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THE IMPLICATION OF POLITICAL KNOWLEDGE ON AGGREGATE ELECTION RESULTS

A comparative study of the Swedish European Parliament in 2009 and 2014, and national parliamentary elections in 2010 and 2014

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Abstract

Political knowledge is a key concept in research on democracy, elections, and political behavior.[1] While several studies that examine political knowledge's effects on the aggregate election results have been conducted, none of them compare knowledge effects across *types* of elections. In this thesis the aim was to examine whether political knowledge affects the aggregate election results, both party-choice and turnout, differently depending on electoral contexts in terms of national parliamentary elections (first order elections) or EP elections (second order elections). I am also interested to see whether the increased politicization of the EU after 2009 registers significant knowledge effects. I use multinomial logistic regression and simulations for the 2010 and 2014 parliamentary elections and the EP elections of 2009 and 2014. The results show an increased level of political knowledge in line with the normative ideal of 'fully informed' voters does not affect the Swedish aggregate election result (party-choice) in the EP elections to a *greater* extent than in the parliamentary elections. Additionally, the results indicate that an increased level of political knowledge in line with the normative ideal of 'fully informed' voters does affect the Swedish aggregate election result (party-choice and turnout) in the EP elections after 2009 to a *lesser* extent. This result points to an increase in political knowledge about the EU, potentially as a result of the increased politicization after the euro crisis.

Keywords:	Political Knowledge, Political Information, Voting, European Parliament Elections, Swedish parliamentary elections, First- and second order elections, Sweden, 2009, 2010, 2014

[1] Bartels (1996), p.194–196; Bernhagen & Schmitt (2014), p.353; Bhatti (2010), p.392; Lau & Redlawsk (1997), p.585–586; Lau & Redlawsk (2001), p.951; Lau, Andersson & Redlawsk (2008), p.395; Oscarsson (2007), p.301-302

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List of abbreviations:

the Council	the Council of the European Union
EP	European Parliament
EU	European Union
MEPs	Members of the European Parliament
SNES	Swedish national election studies
SOE	Second-order election model

1. Introduction

Political knowledge is a key concept in research on democracy, elections, and political behavior. A politically knowledgeable electorate is often considered a prerequisite for a healthy representative democracy.[2] However, it has been shown several times that most of the citizenry does not live up to the normative ideal of a 'fully informed' voter that the classic democratic theory demands of them. Multiple decades of contemporary social science left no doubt that political knowledge is generally low.[3] This raised the question "what would happen to the election result if the citizens were better informed and had more political knowledge, i.e., more closely lived up to the normative ideal of a 'fully informed' voter?"[4]

Several studies that examine political knowledge effects on the aggregate election have been conducted. However, none of them compare knowledge effects across *types* of elections. All these studies have only investigated one type of election at the time, and all these studies are conducted before the Treaty of Lisbon entry into force, the Euro crisis, the EU enlargement, and the expansion of the European integration with more policy areas that have made the EP increasingly important and the EU more prominent and politicized.[5]

Since the political legitimacy and accountability of representative democracy are based on citizen representation, it is of scientific importance to be able to find out how democracy is doing, and whether there is a deficit in democratic representation. In order to do so, it is crucial to investigate whether political knowledge affects the aggregate election outcome differently depending on electoral contexts in terms of national parliamentary elections (first order elections) or EP elections (second order elections), and depending on whether the increased politicization of the EU after 2009 registers significant knowledge effects. Examining this is also of particular interest for at least two other reasons.

Firstly, according to the most well-established theories regarding voting behavior in the EP elections, the theory of the second-order election model (SOE) by Reif and Schmitt, there is reason to believe that the aggregate election result is affected to varying degrees depending on whether it is a first- or second order election.[6] The reason for this is that the voting behavior differs between first- and second-order elections because citizens, politicians, journalists, and activists do not perceive second-order elections as important as first-order elections.[7] This attitude thus leads to less election movement and election

[2] Bartels (1996), p.194–196; Bernhagen & Schmitt (2014), p.353; Bhatti (2010), p.392; Lau & Redlawsk (1997), p.585–586; Lau & Redlawsk (2001), p.951; Lau, Andersson & Redlawsk (2008), p.395; Oscarsson (2007), p.301-302
[3] Althaus (1998), p.545-546; Bartels (1996), p.194–197; Bernhagen & Schmitt (2014), p.353; Bhatti (2010), p.392-393; Hansen (2009), p.527-528; Lau & Redlawsk (1997), p.585–586; Lau & Redlawsk (2001), p.951; Lau, Andersson & Redlawsk (2008), p.395; Oscarsson (2007), p.301-303
[4] Althaus (1998); Bartels (1996); Bhatti (2010); Hansen (2009); Lau & Redlawsk (1997); Oscarsson (2007)
[5] Althaus (1998); Bartels (1996); Bhatti (2010); Hansen (2009); Lau & Redlawsk (1997); Oscarsson (2007)
[6] Reif & Schmitt (1980)
[7] Reif & Schmitt (1980), p. 8-9

monitoring, which in turn means that fewer eligible voters gain knowledge about the election and the extent of the EP's influence.[8]

