and the cultural liberalism and authoritarianism (Hooghe & Marks, 2009). Scholars argue that the economic globalization and "denationalization" of European nation-states (Bartolini, 2005) had diverging consequences for different social groups and resulted into a division between the so-called losers and winners of globalization (Kriesi et al., 2008). The two groups generally hold different positions on the cultural dimension. While the former express more authoritarian tendencies, the latter usually stands for liberal values. This division can be considered as a new value-based cleavage (Kriesi, 2010).

3 Party competition in Denmark, Sweden and Norway

Political institutions and party systems in Denmark, Sweden and Norway show many similarities and the party systems in these countries are often being referred to as "Scandinavian" (Arter, 2008). While the party constellation was generally comparable between the countries, it went through relatively important changes over time. Also, the case of Sweden offers an interestingly contrasting case when it comes to the origins of and electoral support for its extreme right. This section first present the party systems in Denmark, Sweden and Norway based on the in existing scientific literature. Then, it provides analyses of party positions in the Scandinavian region based on the Chapel Hill Expert Survey and the Comparative Manifesto Project.

3.1 Scandinavian Party System

The party system in Denmark, Sweden and Norway was traditionally considered as a functioning multiparty system with a dominant party on the centre-left (Arter, 2008). Indeed, the Social Democratic parties in the region were one of the most successful social democratic parties in Europe (Gallagher et al., 2011) and even though their electoral support weakened over time, they even nowadays continue to obtain the plurality of votes in most of the national parliamentary elections.

While the Social Democrats traditionally cultivate tight links with trade unions and aim to represent the interests of working class, the centre right Conservative parties defend the economic interests of the middle and upper-middle classes. In addition, the center-right political space in the region traditionally include Agrarian parties and, except for the case of Denmark, relatively important Christian Democratic parties. Finally, Scandinavian Liberal parties stand for economic and social liberalism and later on for environmental protection and multiculturalism.

Furthermore, the student movement of the 1960s gave rise to several New Left parties that embed democratic socialism, eco-socialism, but also EU-scepticism. This ideological orientation was two decades later joined by newly created Green parties that put the ecological dimension in the center of their interests. While they had shared origins, their further existence remained marked by a significant difference in their electoral support. Contrary to the relative popularity of the Swedish Green Party, the *Miljöpartiet De Grønne* in Norway gained its very first parliamentary mandate in the last parliamentary elections with 2.8% of the vote. The Danish textitDe Grønne had never been represented in the parliament and the party was dissolved in 2014.

At the beginning of the 1970s, anti-tax movements led by Anders Lange in Norway and Mogens Glistrup in Denmark organized into political formations generally classified as populist and extreme right. They represented a libertarian economic opposition to high taxes policies, state-regulations and public bureaucracy. The Norwegian Progress Party, and to some extend also its Danish counterpart, initially perceived immigration as an economic rather than cultural thread and fought for liberalization of the strict alcohol policies. However, over time, the extreme right parties in Denmark, Sweden and Norway began to cultivate the "new winning formula" of cultural au-

thoritarianism and welfare chauvinism (Kitschelt, 1996).

All in all, the party systems in Denmark, Sweden and Norway show similar features when it comes to major political divide. They all have one dominant party on the center-left, a coalition of parties on the center-right and an important agrarian movement. However, they also demonstrate interesting heterogeneity when it comes to relatively new political movements, and represent an interesting region for further analysis of changes in electoral support. Complete electoral support for different parties in Denmark, Sweden and Norway over the last five decades can be found in Appendix A of the Codebook.

3.2 Ideological Positions of Political Parties in Scandinavia

Figures 1, 2 and 3 are based on the Chapel Hill Expert Survey Data (Polk et al., 2017) and illustrate the current ideological positions of political parties in Denmark, Sweden and Norway on both economic and cultural axes. It can be observed that while the extreme right parties tend to situate themselves on the very right edge of the cultural axis, they are rather in the middle when it comes to economic stances. This may be due to their economic welfare chauvinism, but also, to a certain extend, to their ideological blurring on economic issues (Rovny, 2013).

Among the niche parties on the cultural axis we thus observe a divide between the (New) Left, Green and Liberal parties on the one side and the extreme right parties on the other side. However, the Left and Green parties in Scandinavia continue to accord high importance to economic issues, express strong anti-EU attitudes and conditions the environmental protection by economic concerns (Arter, 2008). I thus decided, in line with the scholarship on cleavages (Stubager, 2013), to analyze the possible new divide between the Extreme right parties in relation to Liberal parties that stands for multiculturalism, environmental protection, and are members of the Alliance of Liberals and Democrats for Europe (Leiphart & Svasand, 1988).

Figure 1: Ideological Positions of Political Parties on Economic and Cultural Axes, Denmark 2014

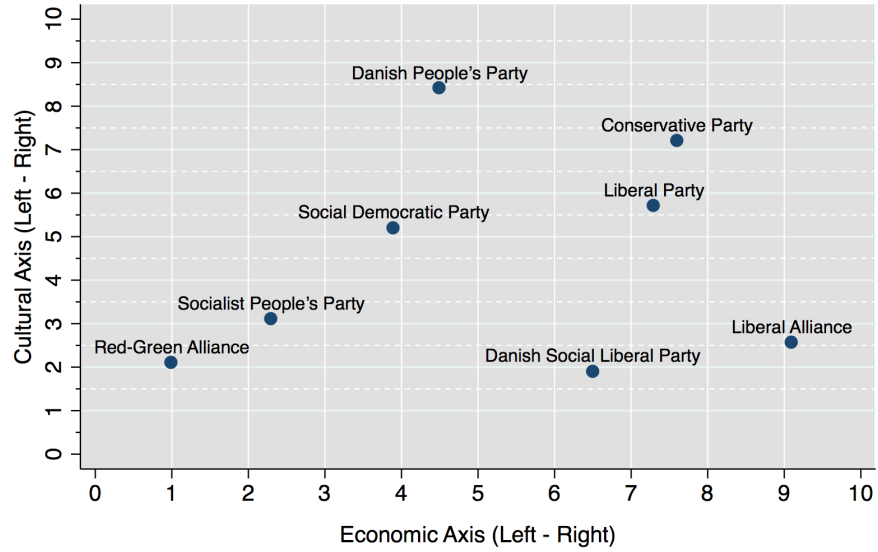
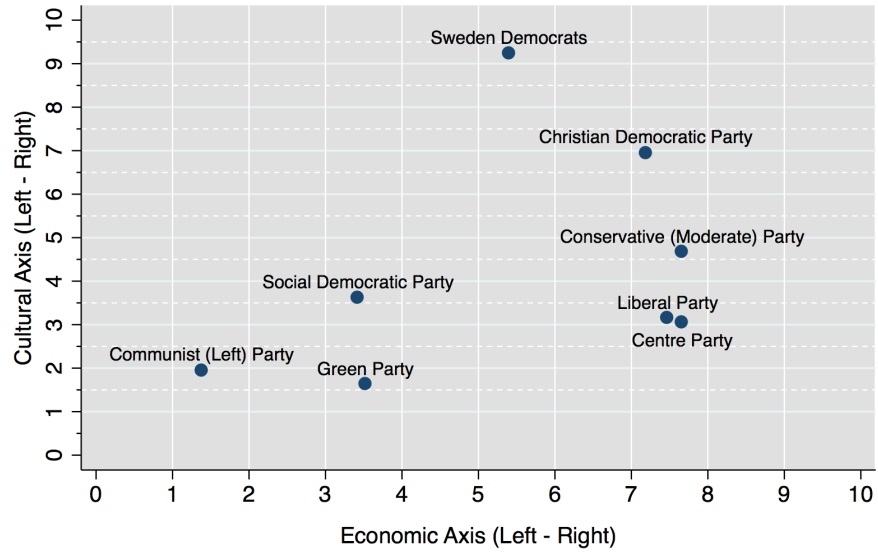
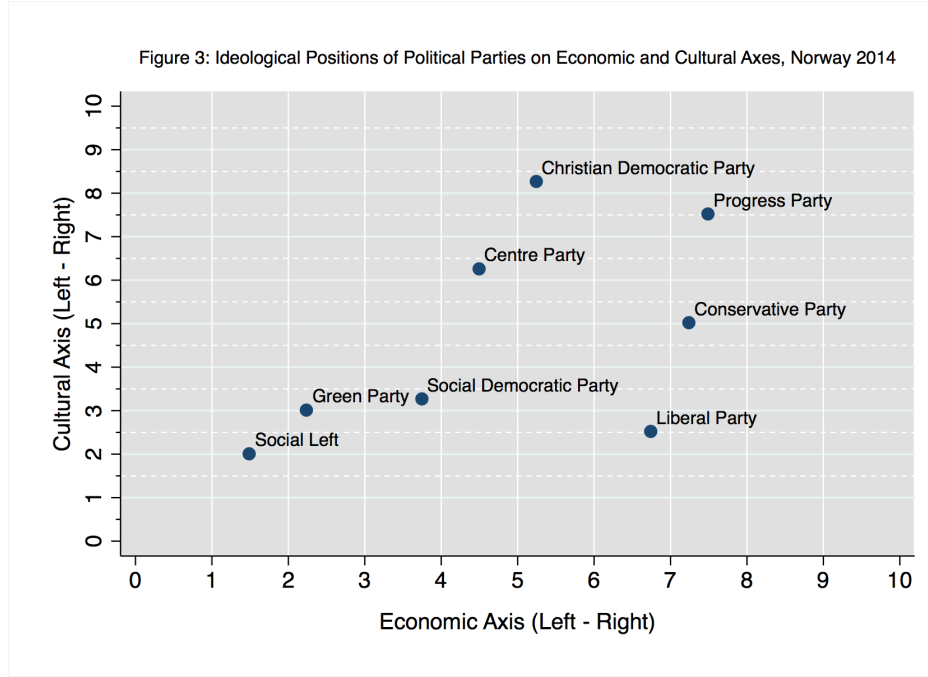


Figure 2: Ideological Positions of Political Parties on Economic and Cultural Axes, Sweden 2014





Finally, I decided to illustrate the ideological evolution of extreme right parties in the region by analyses based on data from the Comparative Manifesto Project (CMP) (Volgens et al., 2018). As it was mentioned above, there are several limits when using the CMP to identify party positions and thus all the indications are rather approximate. We thus should be interested in general tendencies over time than in absolute time-specific values.