The consequences of second-order elections are perceived as less important than first- order elections are significantly lower turnout in EP elections compared to national parliamentary elections and that voters in EP elections are highly influenced by opinions and attitudes about national issues and how national parties have performed at the national level. This led to a majority of the voters voting to assess that, instead of evaluating the EP and their work separately and independently and voting on the content or direction of EU policy and electing representatives to the EP who they consider having the best policies at that level.[9]

Research on the SOE theory in EP elections argues that the level of political knowledge and contextual political information is crucial to the extent voters base their voting in EP elections on EU issues.[10] At the same time, higher political knowledge is concentrated among those who are politically and socially advantaged. This means that the distribution of political knowledge is not only uneven in the population but also among groups with distinctive and potentially competing for political interests. This puts a risk of certain groups associated with higher political knowledge becoming disproportionately represented in the population they constitute.[11]

All this together makes a reason to believe the risk of certain groups being disproportionately represented concerning the population they constitute is greater in the EP elections than in the national parliamentary elections. Since political knowledge, contextual political information, and turnout are lower in the EP elections, this makes a reason to assume that the risk of this is greater in the EP elections than in the national parliamentary elections. Therefore, it would be interesting to explore whether an increased level of political knowledge in line with the normative ideal of 'fully informed' voters affects the aggregate election result (party-choice and turnout) in the EP elections to a greater extent than in the parliamentary elections.

Secondly, the EP has become increasingly important since 2009, not only with the EP's increasing decision-making power since the entry into force of the Treaty of Lisbon,[12] but also because the EU itself has increased in importance with the deepening and widening of European integration.[13] In addition, the Euro crisis after 2009 has made the EU more prominent and politicized.[14] Research on the SOE theory in EP elections shows that a higher degree of politicization of the EU in the domestic debate provides the voters with more contextual political information on European issues and the political

[8] Clark (2014), 343
[9] Reif & Schmitt (1980), p.8-10
[10] Hobolt & Spoon (2012), p.701-709, 717, 719
[11] Althaus (1998), p.547
[12] Hix & Høyland (2011), p.130-131
[13] Clark & Rohrschneider (2009), p.646-647; de Vries, van der Brug, van Egmond & van der Eijk (2011), p.17
[14] Miklin (2014), p.1199-1200

parties' positions on these. Voters with a higher level of political knowledge and information have a greater propensity to vote based on EU issues.[15]

Since the access to both political knowledge and contextual political information on EU issues has increased since 2009, there is reason to assume that also the distribution of political knowledge has become less uneven in the population and among groups with distinctive and potentially competing political interests.[16] Therefore, it would be interesting to explore whether an increased level of political knowledge in line with the normative ideal of 'fully informed' voters affects the aggregate election result (party-choice and turnout) in the EP elections after 2009 to a lesser extent.

To study the impact of political knowledge on the aggregate election results and evaluate whether they vary between different electoral contexts, the Swedish parliamentary elections in 2010 and 2014, and the Swedish EP election in 2009 and 2014 have been chosen as the case of interest. Sweden is an interesting context to study this relationship, for in Sweden, citizens' knowledge levels are known to be high and evenly distributed.[17] However, at the same time, there is a large knowledge gap among citizens in terms of opportunities for influence on all the issues that are affected by the EU level. The state public inquiry: *EU på hemmaplan: Betänkande av Utredningen om delaktighet i EU (EU at home: Report of the Inquiry on participation in the EU,* author's translation) stated that a majority of the voters do not know the EU system very well and which issues are affected by the EU level. The voters also have insufficient knowledge to be able to discuss EU decisions and are rather uninformed about political decisions made at the EU level and how they relate to politics in Sweden.[18]

In sum, the main findings of this thesis are: first, an increased level of political knowledge in line with the normative ideal of 'fully informed' voters does not affect the Swedish aggregate election result (party-choice) in the EP elections to a *greater* extent than in the parliamentary elections. Secondly, the results also indicate that an increased level of political knowledge in line with the normative ideal of 'fully informed' voters does affect the Swedish aggregate election result (party-choice and turnout) in the EP elections after 2009 to a *lesser* extent. This result points to an increase in political knowledge about the EU, potentially as a result of the increased politicization after the euro crisis.