Figure 4 indicates the ideological evolution of extreme right parties on economic axis in Denmark, Sweden and Norway between 1975 and 2015. The x-axis indicates year while the y-axis the percentage of right-wing proposals. We can observe that in all the three countries, the extreme right parties ideologically converged over time towards the economic center. While during the 1970s and 1980s, the Danish and Norwegian Progress Parties cultivated anti-tax libertarian economic policies, the 1990s brought a swing towards an economic moderation and acceptance of welfare state. One of the possible reasons for this change may be the economic crisis of 1990s.

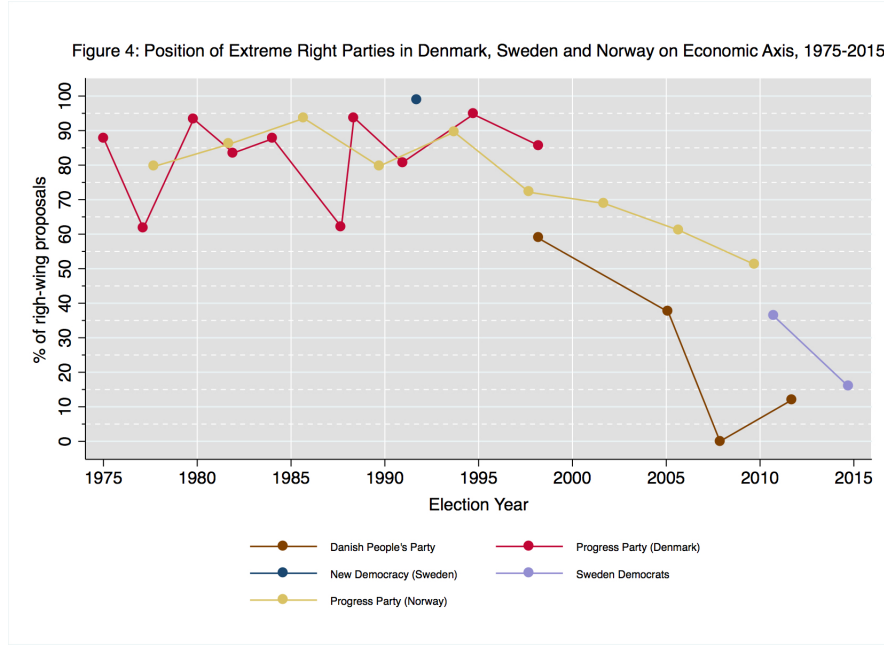
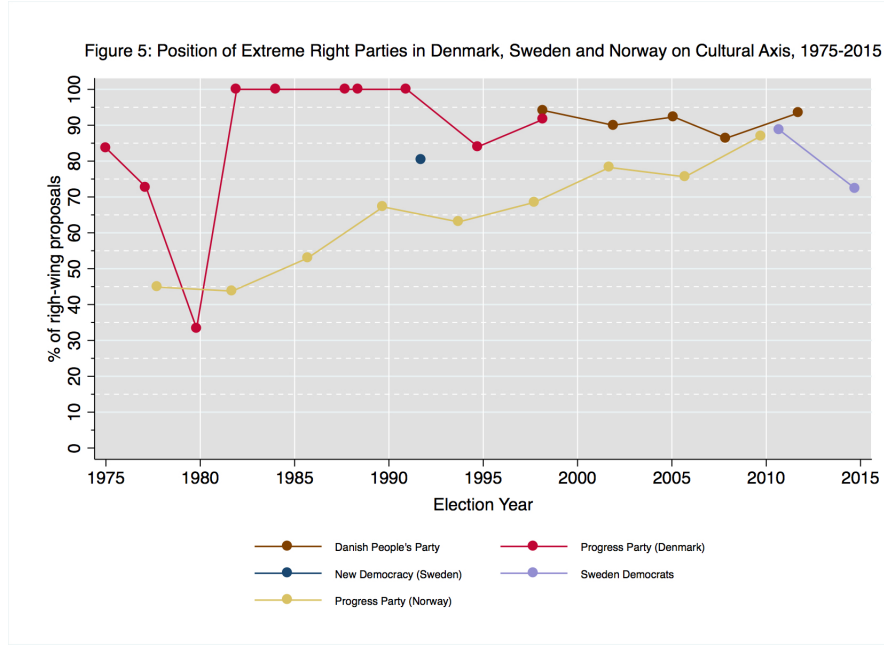


Figure 5 shows ideological positions of extreme right parties on cultural axis between 1975 and 2015. In all the three countries, we can find the parties at the extreme-right edge of the political spectrum. As it was explained above, the Norwegian Progress Party experienced a gradual radicalization of its cultural stances, most importantly when it comes to immigration. Its ideological move from an economically libertarian anti-tax party towards a culturally authoritarian anti-immigration party is well documented in the existing literature (Betz, 1994; Ignazi, 2003). The Danish Progress Party seems to hold quite extreme positions on ideological axis already since the 1980s. These positions were continued by the Danish People's Party and later on joined by Sweden Democrats in Sweden.



4 Analysis

This study builds on the theory of new cleavage based on values (Kriesi, 2010). It evaluates the dynamics of electoral support for political parties in Scandinavia that hold opposite views on the cultural dimension: the liberal and extreme right parties. The analysis thus covers the Progress Party/Danish People's Party and the Danish Social Liberal Party in Denmark; the Progress Party and the Liberal Party in Norway; and the New Democracy/Sweden Democrats and the Liberal Party in Sweden.

It first analyzes the changes in socio-economic heterogeneity of the electorate of these two groups of parties in Denmark, Sweden and Norway. Then, it presents the results of series of logistic regressions that were conducted in order to analyze the impact of different socio-economic variables on predicting the vote for extreme right and liberal parties over time. When analyzing the social structure of the electorate, a special emphasis is put on education, that is considered to highly influence individuals' cultural values (Stubager, 2013).

4.1 A note on self-reported vote

First of all, it is important to briefly mention problems related to the discrepancy between the self-reported vote and the actual electoral results, a situation that is far from being rare (Anderson Silver, 1986). The gap between the vote as it is reported in the elections survey and the actual electoral results is 0,3-0,5 percentage points in the case of mainstream parties and around maximum four percentage points in the case of small or niche parties. The ten elections included in this paper, however, contain the smallest gap between the actual and the self-reported vote. Also, a higher rate of non-responses can increase the variance and thus put higher demand on confidence intervals, the elections analyzed in this paper thus has the lowest possible proportion of non-responses.

However, often and particularly in Sweden, the vote for the extreme rights parties was during several years close to zero. Thus, it was not possible to include all the survey years in all countries into our analysis. Therefore, I rather focused on these time periods that were the most promising in order to obtain a methodologically relevant and factually interesting analysis of change in extreme right parties' and liberal parties' electorate over time.

4.2 Years of analysis

In Denmark, the analysis starts with the 1975 election in which the Danish Progress Party obtained 13.6 percent of the total vote (the self-reported vote for that year is 12.7 percent) and compared it with three other elections over time: 1988 (9 percent of the vote, 8.4 percent self-reported), 2001 (12 percent of the vote, 11.8 percent self-reported), and 2011 (12.3 percent of the vote, 8.6 percent self-reported). The electoral support for the Danish Social Liberal Party during this period was 11.2 percent of the vote (15 percent self-reported) in 1975; 5.6 percent of the vote (5.5 percent self-reported) in 1988; 5.2 percent of the vote (5.5 percent self-reported) in 2001; and 9.5 percent of the vote (11.5 percent self-reported) in 2011.

When it comes to Sweden, I had to restrain our analysis on only two election years because in other elections the support for the New Democracy and Sweden Democrats remained around 1 percent of the vote and thus was not sufficiently high to provide a relevant basis for the analysis. In 1991, the vote for the New Democracy was 6.7 percent of the vote (7.1 percent self-reported) and in 2010, the support for Sweden Democrats reached 5.7

percent of the vote (3.8 percent self-reported). The electoral support for the Liberal Party was 9.1 percent of the vote (9.2 percent self-reported) in 1991 and 6.6 percent of the vote (7.4 percent self-reported) in 2010.