[15] Hobolt & Spoon (2012), p.701-709, 717, 719
[16] Althaus (1998), p.547¸ Hansen (2009), p.526
[17] Oscarsson (2007), p.302
[18] SOU 2016:10. p.10, 50-74

1.1 Aim and research question

The thesis aims to examine whether the level of political knowledge of the Swedish voting population affects the aggregate election result (party-choice and turnout) differently on electoral contexts in terms of national parliamentary elections (first order elections) or EP elections (second order elections) and depending on if the EP election took place after the increased politicization of the EU after 2009, based on the European Parliament elections in 2009 and 2014, and the national parliamentary elections in 2010 and 2014.

The research question is: do political knowledge effects on the aggregate election result vary between different types of electoral contexts, such as level and year?

1.2 Outline

The thesis is structured accordingly. In the next chapter, previous research and theoretical frameworks related to political knowledge and voting behavior in first- and second-order elections are presented. The chapter concludes with a presentation of the hypotheses guiding the study. The choice of case, material selection, method, and operationalization can be found in chapter three. Thereafter comes a chapter on the results from the multinomial logistic regressions and these simulated elections with changed factual political knowledge levels. In chapter five, an analysis of the results is provided. The thesis is concluded with a chapter on conclusions and suggestions for future research. In addition to this, an appendix is attached with the detailed multinomial logistic regressions results.

2. Previous research and theoretical framework

This chapter is divided into four sections. The first section will provide an overview of the research on political knowledge and party-choice. The second section will provide an overview of the European Parliament elections and the differences in voters' voting behavior in European Parliament elections compared to national elections. The third section describes the research gap and the fourth and final section connects the previous section to the thesis's hypotheses.

2.1 Political knowledge and party-choice

Political knowledge and information are key concepts in research on democracy, elections, and political behavior. A politically knowledgeable electorate is often considered a prerequisite for a healthy representative democracy.[19] However, it has been shown several times that most of the citizenry does not live up to the normative ideal of a 'fully informed' voter that the classic democratic theory demands of them. Multiple decades of contemporary social science left no doubt that political knowledge is generally low,[20] especially regarding second-order elections such as the EP election.[21]

During the 1980s, the scientific debate gradually shifted its focus from information levels to information processing.[22] The main argument is that rational and reasoning citizens do not need to be well-informed to make fairly rational and reasonable voting choices. Instead, rational and reasoning citizens, individually and collectively, can successfully compensate for a lack of political knowledge. By skillfully using partial and incomplete political information provided by so-called cognitive heuristics, they can figure out what they need to know about how to view political issues and parties at election time to make decisions as if they were informed.[23] Voters can rely on a wide variety of cognitive heuristics such as ideology, social groups endorsement (social class, region, ethnicity, religion, etc.) party identification, retrospective performance, candidate appearance, public opinion polls, etc.[24]

Another popular argument against the belief that level of knowledge is crucial is based on the idea of statistical aggregation of individual preferences. The bottom line of the statistical aggregation argument is that the aggregate decisions eliminate individual erroneous voting choices. The statistical aggregation argument is based on Condorcet's jury theorem, which mathematically demonstrated that the probability of a correct majority vote in a group of individuals with a moderate level of political knowledge increases substantially when the size of the group increases. The logic behind it is that the flawed individual judgments and choices are randomly distributed in the electorate and therefore, cancel out

[19] Bartels (1996), p.194–196; Bernhagen & Schmitt (2014), p.353; Bhatti (2010), p.392; Lau & Redlawsk (1997), p.585–586; Lau & Redlawsk (2001), p.951; Lau, Andersson & Redlawsk (2008), p.395; Oscarsson (2007), p.301-302
[20] Althaus (1998), p.545-546; Bartels (1996), p.194–197; Bernhagen & Schmitt (2014), p.353; Bhatti (2010), p. 392-393; Hansen (2009), p. 527-528; Lau & Redlawsk (1997), p.585–586; Lau & Redlawsk (2001), p.951; Lau, Andersson & Redlawsk (2008), p.395; Oscarsson (2007), p.301-303
[21] SOU 2016:10. p.10, 50-74
[22] Page & Shapiro (1992); Popkin (1991); Sniderman, Brody & Tetlock (1991)
[23] Althaus (1998), p.546; Bartels (1996), p.197; Bernhagen & Schmitt (2014), p.353; Hansen (2009), p.527; Oscarsson (2007), p.303-304
[24] Bartels (1996), p.197; Bernhagen & Schmitt (2014), p.354; Oscarsson (2007), p.305

each other. Because some voters who, for example, vote for a left-wing party, if they had higher political knowledge, would vote for a right-wing party and vice versa. In this way, the overall election result can be significantly more informed and enlightened than the individual votes that make them up.[25]

During the 1990s, the link between political knowledge level and vote choice became a more prominent area in electoral behavior research. Researchers began to question whether it was possible to compensate for the lack of political knowledge, and the question "What would happen to the election result if the citizens were better informed and had more political knowledge, i.e., more closely lived up to the normative ideal of a 'fully informed' voter?" became relevant again. This question has been the subject of intensive empirical research by several researchers in election behavior research. [26]

The results of these empirical studies show evidence that uninformed voters cannot fully compensate for a lack of political knowledge. Neither by skillful using cognitive heuristics nor that the aggregate decisions eliminate individual erroneous voting choices.[27]

2.1.1 Proving cognitive heuristics wrong

Bartels and Althaus find evidence in their respective studies on American national elections that voters can to some extent compensate for lack of knowledge by using cognitive heuristics, but not to that extent they can be compared as "full-informed".[28] Lau and Redlawsk suspect in their study on the subject, that all voters may not use cognitive heuristics equally effectively, and ask themselves whether cognitive heuristics is to advantage or disadvantage of political decision-making.[29] They, therefore, made a new study to address this question.

In that study, Lau and Redlaswk find that almost all voters employ cognitive heuristics and that they are particularly likely to be used when information is presented via a more cognitively difficult format. They also find that group endorsement and ideology have the largest correlation with knowledge of the five examined heuristics: party affiliation; ideology; group endorsement; viability (based on polls); and candidate appearance.[30] Moreover, Lau and Redlaswk's greatest finding is that only in combination with sophistication, use of cognitive heuristic help to improve decision making, and only in combination with the use of cognitive heuristic does sophistication help to improve decision making. It is a two-way interaction. This means that the use of cognitive heuristics for relatively sophisticated voters generally increases the likelihood of voting according to what their fully informed preferences and interests would be by 20 percent, but for relatively unsophisticated voters that employ those same cognitive heuristics generally decrease the likelihood of voting according to what their fully informed preferences and

[25] Bernhagen & Schmitt (2014) 353; Bhatti (2010) 393; Oscarsson (2007) 303; Bartels (1996) 199; Hansen (2009) 527; Althaus (1998) 546
[26] Althaus (1998); Bartels (1996); Bhatti (2010); Hansen (2009); Lau & Redlawsk (1997); Oscarsson (2007)
[27] Althaus (1998); Bartels (1996); Bhatti (2010); Hansen (2009); Lau & Redlawsk (1997); Oscarsson (2007)
[28] Althaus (1998), p.553-554; Bartels (1996), p.217
[29] Lau & Redlawsk (1997), p.594
[30] Lau & Redlawsk (2001), p.958–962

interests would be by almost 21 percent. This concludes that cognitive heuristics did not substitute for political sophistication in predicting correct voting.[31]

Lau and Redlaswk's conclusion is supported by Oscarsson that based on Swedish national elections, concludes that factual political knowledge levels per se have no direct effects on voting behavior. Since higher political knowledge in itself does not lead to a preference for a specific party, instead, the different subgroups prefer different parties when the level of knowledge is raised. For instance, in most of the examined elections, the upper third of the most knowledgeable working-class voters had a significantly higher tendency to vote for the Social Democrats than the under two-thirds of working-class voters. However, among middle-class voters, the probability of voting for the Social Democrats decreased with more factual knowledge. The conclusion that Oscarsson draws from this is that knowledgeable voters are better at using class and ideology as information shortcuts. Because the more knowledgeable the voters are, the better they are ideologically oriented and more in touch with their self-interest, as well as better at assessing the pros and cons of party politics.[32]

2.1.2 Proving statistical aggregation wrong

On top of the fact that cognitive heuristics require political knowledge to be used in a way that increases the likelihood of voting according to what their fully informed preferences and interests would be, statistics aggregation does not work. Because the basic precondition for the statistical aggregation theory is not met — the flawed individual choices are not randomly distributed in the electorate because the knowledge in the population is not evenly distributed.[33]

Althaus claims political knowledge is concentrated among those who are politically and socially advantaged, such as highly educated and wealthy. This means that the distribution of political knowledge also is uneven among groups with distinctive and potentially competing political interests. "For instance, whites tend to be more informed than blacks, men more than women, and older people more than younger people." This tendency toward uneven levels of political knowledge causes a biased collective preference and leaves the groups well-educated, affluent, men, whites, and middle-aged disproportionately influential concerning the population they are to represent.[34] Not only because less informed people can come to a different choice than if they were fully informed, but also because less informed people are more likely to abstain from voting.[35] This means that politics will reflect the needs, desires, and values of whites better than blacks, men better than women and the rich better than the poor.[36]

[31] Lau & Redlawsk (2001), p.964, 966–967
[32] Oscarsson (2007), p.312–314
[33] Althaus (1998); Bartels (1996); Bhatti (2010); Hansen (2009); Lau & Redlawsk (1997); Oscarsson (2007)
[34] Althaus (1998), p.546
[35] Hansen (2009), p.526
[36] Althaus (1998), p.547