In Norway, the time-span and years of the analysis approach these of Denmark. The analysis starts in 1973 when the newly created Progress Party (known under the name of Anders Lange's Party) obtained 5 percent of the vote (4 percent self-reported) and compared it with three other elections over time: 1989 (9 percent of the vote, 11 percent self-reported), 1997 (12 percent of the vote, 11.2 percent self-reported), and 2013 (12.3 percent of the vote, 12.2 percent self-reported). The electoral support for the Liberal Party during this period was 2.3 percent of the vote (2.8 percent self-reported) in 1973; 3.9 percent of the vote (4 percent self-reported) in 1989; 4.5 percent of the vote (4.7 percent self-reported) in 1997; and 5.2 percent of the vote (7.4 percent self-reported) in 2013.

4.3 The socio-economic homogeneity of the electorate

The first hypothesis postulates that if the new value-based cleavage materialized, the electorate of the political parties that compete over the cultural axis should become increasingly homogeneous over time when it comes to socio-economic characteristics and in particular to the level of education. In order to explore this hypothesis, I first describe the changes of socio-economic characteristics such as age, gender, education and level of income of extreme right and liberal parties over time. Then, we focused on the change in dispersion of these characteristics over time.

First, when it comes to age, we could observe that in Denmark, the electorate of extreme right parties (Progress/Danish People Party) became increasingly "older" over time. During the 1970s, individuals in their twenties were slightly over-represented among the electorate of the extreme right parties compared to the electorate as a whole (20.4 percent compared to 16.5 percent in 1975; significant at 0.01 level, Cramer's $V = 0.1094$). Also, people in their sixties and seventies were under-represented among the extreme right voters (12.5 percent compared to 17.3 percent in the whole population; significant at 0.01 level, Cramer's $V = 0.1094$).

However, this trend has been reversed over time. Since the 2000s, the younger generation became under-represented among the extreme right supporters and the older generation over-represented (28.6 percent compared

to 16.2 percent in the population as a whole in 2011; significant at 0.000 level, Cramer's $V = 0.1449$). Finally, the electorate of the Liberal Party in Denmark has always been slightly younger compared to the population as a whole and we could not observe major change over time.

A comparable tendency can be observed in Norway. During the 1970s, the electorate of the extreme right Progress Party was much younger compared to the population as a whole (39.5 percent of the Progress party's electorate was in their twenties compared to 20.1 of the population of a whole in 1973; significant at 0.000 level, Cramer's $V = 0.1294$). However, since the 2000s, it is the older generation that became slightly over-represented (21.2 percent of the Progress party electorate in 2011 were in their sixties compared to 18.3 percent of the population as a whole in 2013; significant at 0.000 level, Cramer's $V = 0.0989$). Once again, the electorate of the Liberal party tends to be younger compared to the population as a whole during the observed period.

Finally, in Sweden, the electorate of extreme right New Democracy and Sweden Democrats is slightly younger compared to the population as a whole while the electorate of the Liberal Party approximately mirrors the general population.

Second, with regards to gender, it can be observed that in all the three countries and over the whole observed period women are highly under-represented among the electorate of extreme right parties. This tendency becomes even more pronounced over time. Also, over time, women are increasingly more over-represented among the electorate of liberal parties in Denmark. While men currently constitute 62 percent of the extreme-right electorate in Denmark, 72 percent in Sweden, and 63 percent in Norway, women constitute 56.7 percent of liberal parties' voters in Denmark. In Sweden and Norway, the vote for liberal parties is relatively equally distributed among women and men, women representing 53.1 percent of the liberal parties' electorate in Sweden and 51.4 percent in Norway.

Third, the study is interested in the level of education of extreme right and liberal parties' voters over time. The tendencies are once again relatively comparable among the three countries. While highly educated voters have always been over-represented in the electorate of liberal parties, the extreme right parties' electorate in Denmark and Norway has become less educated compared to the population as a whole over time. For instance

in 1973 in Norway, 10 percent of the Progress Party's electorate had Gymnasium or University education compared to 9.5 percent of the population as a whole (significant at 0.000 level, Cramer's $V = 0.2485$) while in 2013, 41.90 percent of Progress Party's electorate had Gymnasium or University education compared to 53.8 percent of the population as a whole (significant at 0.000 level, Cramer's $V = 0.1300$). In Sweden, both in 1991 and 2010, the electorate of New Democracy and Sweden Democrats was significantly less educated compared to the rest of the population.

Finally, we observed the level of income among the extreme rights and liberal parties' voters over time. Given the ideological evolution of the extreme right parties in Norway and Denmark, we expected the voters with higher to be over-represented among the parties' electorate in the early years of the existence of the parties and to become rather under-represented over time. The results nuance these expectations. While both voters with very high and very low income are under-represented among the extreme right electorate we observe an over-representation of middle low and middle high income voters during the 1970s and 1980s. Since the 1990s, the very low income voters became slightly over-represented among the electorate of the extreme right parties in both countries compared to the general population.

In Sweden, the information about the level of income is available only for 2011 election and we can clearly observe an over-representation of low income voters among the electorate of Sweden Democrats (19.8 percent compared to 11.3 percent in the population; significant at 0.000 level, Cramer's $V = 0.1377$). Tables 1, 2 and 3 indicate detailed results for each country separately.

Table 1: Socio-economic characteristics of the electorate, Denmark 1975-2011

Year		1975			1988			2001			2011		
Party		Lib. P.	Pr. P.	Tot.	Lib. P.	Pr. P.	Tot.	Lib. P.	D. P.P.	Tot.	Lib. P.	D. P.P.	Tot.
Age	twenties	12.2	20.1	16.5	25.9	21.4	21.9	16.4	15.2	15.2	21	14.3	20.3
	thirties	34.2	17.4	19.1	19.3	15.8	19.1	25	23.8	20.5	30.1	13.7	17.7
	forties	13.4	21.5	20.2	17.8	14.3	17	21.2	16.2	19	21.9	12.5	18.7
	fifties	14.6	26.4	24.2	15.6	14.3	14.1	13.5	16.7	19.3	14.7	17.9	17.2
	sixties	23.2	12.50	17.32	12.6	17.9	15.1	15.4	16.2	14.1	8.9	28.6	16.2
	seventies+	2.4	2.08	2.56	8.9	16.3	12.8	8.6	11.9	11.2	3.1	13.1	9.9
		Cramer's V = 0.1094 **			Cramer's V = 0.1594 ***			Cramer's V = 0.0944 ***			Cramer's V = 0.1449 ***		
Gender	Men	58.8	53.5	52.8	51.9	58.1	46.9	43.3	64.3	52.5	43.3	61.9	48.8
	Women	48.2	46.5	47.2	48.2	42.9	53.1	56.8	35.8	47.5	56.7	38.1	51.2
		Cramer's V = 0.0601			Cramer's V = 0.0843			Cramer's V = 0.1494 ***			Cramer's V = 0.1475 ***		
Education	Primary	61.3	59.9	59.8	18.5	43.9	36.4	3.9	24.9	18.4	1.5	22.50	10.6
	Secondary	12.5	12.7	12.01	11.9	20.9	16	25.4	15.8	17.6	18.4	49.4	33.3
	Profes.	20	21.7	21.5	33.3	29.6	30.3	25	32.1	33	6.3	11.3	9.9
	Gym/Uni	6.3	5.7	6.7	36.3	5.61	17.2	61.5	17.7	31	73.9	16.9	46.2
		Cramer's V = 0.0815			Cramer's V = 0.2273 ***			Cramer's V = 0.1798 ***			Cramer's V = 0.2127 ***		
Income	Very Low	5.97	9.30	12.07	5.98	12.26	12.52	5.94	13.27	10.86	8.63	13.51	10.02
	Low	19.40	13.18	16.00	14.53	26.45	21.98	12.87	18.88	12.53	17.26	27.03	19.63
	Middle Low	20.90	17.83	21.30	22.22	21.29	21.38	29.70	29.08	28.10	18.27	20.95	22.46
	Middle High	32.84	31.01	26.20	14.53	10.97	10.72	22.77	27.55	28.05	19.80	20.95	20.53
	High	16.42	22.48	18.55	23.08	20.00	19.63	10.89	7.65	13.91	17.77	13.51	17.09
	Very High	4.48	6.20	5.89	19.66	9.03	13.77	17.8	3.57	6.55	18.27	2.70	10.27
		Cramer's V = 0.0971			Cramer's V = 0.1101 ***			Cramer's V = 0.1010 ***			Cramer's V = 0.1260 ***		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 2: Socio-economic characteristics of the electorate, Sweden 1991 and 2010

Year		1991			2010		
Party		Liberal Party	New Dem.	Total	Liberal. Party	Sweden Dem.	Tot.
Age	twenties	31.65	34.91	24.76	14.12	38.46	18.06
	thirties	17.89	19.53	17.04	15.25	9.89	16.97
	forties	19.72	20.12	20.96	23.16	16.48	18.22
	fifties	15.60	10.06	14.64	12.43	8.79	17.43
	sixties	8.72	10.65	13.33	22.60	18.68	17.89
	seventies+	6.42	10.65	13.33	12.43	7.69	11.44
		Cramer's V = 0.0939 **			Cramer's V = 0.1203 ***		
Gender	Men	47.25	62.13	51.12	46.89	72.53	50.06
	Women	52.75	37.87	48.88	53.11	27.47	49.94
		Cramer's V = 0.1232 ***			Cramer's V = 0.1521 ***		
Education	Primary	13.27	25.61	30.21	6.94	22.22	12.95
	Secondary	10.43	19.51	16.13	6.94	15.28	10.52
	Profes.	19.43	26.83	18.15	12.50	20.83	15.00
	Gym/Uni	56.87	28.05	35.51	73.61	41.67	61.52
		Cramer's V = 0.1935 ***			Cramer's V = 0.1794 ***		
Income	Very Low	-	-	-	9.60	19.78	11.31
	Low	-	-	-	11.86	20.88	17.30
	Middle Low	-	-	-	28.81	31.87	31.29
	Middle High	-	-	-	20.90	19.78	22.41
	High	-	-	-	28.81	7.69	17.68
					Cramer's V = 0.1377 ***		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 3: Socio-economic characteristics of the electorate, Norway 1973 and 2013