2.2 Voting behavior in European Parliament elections

The EP is the only institution in the EU that is directly elected by the EU citizens. Since 1979, Members of the EP (MEPs) have been elected by direct universal suffrage for a term of five years. The introduction of the 1952 institution's direct election is, therefore, a very important part of the EU's history. Since then, the power of the EP has been expanded with each treaty. In December 2009, the latest treaty - the Treaty of Lisbon entered into force after being signed two years before. With that, the Ordinary Legislative Procedure was introduced which gives the EP half the legislative power in all policy areas except, e.g., foreign and security policy.[37] The outcome of the EP elections thus has large implications for politics in the EU. In the EP elections, the MEPs are elected in their respective member states by their respective countrymen. In the EP, these MEPs organize themselves based on political domicile into party groups consisting of parties from different Member States that are ideologically similar. The larger the party group in the EP, the greater its influence over politics in the EP and the EU.[38]

The political legitimacy and accountability of the EP lie in the participation of citizens in the elections. However, election after election, the EP elections are characterized by a significantly lower turnout compared to national parliamentary elections for almost all EU member states.[39] Research has also shown that EP elections are largely influenced by opinions and attitudes about national issues and how national parties have performed at the national level, instead of voters evaluating the EU, the European Parliament, and their work individually and independently and choosing representatives of the European Parliament who considered themselves to have the best policy at that level.[40] The purpose of the direct elections—to improve the legitimacy of the EU by creating a clear link between the EU and the EU citizens with the ambition to increase the salience of the EP in EU politics and the interest of the EU among the EU citizens. In other words, - remedying the debate on the EU's democratic deficit thus has not been fulfilled.[41]

2.2.1 Second-order election model theory

One of the most well-established theories regarding voting behavior in EP elections is the second order election model (SOE) by Reif and Schmitt. The theory of SOE, which was launched in 1980, after the very first EP elections in 1979, distinguishes between first-order elections, such as national parliamentary elections and presidential elections, and second-order elections, which are all other elections such as EP elections, regional elections, and local elections. The main element in the SOE theory is that the voting behavior differs between first- and second-order elections because citizens,

[37] Hix & Høyland (2011), p.130-131
[38] Viola (2016), p.27-29
[39] Clark, N. (2014), p.339
[40] Clark & Rohrschneider (2009), p. 658-660; Reif & Schmitt (1980), p. 8-10
[41] Marsh & Mikhaylov (2010), p.5

politicians, journalists, and activists simply do not perceive second-order elections as important as first-order elections.[42]

The reason why the EP elections are assumed to be less important is, according to Reif and Schmitt, that citizens, politicians, journalists, and activists consider less at stake. The reasons for that are that EP elections deal with issues that are expected to be less important to voters' everyday lives. Welfare policies, law and order, taxation, unemployment, housing, pensions, and many other issues affecting the direct lives of voters are decided primarily at the national level.[43] Furthermore, the result of the European Parliament elections does not lead to the formation of a government, and still, the national governments of the Member States through the Council of the European Union (Council) have greater power than the European Parliament.[44] Although most of the laws are adopted through co-decision procedure, there are still policy areas where the EP only has a consultative function, and the Council has the decision-making authority. This attitude leads to less election campaign and election monitoring, which in turn means fewer eligible voters gain knowledge about the election, and the extent of the Parliament's influence.[45]

The consequence of fewer being considered at stake and fewer voters having knowledge of the election is, according to Reif and Schmitt, that the EP election will be a simultaneous national election. This means, the majority of the voters vote intending to assess how the national parties have performed at the national level and the national government has managed its commitments instead of electing representatives to the EP and voting on the content or direction of EU policy.[46] Clark and Rohrschneider refer to this as the transfer hypothesis. Namely, there is a great "transfer" of opinions and attitudes about how national parties have performed at the national level to the EU level and the EP elections. The explanation for this, Clark and Rohrschneider claim, is the structure of the EP elections. There is no real European election. National parties play a key role in the European elections by electing candidates for the European Parliament and holding election campaigns for the European Parliament. This inevitably leads to national issues and how the national parties have performed at the national level being linked to the election to the EP, which then becomes a midterm election.[47]

The fact that less is considered at stake and that the EP election therefore is treated as a midterm election leads to small and new parties performing better, while large and government parties perform worse in EP elections compared with first-order elections.[48] There are several reasons for voters switching parties between first- and second-order elections. Reif and Schmitt suggest that some voters use their vote in EP elections as a tool to show dissatisfaction against their government by switching support to other