Year		1973			1989			1997			2013		
Party		Lib. P.	Pr. P.	Tot.	Lib. P.	Pr. P.	Tot.	Lib. P.	Pr. P.	Tot.	Lib. P.	Pr. P.	Tot.
Age	twenties	13.56	39.51	20.11	31.25	41.10	24.81	7.06	12.06	11.02	22.94	20.11	17.29
	thirties	10.17	18.52	15.60	22.50	17.35	20.69	7.06	11.56	12.20	12.84	9.50	13.21
	forties	20.34	18.52	18.56	20.00	13.70	19.39	31.76	16.58	19.40	24.77	21.23	21.51
	fifties	25.42	17.28	21.27	13.75	10.96	13.36	17.65	19.60	20.98	18.35	17.32	20.69
	sixties	16.95	6.17	15.46	5.00	12.33	12.61	15.29	20.60	21.54	13.76	21.23	18.31
	seventies+	13.56	0.00	9.01	7.50	4.57	9.14	21.18	19.60	14.85	7.34	10.61	8.99
		Cramer's V = 0.1294 **			Cramer's V = 0.1415 ***			Cramer's V = 0.1139 ***			Cramer's V = 0.0989 ***		
Gender	Men	50.85	60.49	51.99	58.75	62.56	49.87	57.65	62.81	51.97	48.62	63.13	50.44
	Women	49.15	39.51	48.01	41.25	37.44	50.13	42.35	37.19	48.03	51.38	36.87	49.56
		Cramer's V = 0.1507 ***			Cramer's V = 0.1199 ***			Cramer's V = 0.1589 ***			Cramer's V = 0.1587 ***		
Education	Primary	38.98	31.25	41.82	15.00	26.61	32.61	7.14	19.07	18.38	4.59	12.85	8.25
	Secondary	23.73	27.50	24.25	21.25	37.16	26.16	17.86	30.41	23.26	9.17	21.79	12.75
	Profes.	16.95	31.25	24.39	10.00	13.30	13.05	33.33	35.05	33.18	11.01	23.46	25.15
	Gym/Uni	20.34	10.00	9.54	53.75	22.94	28.18	41.67	15.46	25.18	75.23	41.90	53.85
		Cramer's V = 0.0815			Cramer's V = 0.2273 ***			Cramer's V = 0.1798 ***			Cramer's V = 0.2127 ***		
Income	Very Low	8.47	6.33	9.18	10.39	12.92	9.34	15.48	9.95	7.98	8.33	8.86	7.95
	Low	18.64	11.39	13.08	3.90	9.57	8.01	10.71	14.14	15.32	9.38	16.46	13.71
	Middle Low	16.95	8.86	14.51	20.78	30.62	28.33	25.00	35.08	26.29	31.25	33.54	28.64
	Middle High	16.95	20.25	25.22	23.38	26.32	26.79	19.05	20.42	24.30	19.79	20.89	22.80
	High	16.95	31.65	24.53	23.38	12.44	17.03	19.05	10.99	15.32	16.67	10.76	16.59
	Very High	22.03	21.52	13.47	18.18	8.13	10.50	10.71	9.42	10.80	14.58	9.49	10.30
		Cramer's V = 0.1601 ***			Cramer's V = 0.1287 ***			Cramer's V = 0.1430 ***			Cramer's V = 0.0984 ***		

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

To illustrate the evolution of socio-economic characteristics of extreme right and liberal parties' electorate over time in the three counties, a series of box plot graphs is presented. The figures indicate the median, the second and third quarter, the lower and upper adjacent value, and outside values.

Figures 6, 7 and 8 show the evolution electorate of the Danish Progress Party/Danish People's Party and the Danish Social Liberal Party when it comes to age, level of education and level of income over time. The middle line indicates the median and the lower and upper hinge the 25th and 75th percentile. Since we work with categorical variables these are the only statistics that can be relatively relevant for our purpose.

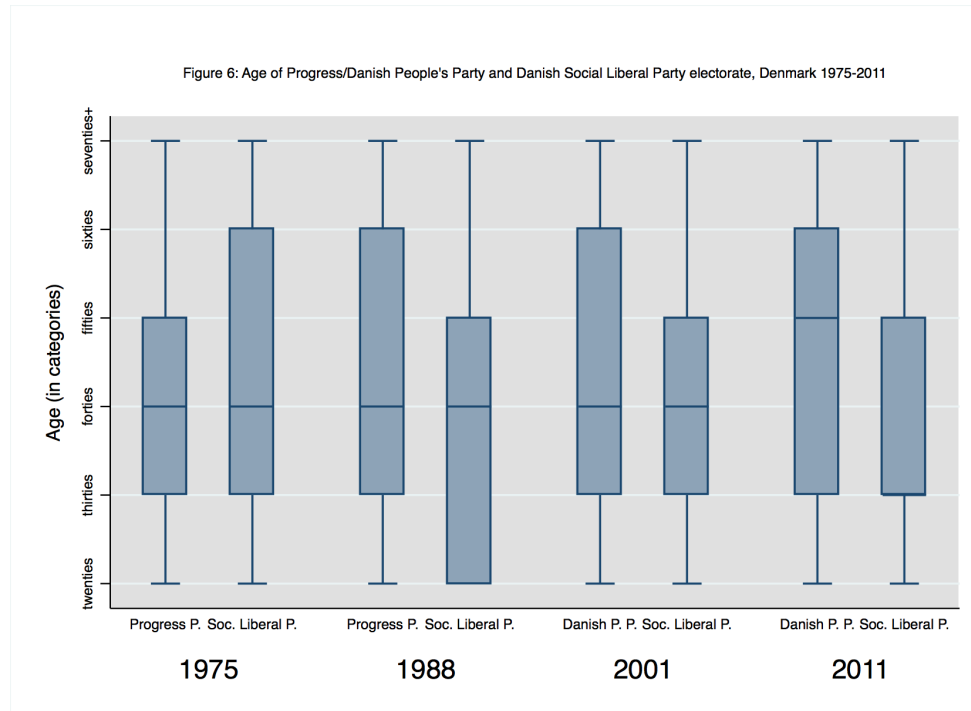


Figure 6 shows that that when it comes to age, in 2011, the median for Progress Party/Danish People's party voters moved towards the category "fifties" while the median age of the Liberal Party voters towards "thirties". This is in line with the statistics on age of the two electorates that we described previously. However, we cannot observe any "homogenization" of the electorate.

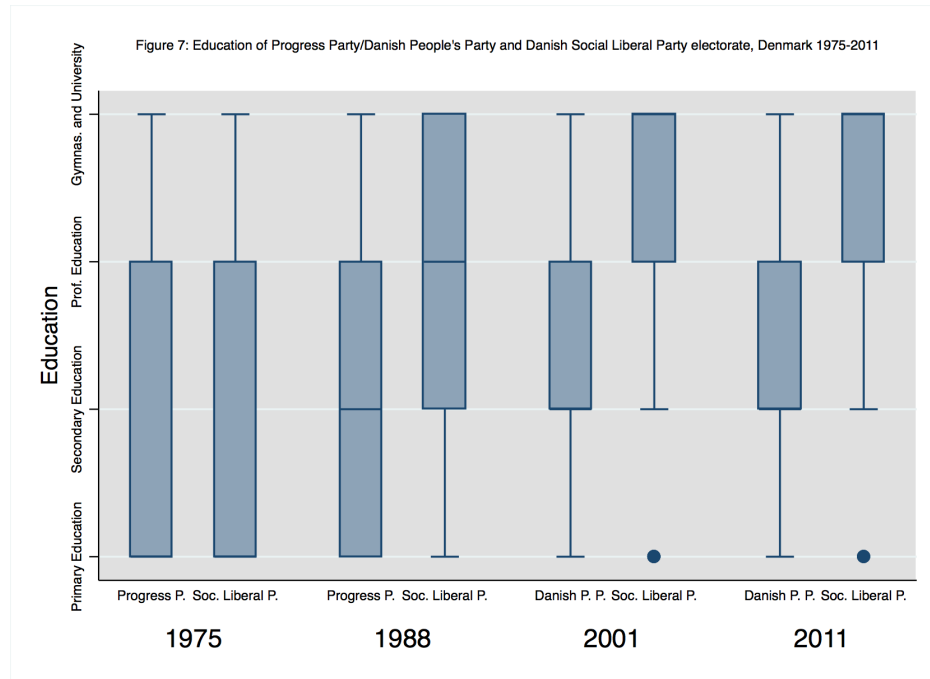
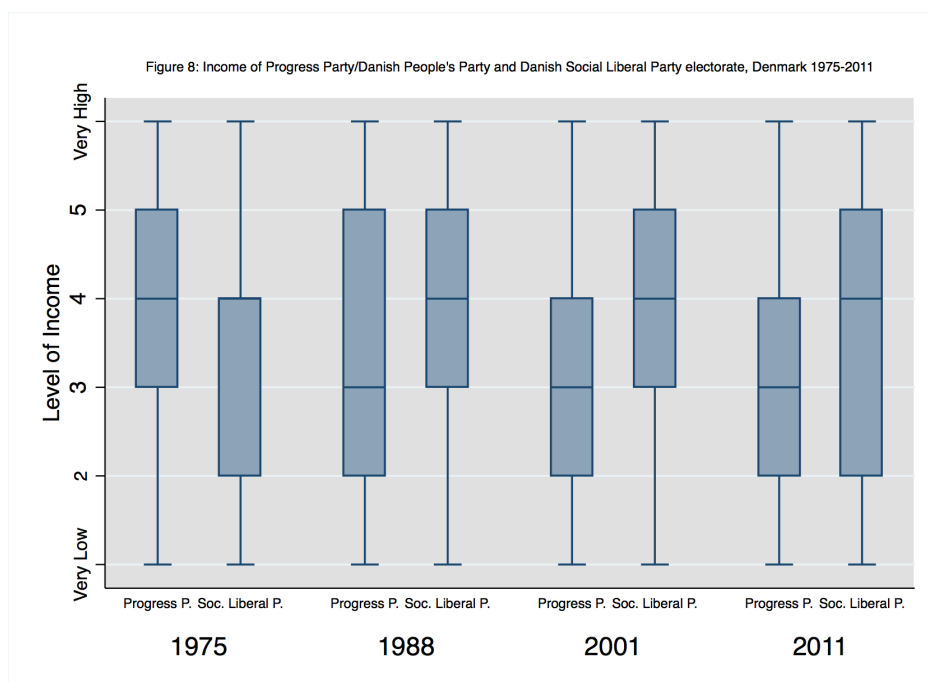


Figure 7 seems to tell a slightly different story. The median level of education follows the general tendency in the population as a whole and increases over time for both the Progress Party and the Social Liberal Party voters. The level of education significantly differs between two groups: the median level of education for the Progress Party/Danish People's Party voters in 1988, 2001 and 2011 is secondary education, while for the Social Liberal Party, it is Professional Education in 1988 and Gymnasium or University Education in 2011. Both of the electorates also seem to become increasingly homogeneous over time when it comes to the level of education.

Finally, Figure 8 shows the evolution in the level of income of the two electorates. The results confirm our previous findings on the decrease in the level of income of the Progress party/Danish People's Party electorate. Also, compared to the Progress party/Danish People's Party electorate, the voters of Social Liberal Party seem to have higher median income. However, we can not observe any homogenization in the level of income of the two electorates over time.



In Sweden, only the two years when the New Democracy and Sweden Democrats obtained more than 2 percentage of the total vote (1991 and 2010) were included in the analysis. The data on income in 1991 are not available and thus it was not possible to follow the evolution of the electorate's income over the two years. Thus, only figures for age and level of education are provided.

Figure 9 indicates the changes in median age of the electorate of the Liberal Party and the New Democracy/Sweden Democrats compared between 1991 and 2010. It indicates that while the median age of Liberal Party voters remained "forties" during the both periods, the median age of New Democracy/Sweden Democrats voters went up from "thirties" to "forties". We do not observe any homogenization over time, on the contrary, the electorate of Sweden Democrats in 2010 seem to me more heterogeneous when it comes to age compared to 1991.

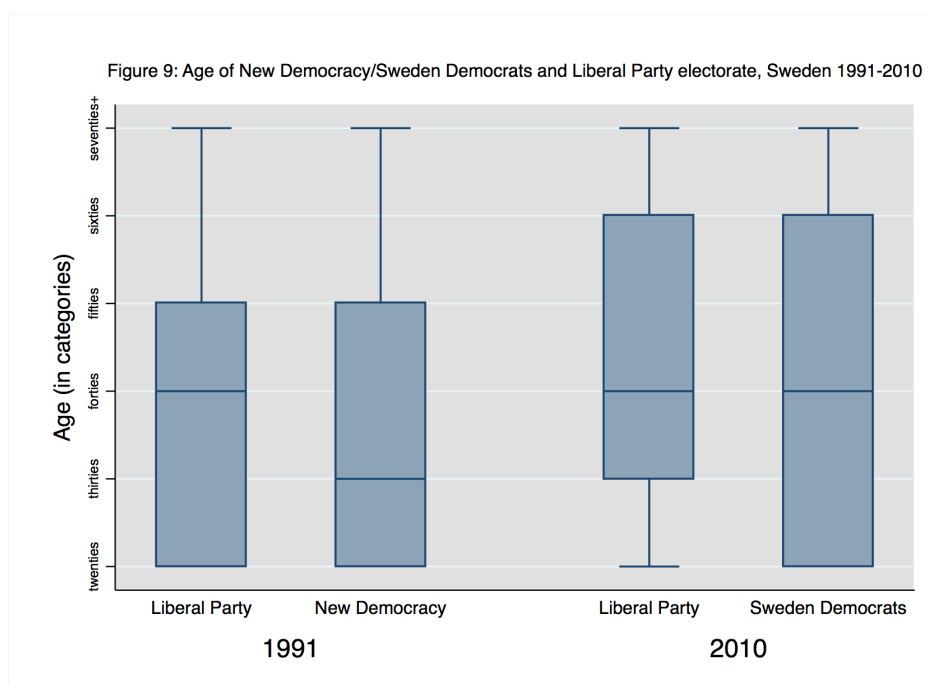
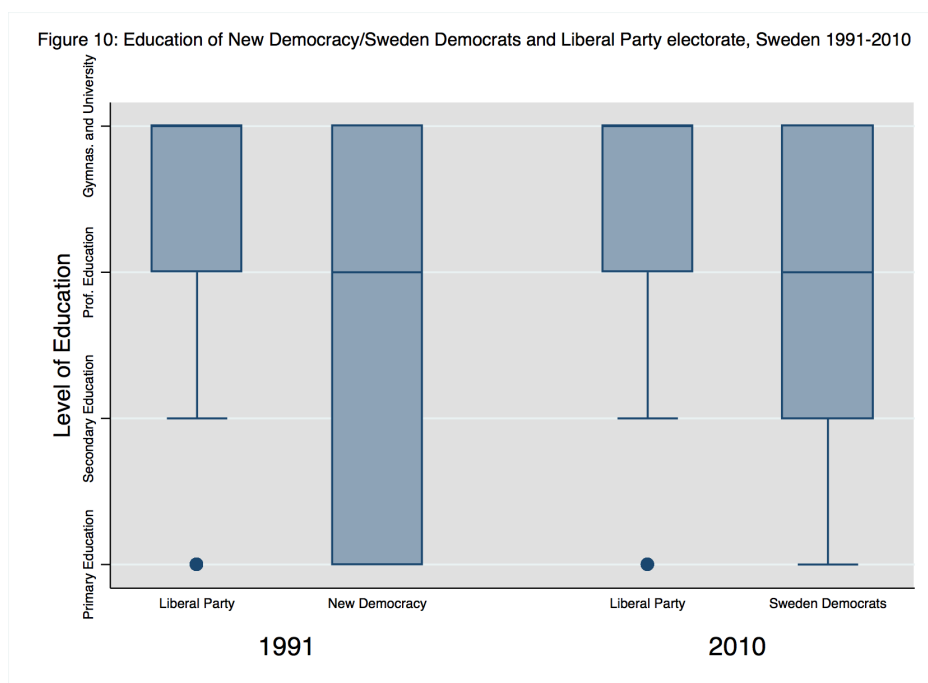


Figure 10 compares the level of education of the electorate of the Liberal Party and the New Democracy/Sweden Democrats in Sweden in 1991 and 2010. The figure is in line with our previous findings concerning the level of education and its evolution among these two groups. While the Liberal Party voters have on median gymnasium or university level education both in 1991 and 2010, the New Democracy/Sweden Democrats voters have mostly professional education.



In addition, we evaluated the evolution of age, education and income of the electorate of the Liberal Party and the Progress Party in Norway between 1973 and 2013. Figure 11 indicates the evolution in age of the two electorates. The evolution seems to show a certain fluctuation rather than to indicate development into a distinct direction. This is also to an certain extent given by the character sample since the 1989 survey contains higher proportion of younger individuals compares to other survey years. Nevertheless, when it comes to our first hypothesis, it is important to note that there does not seem to be any tendency towards homogenization.