[42] Reif & Schmitt (1980), p. 8-9
[43] Reif & Schmitt (1980), p 8-9
[44] Reif & Schmitt (1980), p.12
[45] Clark (2014), 343
[46] Reif & Schmitt (1980), p.8-10
[47] Clark & Rohrschneider (2009), p. 658-660
[48] Reif & Schmitt (1980), p.9-10

parties. They claim that even some who generally support the government and do not fundamentally change their party allegiance will do so to apply pressure on the government to do better. This type of voting switching has been referred to as a protest vote or voting "with the boot".[49] Another cause Reif and Schmitt suggest is that voters are more prone to strategic voting in first-order elections and may vote for a party that is perceived as being more optimally suitable for the government. "Possibly due to the reputation of that party, its size or its general coalition potential". Which means it may not be the party closest to the voter's ideological stance. On the other hand, since no government is at stake in EP elections, voters are instead more prone to sincere voting and feel freer to express their true preferences and vote for the party that represents the voter's opinion more precisely.[50]

2.2.2 Alternative explanations to the SOE theory

For the last 40 years, the SOE theory has been tested, developed, and criticized by many subsequent scholars. Even though the SOE theory has proven to be accurate in several studies and no scholars reject the theory as a whole, scholars have nevertheless emphasized the importance of other alternative explanations for the SOE theory.[51]

One of the aspects that has led to the questioning of the SOE theory is that a lot has changed since Reif and Schmitt (1980) wrote the theory. Not only has the EP's influence on EU policy increased with the Treaty of Lisbon, but the EU has also increased in importance as European integration has both deepened and widened with more policy areas and member states. The EU citizens are increasingly affected in their daily lives by the EU, which has led to some of the predictions in SOE theory being challenged.[52] The EU's level of politicization has also increased, especially in recent decades, as a result of major events that have put focus on the EU level, such as the Euro crisis and the Crimean conflict. Hobolt and Spoon argue that the degree of politicization of the EU in the domestic debate conditions the extent voters consider EU issues rather than national ones when voting. Which is explained by the "politicization of the EU not only makes the EU issue more salient but also provides information about party positions on EU issues."[53]

That politicization of the EU is crucial to voting on Eu issues is supported by De Vries, van der Brug, van Egmond, and van der Eijk who claim that EU issue voting is more prominent among politically sophisticated citizens. In addition, they claim that what really makes the difference is contextual political information. Because while the degree of political sophistication in a population only slightly increases EU issue voting, it is clear that higher levels of political information on European matters more extensively increase EU issue voting. Hence, the highest EU issue voting is among the politically

[49] Marsh & Mikhaylov (2010), p.12
[50] Marsh & Mikhaylov (2010), p.11-13
[51] Carrubba &Timpone (2005); Clark & Rohrschneider (2009); de Vries, van der Brug, van Egmond & van der Eijk (2010); Hobolt &Spoon (2012); Marsh & Mikhaylov (2010)
[52] Clark & Rohrschneider (2009), p.646-647; de Vries, van der Brug, van Egmond & van der Eijk (2010), p.17
[53] Hobolt & Spoon (2012), p.701-709, 717, 719

sophisticated citizens who live in contexts where media attention and party conflicts regarding EU issues are high. In other words, contextual political information mediates and amplifies EU issue voting.[54]

Another aspect that has led to the questioning of the SOE theory is the theory drawing conclusions about behavior at the individual level based on observations at the aggregate level. Clark and Rohrschneider argue that there may be several explanations at the individual level for voters voting as they do, and not examining them can lead to erroneous conclusions. A remarkable example of this is that the same consequences shown in the SOE theory could be due to the opposite of the theory's conclusion—that voters do believe that the EU is important and care about the EP elections. That voters actually evaluate the EU and its work individually and regardless of how national parties have performed at the national level and choose to vote for a party they believe has the best policy at that level, no matter what they think has the best policy at the national level. Which may be a different party than what they think has the best policy at the national level.[55]

This to the SOE theory's opposite cause of voter switching is supported in several studies and would explain the success of Green parties and Eurosceptic parties in the EP elections.[56] Carrubba and Timpone argue that voters might switch because they sincerely have different policy preferences on the EU and the national level. Environment issues are such a policy area that many voters perceive to be tackled better at the European level than at the national level. Since the environmental issues do not know state borders and different environmental policies in different member states give negative externalities, such as companies moving production to countries with less strict environmental policy.[57] While voters may perceive that certain policy issues are best addressed at the EU level, they may also perceive that other policy issues are best addressed at the national level. Hix and Marsh argue that protest voting by supporting Eurosceptic parties to express their dissatisfaction with the EU and European integration also indicates an EU-issue reason for switching votes, as it has a European dimension in EP elections and not a domestic one.[58] In addition, Hobolt and Spoon present that the higher the degree of politicization of the EU in the domestic debate, the higher the degree of sincere voting on EU issues, but no higher degree of protest voting on EU issues. Hobolt and Spoon explained this, declaring that a sincere vote on the EU dimension requires voters to have a fairly high level of information about EU policies and party positions on EU issues, while a protest vote can be held with much less information.[59]