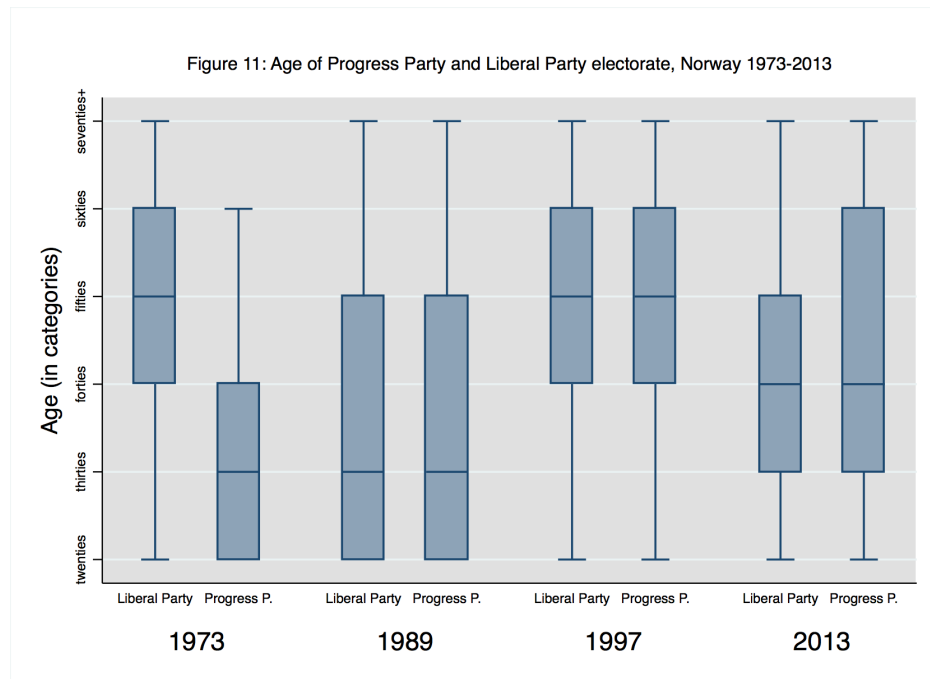
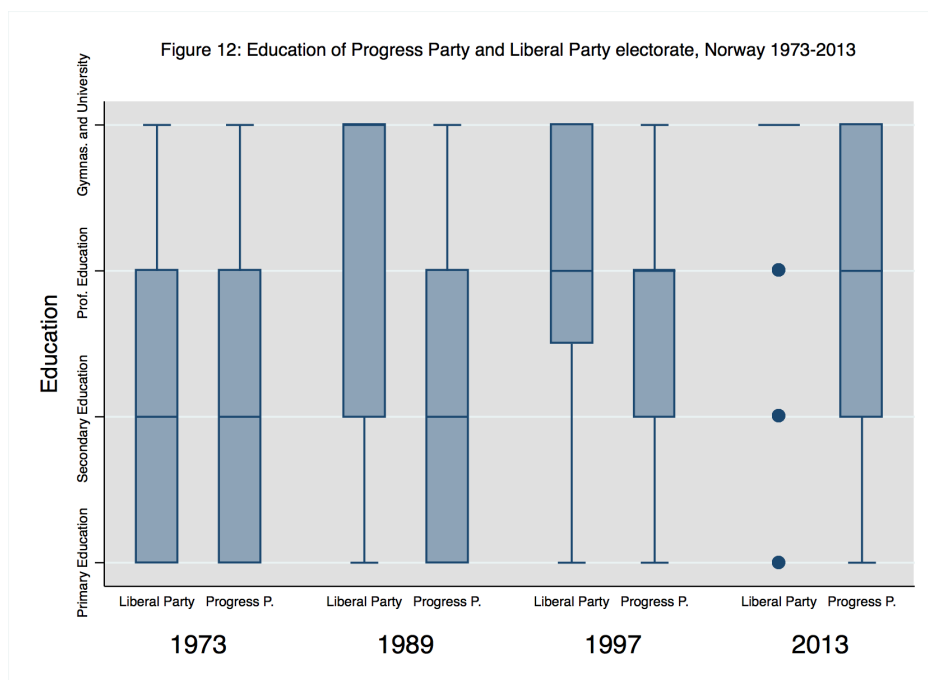
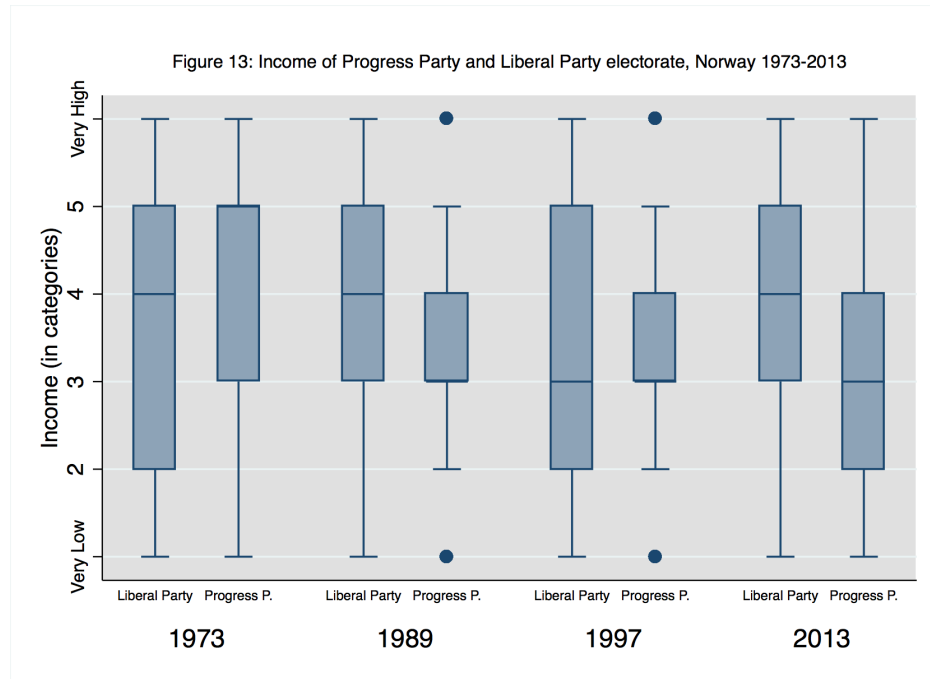


Figure 12 illustrates changes in median level of education of the Liberal Party and the Progress Party in Norway between 1973 and 2013. It is in line with our previous findings and indicate that the two electorates differ importantly when it comes to the level of education. When it comes to the Liberal Party, we also observe a certain convergence over time towards the highest level of education that could potentially be considered as "homogenization". However, the median for the Progress Party in 1997 and 2013 remains at the level of "professional education".



Finally, Figure 13 shows the evolution in the median level of income of the Liberal Party and the Progress Party electorate in Norway between 1973 and 2013. It indicates that while the median income of the Liberal Party's electorate remained at a relatively high level during the whole observed period, the median income of Progress Party's voters went drastically down from point 5 in 1973 indicating high income to point 3 in 2013 indicating Middle Low income. We also observe a certain level of homogenization of income for both groups of the electorate, but the tendency is not systemic.



These exploratory findings indicate that the first hypothesis, that postulates that the electorate of the extreme right and liberal parties should become increasingly homogeneous with regard to different socio-economic characteristics over time, can be confirmed only partially. While in the case of Norway and Denmark, the Liberal's Party electorate has become increasingly homogeneous with regard to the level of education over time, the same does not hold true for Sweden nor for extreme right parties. Nevertheless, the findings are insightful once we compare the Progress Party's electorate with the population of voters as a whole. They suggest that the seemingly

stable homogeneity in the level of education of the extreme right party's voters might in fact indicate that the parties are increasingly able to collect the votes of individuals with lower levels of education.

4.4 Predicting the vote for extreme right and liberal parties

In order to evaluate the role of different socio-economic characteristics, in particular the level of education, in predicting the probability to vote for extreme right and liberal parties, I conducted for each country series of logistic regressions with vote for the extreme right or the liberal party as a dependent variable, the survey year as an independent variable. I also included interactions between the survey year and the level of education into our model.

Table 4 indicates the probability to vote for the Progress Party and the Danish People's Party in the 1975, 1988, 2001 and 2011 elections in Denmark. It focuses primarily on the interaction between the year of election and the level of education and controls for different socio-economic variables such as gender, age and the level of income. We observe then when controlling for other variables, the effect of level of education is not significant in 1975. However, we can observe that the probability associated to the vote for the extreme right parties in 2011 is almost two times higher for individuals with primary education in comparison to individuals the same level of education in 1975.

In addition, the effect of gymnasium or university level of education on the probability to vote for the Progress Party decreases over time. While voters with gymnasium or university level education in 1988 were three times less likely to vote for extreme right parties than in 1975, gymnasium and university educated individuals are almost six times less likely to vote for extreme right parties in 2011 than in 1975.

Finally, income, age and gender plays a role we would expect from our preliminary analysis. In 1975, individuals with very high level, women and individuals in their seventies were almost half as likely to vote for the Progress Party than individuals with very low income, men and these in their twenties.

Table 4: Logistic Regression: Vote for Progress/Danish People's Party, Denmark 1975-2011

Model	1	2	3	4	5	6
Education (Primary Ed.)						
2. Secondary Ed.	1.073 (0.11)	1.105 (0.12)	1.110 (0.13)	1.071 (0.13)	0.954 (0.13)	0.808 (0.28)
3. Professional Ed.	0.768 (0.08)*	0.809 (0.09)	0.843 (0.10)	0.823 (0.10)	0.747 (0.10)*	0.918 (0.24)
4. Gymnasium/University	0.325 (0.04)***	0.324 (0.05)***	0.341 (0.05)***	0.316 (0.05)***	0.272 (0.05)***	0.716 (0.30)
Income (Very Low)						
2. Low		1.033 (0.16)	0.968 (0.15)	0.995 (0.15)	1.027 (0.16)	1.000 (0.16)
3. Middle Low		0.903 (0.14)	0.817 (0.13)	0.797 (0.12)	0.821 (0.13)	0.795 (0.13)
4. Middle High		1.061 (0.17)	0.955 (0.15)	0.891 (0.14)	0.922 (0.16)	0.891 (0.15)
5. High		0.868 (0.15)	0.775 (0.13)	0.799 (0.14)	0.855 (0.16)	0.816 (0.15)
6. Very High		0.632 (0.14)*	0.562 (0.13)*	0.618 (0.14)*	0.665 (0.16)	0.621 (0.15)*
Gender (Men)						
1. Women			0.677 (0.06)***	0.686 (0.06)***	0.683 (0.06)***	0.686 (0.06)***
Year (1975)						
1988				0.655 (0.09)**	0.681 (0.09)**	0.688 (0.13)*
2001				1.100 (0.14)	1.195 (0.17)	1.259 (0.26)
2011				0.938 (0.14)	1.032 (0.16)	1.790 (0.43)*
Age (Twenties)						
2. Thirties					0.849 (0.12)	0.846 (0.12)
3. Forties					0.689 (0.11)*	0.698 (0.11)*
4. Fifties					0.731 (0.11)*	0.738 (0.12)
5. Sixties					0.776 (0.12)	0.744 (0.12)
6. Seventies+					0.728 (0.14)	0.667 (0.13)*
2. Sec. Ed. × 1988						1.356 (0.56)
2. Sec. Ed. × 2001						1.268 (0.52)
2. Sec. Ed. × 2011						0.698 (0.30)
3.Prof. Ed. × 1988						0.948 (0.31)
3.Prof. Ed. × 2001						0.722 (0.24)
3.Prof. Ed. × 2011						0.537 (0.22)
4. Gym/Uni × 1988						0.322 (0.18)*
4. Gym/Uni × 2001						0.488 (0.24)
4. Gym/Uni × 2011						0.166 (0.09)***
Observations	7310	6337	6336	6336	6293	6293

Prob > chi2 = 0.0000; Pseudo R2 = 0.0459; Log likelihood = -1930.0695

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5: Logistic Regression: Vote for Danish Social Liberal Party, Denmark 1975-2011

Model	1	2	3	4	5	6
Education (Primary Ed.)						
2. Secondary Ed.	1.368 (0.23)	1.523 (0.28)*	1.523 (0.28)*	1.473 (0.28)*	1.373 (0.28)	1.260 (0.55)
3. Professional Ed.	1.506 (0.23)**	1.533 (0.27)*	1.537 (0.27)*	1.725 (0.31)**	1.689 (0.32)**	0.996 (0.35)
4. Gymnasium/University	4.253 (0.56)***	4.343 (0.66)***	4.358 (0.66)***	4.358 (0.74)***	4.145 (0.78)***	1.013 (0.51)
Income (Very Low)						
2. Low		1.677 (0.36)*	1.669 (0.36)*	1.638 (0.36)*	1.559 (0.35)*	1.560 (0.35)*
3. Middle Low		1.550 (0.32)*	1.541 (0.32)*	1.588 (0.33)*	1.459 (0.32)	1.463 (0.32)
4. Middle High		1.520 (0.32)*	1.510 (0.32)	1.528 (0.33)*	1.414 (0.32)	1.420 (0.32)
5. High		1.426 (0.31)	1.415 (0.31)	1.401 (0.31)	1.291 (0.30)	1.304 (0.30)
6. Very High		2.103 (0.47)***	2.086 (0.46)***	2.060 (0.46)**	1.898 (0.46)**	1.989 (0.48)**
Gender (Men)						
1. Women			0.980 (0.10)	0.976 (0.10)	0.976 (0.10)	0.958 (0.10)
Year (1975)						
1988				0.681 (0.12)*	0.695 (0.12)*	0.446 (0.13)**
2001				0.550 (0.10)***	0.563 (0.10)**	0.211 (0.11)**
2011				1.054 (0.18)	1.094 (0.20)	0.287 (0.18)*
Age (Twenties)						
2. Thirties					1.374 (0.21)*	1.359 (0.21)*
3. Forties					1.022 (0.17)	0.999 (0.17)
4. Fifties					1.010 (0.18)	1.013 (0.18)
5. Sixties					1.194 (0.22)	1.283 (0.24)
6. Seventies+					0.833 (0.21)	0.976 (0.25)
2. Sec. Ed. \times 1988						1.284 (0.72)
2. Sec. Ed. \times 2001						1.700 (1.27)
2. Sec. Ed. \times 2011						3.102 (2.33)
3. Prof. Ed. \times 1988						2.212 (0.99)
3. Prof. Ed. \times 2001						3.164 (2.05)
3. Prof. Ed. \times 2011						4.205 (3.13)
4. Gym/Uni \times 1988						4.289 (2.46)*
4. Gym/Uni \times 2001						9.111 (6.59)**
4. Gym/Uni \times 2011						11.98 (9.32)**
Observations	7310	6337	6336	6336	6293	6293

Prob > *chi*² = 0.0000; Pseudo R² = 0.0712; Log likelihood = -1554.7569

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 5 is comparable to Table 4 and evaluates the probability to vote for the Danish Social Liberal Party. We can observe that the effect of level of education alone when controlled for other socio-economic variables is not significant. However, it becomes significant once in interaction with the survey year. We can also observe that individuals with gymnasium or university level education are four times more likely to vote for the Danish Social Liberal Party in 1988 than in 1975. The probability of this groups of voters to vote for the Danish Social Liberal Party raises to nine times in 2001 compared to 1975 and almost twelve times in 2011 compared 1975.

Table 6: Logistic Regression: Vote for New Democracy/Sweden Democrats, Sweden 1991 and 2010

Model	1	2	3	4	5
Education (Primary Ed.)					
2. Secondary Ed.	1.242 (0.26)	1.258 (0.26)	1.315 (0.28)	1.245 (0.26)	1.389 (0.35)
3. Professional Ed.	1.401 (0.27)	1.400 (0.27)	1.506 (0.29)*	0.890 (0.19)	1.028 (0.25)
4. Gymnasium/University	0.610 (0.11)**	0.629 (0.11)**	0.743 (0.14)	0.461 (0.10)***	0.596 (0.14)*
Gender (Men)					
1. Women		0.555 (0.08)***	0.549 (0.08)***	0.550 (0.08)***	0.553 (0.08)***
Year (1991)					
2010			0.574 (0.09)***	0.705 (0.11)*	1.281 (0.40)
Age (Twenties)					
2. Thirties				0.555 (0.11)**	0.568 (0.12)**
3. Forties				0.474 (0.10)***	0.486 (0.10)***
4. Fifties				0.280 (0.07)***	0.282 (0.07)***
5. Sixties				0.351 (0.09)***	0.345 (0.09)***
6. Seventies+				0.259 (0.08)***	0.247 (0.08)***
2. Sec. Ed. \times 2010					0.597 (0.29)
3. Prof. Ed. \times 2010					0.516 (0.23)
4. Gym/Uni \times 2010					0.408 (0.16)*
Observations	4140	4140	4140	4140	4140
<i>Prob</i> > <i>chi</i> ² = 0.0000; Pseudo R ² = 0.0564; Log likelihood = -854.09773 * <i>p</i> < 0.05, ** <i>p</i> < 0.01, *** <i>p</i> < 0.001					

Table 6 presents the probability to vote for the New Democracy and Sweden Democrats in the 1991 and 2010 elections in Sweden. The variable of income could not be included since it is not available for the 1991 elections. We can observe that when controlling for other socio-economic variables such as gender and age only the highest level of education is significant in 1991: individuals with gymnasium or university level of education are half as likely to vote for the New Democracy in 1991 than individuals with primary education.

Also, this effect becomes more important over time. The interaction between the level of education and election year indicates that individuals with gymnasium or university level of education in 2010 were half as likely to vote for the extreme right party than individuals with the same level of education in 1991.

Table 7: Logistic Regression: Vote for Liberal Party, Sweden 1991 and 2010

Model	1	2	3	4	5
Education (Primary Ed.)					
2. Secondary Ed.	1.414 (0.35)	1.411 (0.35)	1.463 (0.36)	1.531 (0.38)	1.583 (0.47)
3. Professional Ed.	2.187 (0.47)***	2.188 (0.47)***	2.323 (0.50)***	2.855 (0.65)***	3.214 (0.86)***
4. Gymnasium/University	3.077 (0.55)***	3.061 (0.55)***	3.524 (0.65)***	4.266 (0.84)***	4.877 (1.11)***
Gender (Men)					
1. Women		1.096 (0.12)	1.093 (0.12)	1.102 (0.12)	1.105 (0.12)
Year (1991)					
2010			0.646 (0.08)***	0.607 (0.07)***	0.954 (0.36)
Age (Twenties)					
2. Thirties				0.887 (0.16)	0.896 (0.16)
3. Forties				1.203 (0.20)	1.223 (0.21)
4. Fifties				1.109 (0.21)	1.126 (0.22)
5. Sixties				1.395 (0.28)	1.402 (0.28)
6. Seventies+				1.722 (0.39)*	1.704 (0.39)*
2. Sec. Ed. \times 2010					0.796 (0.43)
3. Prof. Ed. \times 2010					0.600 (0.29)
4. Gym/Uni \times 2010					0.592 (0.24)
Observations	4140	4140	4140	4140	4140

Prob > chi2 = 0.0000; Pseudo R2 = 0.0343; Log likelihood = -1169.7769
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 7 indicates the probability to vote for the Liberal Party in the 1991 and 2010 Swedish elections. We can observe that the effect of level of education plays an important role in prediction the vote in 1991. When controlling for age and the level of income, individuals with professional education were three times more likely to vote for the Liberal Party compared to individuals with primary education. The likelihood increases even to individuals being five times more likely to vote for the Liberal Party if they have obtained gymnasium or university level of education rather than primary education. However, it is important to note that the interaction between the level of education and the year of election is not significant.