[54] de Vries, van der Brug, van Egmond & van der Eijk (2010), p.16-17, 19-20
[55] Clark & Rohrschneider (2009), p.646
[56] Carrubba &Timpone (2005); Clark & Rohrschneider (2009); de Vries, van der Brug, van Egmond & van der Eijk (2010); Hobolt & Spoon (2012); Marsh & Mikhaylov (2010);
[57] Carrubba &Timpone (2005), p.279
[58] Hix & Marsh (2007), p.495, 498
[59] Hobolt & Spoon (2012), p.717

2.3 Political knowledge effects on party-choice in first- and second-order elections

The vast majority of studies on political knowledge effects on the aggregate election results have been conducted in the United States presidential election, namely, in first-order elections in a two-party system.[60] An example of such a study is Bartel's groundbreaking study in which he revealed that on average the incumbent president did 5 percent better, and the Democrats' candidates almost 2 percentage points better than they would if all voters in the presidential election were fully informed.[61]

In recent years, several studies have been conducted in a European multi-party system context, but even then, in almost exclusively first-order elections.[62] For instance, in Nordic national elections, Oscarsson and Hansen found in their respective studies that Social Democrats would lose support if general knowledge levels increased. The Swedish study by Oscarsson indicates that the aggregated gains for right-wing parties if the voters were fully informed was an average of 2.1 percentage points during the period from 1985 to 2002, and in two elections, 1994 and 2002, the outcome would have resulted in the social democratic minority government would not have won the elections.[63] The Danish study by Hansen supports the notion that right-leaning parties tend to fare better if political knowledge increases both in the election of 1971 and 2005.[64]

Only one study on political knowledge effects on the aggregate election results in a second-order election has been conducted—Bhatti's study of the EP election 2004 in the Nordic countries. His simulations of increasing knowledge also demonstrate that the Social Democratic parties would be the big losers if the knowledge level increased.[65]

Thus, there has been no study of political knowledge effects on the overall election results of the EP elections since the entry into force of the Treaty of Lisbon, and the several crises in recent years within and in the EU's immediate area. Nor has there ever been a study of political knowledge effects on the aggregate election results that directly compares political knowledge effects on the aggregate election results in first- and second-order elections, namely the EP election in comparison with national parliamentary elections.

2.4 Hypotheses

To examine whether the level of political knowledge of the Swedish voting population affects the aggregate election result (party-choice and turnout) differently depending on electoral contexts in terms

[60] Althaus (1998); Bartels (1996); Bergbower, McClurg & Holbrook (2015); Ha & Lau (2015); Lau & Redlawsk (1997); Lau & Redlawsk (2001); Pierce & Lau (2019); Richey (2008); Robison (2021); Ryan (2011); Sinclair & Plott (2012); Sokhey & McClurg (2012); Stiers & Dassonneville (2019)
[61] Bartels (1996), p.194
[62] Blais & Kilibarda (2016); Christian (2017); Dassonneville, Nugent, Hooghe. & Lau (2020); Hansen (2009); Harteveld, Dahlberg, Kokkonen & van der Brug (2017); Lau, Patel, Fahmy & Kaufman (2013); Milic (2012); Oscarsson (2007)
[63] Oscarsson (2007), p.319
[64] Hansen (2009), p.514
[65] Bhatti (2010), p.391-392

of national parliamentary elections (first order elections) or EP elections (second order elections) and depending on if the EP election took place after the increased politicization of the EU after 2009, this thesis is based on two different testable hypotheses.

The first hypothesis is about whether political knowledge and information effects on the aggregate election results (party-choice and turnout) vary between national parliamentary (first-order elections) and EP elections (second-order elections).

There are several logical reasons for believing that an increased level of political knowledge of the Swedish voting population in line with the normative ideal of 'fully informed' voters affect the aggregate election result in the Swedish European Parliament elections to a greater extent than the aggregate election result in the Swedish national parliamentary elections.