Table 8: Logistic Regression: Vote for Progress Party, Norway 1973-2013

Model	1	2	3	4	5	6
Education (Primary Ed.)						
2. Secondary Ed.	1.799 (0.21)***	1.741 (0.21)***	1.765 (0.21)***	1.543 (0.19)***	1.321 (0.17)*	1.268 (0.39)
3. Professional Ed.	1.338 (0.16)*	1.419 (0.18)**	1.398 (0.17)**	1.161 (0.15)	1.070 (0.14)	1.412 (0.42)
4. Gymnasium/University	1.129 (0.13)	1.203 (0.15)	1.196 (0.15)	0.791 (0.11)	0.691 (0.10)**	1.020 (0.43)
Income (Very Low)						
2. Low		0.893 (0.16)	0.902 (0.16)	0.859 (0.15)	0.917 (0.17)	0.922 (0.17)
3. Middle Low		1.068 (0.16)	1.040 (0.16)	0.913 (0.14)	1.040 (0.17)	1.056 (0.17)
4. Middle High		0.729 (0.12)*	0.702 (0.11)*	0.697 (0.11)*	0.844 (0.15)	0.858 (0.15)
5. High		0.600 (0.10)**	0.567 (0.10)**	0.634 (0.11)**	0.790 (0.15)	0.794 (0.15)
6. Very High		0.748 (0.14)	0.730 (0.14)	0.835 (0.16)	1.065 (0.22)	1.050 (0.21)
Gender (Men)						
1. Women			0.599 (0.05)***	0.593 (0.05)***	0.602 (0.05)***	0.603 (0.05)***
Year (1973)						
1989				3.195 (0.45)***	3.177 (0.45)***	3.114 (0.78)***
1997				3.043 (0.44)***	3.367 (0.49)***	3.848 (1.06)***
2013				3.852 (0.59)***	4.214 (0.65)***	8.295 (2.71)***
Age (Twenties)						
2. Thirties					0.572 (0.08)***	0.571 (0.08)***
3. Forties					0.557 (0.08)***	0.569 (0.09)***
4. Fifties					0.532 (0.08)***	0.543 (0.08)***
5. Sixties					0.602 (0.09)***	0.609 (0.09)**
6. Seventies+					0.572 (0.09)***	0.576 (0.10)**
2. Sec. Ed. . × 1989						1.152 (0.42)
2. Sec. Ed. × 1997						1.062 (0.41)
2. Sec. Ed. × 2013						0.652 (0.29)
3. Prof. Ed. × 1989						0.997 (0.38)
3. Prof. Ed. × 1997						0.751 (0.28)
3. Prof. Ed. × 2013						0.332 (0.14)**
4. Gym/Uni × 1989						0.849 (0.40)
4. Gym/Uni × 1997						0.556 (0.28)
4. Gym/Uni × 2013						0.374 (0.19)
Observations	7268	6913	6913	6913	6913	6913

Prob > chi2 = 0.0000; Pseudo R2 = 0.0548; Log likelihood = -1993.9704

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 8 indicates the probability to vote for the Progress Party in the 1973, 1989, 1997 and 2013 general elections in Norway. Once again, it focuses on the interaction between the year of election and the level of education and controls for different socio-economic variables such as gender, age and the level of income.

The effect of level of education alone on the probability to vote for the Progress Party is not significant. However the analysis indicates that in 1975, individuals with gymnasium or university level of education had the same probability to vote for the Progress Party compared to individuals with Primary Education. The effect of education changes over time and in

2013, individuals with professional level of education were three time less likely to vote for the Progress Party compared to 1975. The same is true for individuals with university level of education, but the effect is, once again, not significant.

Other variables also seem to have an effect on predicting vote for the Progress Party in 1975. First, when controlling for the level of education, income and age, women in 1975 were almost half as likely to vote for the Progress Party compared to men. Also in 1975 older individuals were almost half as likely to vote for the Progress Party compared to younger voters.

Table 9: Logistic Regression: Vote for Liberal Party, Norway 1973-2013

Model	1	2	3	4	5	6
Education (Primary Ed.)						
2. Secondary Ed.	1.489 (0.30)*	1.532 (0.32)*	1.536 (0.32)*	1.447 (0.30)	1.510 (0.32)	1.065 (0.37)
3. Professional Ed.	1.450 (0.29)	1.333 (0.28)	1.328 (0.28)	1.177 (0.25)	1.198 (0.26)	0.723 (0.28)
4. Gymnasium/University	3.920 (0.66)***	3.792 (0.67)***	3.788 (0.67)***	3.151 (0.60)***	3.290 (0.65)***	2.162 (0.82)*
Income (Very Low)						
2. Low		0.749 (0.19)	0.752 (0.19)	0.707 (0.18)	0.731 (0.19)	0.753 (0.19)
3. Middle Low		0.813 (0.17)	0.809 (0.17)	0.766 (0.16)	0.806 (0.18)	0.819 (0.18)
4. Middle High		0.621 (0.14)*	0.617 (0.14)*	0.608 (0.13)*	0.645 (0.15)	0.655 (0.16)
5. High		0.708 (0.16)	0.700 (0.16)	0.711 (0.16)	0.742 (0.18)	0.755 (0.19)
6. Very High		0.830 (0.19)	0.823 (0.19)	0.854 (0.20)	0.871 (0.23)	0.913 (0.24)
Gender (Men)						
1. Women			0.894 (0.10)	0.892 (0.10)	0.893 (0.10)	0.897 (0.11)
Year (1973)						
1989				1.110 (0.20)	1.116 (0.20)	0.692 (0.25)
1997				1.388 (0.25)	1.340 (0.25)	0.744 (0.35)
2013				1.557 (0.29)*	1.511 (0.29)*	1.132 (0.71)
Age (Twenties)						
2. Thirties					0.863 (0.19)	0.845 (0.19)
3. Forties					1.337 (0.27)	1.318 (0.27)
4. Fifties					1.098 (0.23)	1.066 (0.23)
5. Sixties					0.838 (0.19)	0.802 (0.19)
6. Seventies+					1.417 (0.32)	1.319 (0.31)
2. Sec. Ed. × 1989						1.879 (0.98)
2. Sec. Ed. × 1997						1.754 (1.06)
2. Sec. Ed. × 2013						1.754 (1.34)
3. Prof. Ed. × 1989						1.996 (1.23)
3. Prof. Ed. × 1997						3.109 (1.90)
3. Prof. Ed. × 2013						1.120 (0.88)
4. Gym/Uni × 1989						1.940 (0.97)
4. Gym/Uni × 1997						1.938 (1.15)
4. Gym/Uni × 2013						1.611 (1.14)
Observations	7268	6913	6913	6913	6913	6913

Prob > chi2 = 0.0000; Pseudo R2 = 0.0486; Log likelihood = -1218.4207

* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 9 indicates the probability to vote for the Liberal Party in the 1973, 1989, 1997 and 2013 Norwegian general elections. The effects of different variables go into the predicted direction, however they are generally not significant. The only significant effect is the probability to vote for the Liberal Party in 1973 that is more than two times higher for individuals with

gymnasium or university education compared to individuals with primary education. The analysis also indicates that the effect of education is becoming increasingly important over time, however it is not significant.

All in all, the results suggest that the role of education in predicting the vote for both extreme right and liberal parties is becoming more important over time, however the effect is less pronounced in the case of Norway. Our second hypothesis thus seems to be at least partially confirmed.

5 Discussion

The aim of this study was to explore the role of education and other socio-economic characteristics when analyzing the vote for extreme right and liberal left parties in Scandinavia. The unforeseen shift in extreme right parties' ideology in the region allows to observe how the electorate reacts to this development. The preliminary findings seem to indicate that as the extreme parties' ideology becomes culturally more authoritarian over time, education becomes more important in predicting the vote for these parties. It seems that while the electorate of the extreme right parties in the region was socio-structurally and probably also ideologically more mixed when the parties emphasized anti-tax policies, the party lost some of the more liberal and educated voters over time as it became more authoritarian.

Paradoxically, we could observe that the level of education seems to become more important also in predicting the vote for liberal parties. However, this cannot be explained by changes in the ideology of these parties. Our analysis thus seem not only to indicate that voters are relatively responsive to shifts in parties' ideology, but also that the political strategy of one party can influence the party competition as a whole and enhance expression of certain societal divisions.

All in all, there may be a new cleavage on the horizon of the Scandinavia politics and a more thorough evaluation of its possible emergence should be a subject of further studies. The dataset that was created for this study was only partially exploited and much more remain to be done. I hope that the dataset will prove to be a relevant, fruitful and reliable source of information on voting behavior in Scandinavia for future research.

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