Firstly, political knowledge is significantly lower in second-order elections, such as the EP election, than in national parliamentary elections, which are first-order elections.[66] The reason for this is that citizens, politicians, journalists, and activists do not perceive second-order elections as important as first-order elections.[67] This attitude thus leads to less election movement and election monitoring, which in turn means that fewer eligible voters gain knowledge about the election and the extent of the EP's influence.[68] This has consequences not only in terms of significantly lower turnout compared to national parliamentary elections. But also, the EP elections are greatly influenced by opinions and attitudes about national issues and how national parties have performed at the national level. This led to a majority of the voters voting to assess that, instead of evaluating the EP and their work separately and independently and voting on the content or direction of EU policy and elect representatives to the EP who they consider having the best policies at that level.[69]

Secondly, research on the SOE theory in European Parliament elections argues that contextual political information is crucial to the extent voters base their voting in EP elections on EU issues. Voters with a higher degree of political information, vote to a greater extent sincerely based on EU issues.[70] The reason for this is, as research on political knowledge and political behavior has shown, voters can to some extent compensate for a lack of political knowledge by using cognitive heuristics.[71] However, this requires that the voter already has some political knowledge,[72] and the more prior knowledge the voter possesses, the better the voter is at using cognitive heuristics to compensate for their lack of knowledge.[73] Since both political knowledge and contextual political information on EU policies are

[66] SOU 2016:10. p.10, 50-74
[67] Reif & Schmitt (1980), p. 8-9
[68] Clark (2014), 343
[69] Reif & Schmitt (1980), p.8-10
[70] Hobolt & Spoon (2012), p.717; de Vries, van der Brug, van Egmond & van der Eijk (2010), p.16-17, 19-20
[71] Althaus (1998), p.553-554; Bartels (1996), p.217
[72] Lau & Redlawsk (2001), p.964, 966–967
[73] Oscarsson (2007), p.312–314

relatively lower than those on national policies, it also makes it more difficult for the voters to compensate for the lack of knowledge by using cognitive heuristics.

Thirdly, at the same time, higher political knowledge is concentrated among those who are politically and socially advantaged. This means that the distribution of political knowledge is not only uneven in the population but also among groups with distinctive and potentially competing political interests. This puts a risk of certain groups associated with higher political knowledge becoming disproportionately represented in the population they constitute.[74] Since political knowledge and information is lower in the EP elections, this makes a reason to assume that the risk of this is greater in the EP elections than in the national parliamentary elections.[75]

As a result, the expectation is that:

H_1 An increased level of political knowledge among the Swedish electorate in line with the normative ideal of 'fully informed' voters affects the aggregate election result (party-choice and turnout) in the Swedish European Parliament elections to a greater extent than the aggregate election result in the Swedish national parliamentary elections.

[74] Althaus (1998), p.547
[75] Hansen (2009), p.526

The second hypothesis is about whether political knowledge and information effects on the aggregate election results (party-choice and turnout) vary between EP elections depending on if the EP election took place after the increased politicization of the EU after 2009.

After the year 2009, the EP has become increasingly important not only with the EP's increasing decision-making power since the Treaty of Lisbon[76], but also because the EU itself has increased in importance with the deepening and widening of European integration.[77] In addition, the Euro crisis after the same year has made the EU more prominent and politicized. The Euro crisis elevated the visibility and importance of the EU by dominating the press, requiring repeated EU summits to be managed, creating friction between different member states, and creating stereotypes, such as frugal North vs fiscally irresponsible South.[78] This has not only increased knowledge about the EU but also made it easier for voters in the subsequent elections to compensate for the lack of knowledge by using cognitive heuristics. Because, as Hobolt and Spoon claim, a higher degree of politicization of the EU in the domestic debate provides more contextual political information on European issues and the political parties' positions on these.[79] Since contextual political information mediates and amplifies EU issue voting,[80] Hobolt and Spoon argue that the degree of politicization of the EU in the domestic debate conditions the extent voters consider EU issues rather than national ones when voting. The more political information on European matters, the more extensive sincere voting on EU issues in the population.[81]

Since both political knowledge and contextual political information on EU policies has increased since 2009, there is reason to believe that also the distribution of political knowledge has become less uneven in the population and among groups, with distinctive and potentially competing political interests.[82] There is, therefore, a reason to expect the aggregated election result (party-choice and turnout) under the condition of a 'fully informed' voting population is less different from the official election result in 2014 than in 2009. In other words, political knowledge plays a less crucial role in the EP election in 2014 than in 2009, because the access to political knowledge and information has increased.

As a result, there are logical reasons to expect that:

H_2 An increased level of political knowledge among the Swedish electorate in line with the normative ideal of 'fully informed' voters affects the aggregate election result (party-choice and turnout) in the Swedish European Parliament elections after 2009 to a lesser extent.

[76] Hix & Høyland (2011), p.130-131
[77] Clark & Rohrschneider (2009), p.646-647; de Vries, van der Brug, van Egmond & van der Eijk (2011), p.17
[78] Miklin (2014), p.1199-1200
[79] Hobolt & Spoon (2012), p.717
[80] de Vries, van der Brug, van Egmond & van der Eijk (2010), p.16-17, 19-20
[81] Hobolt & Spoon (2012), p.701-709, 719
[82] Althaus (1998), p.547¸ Hansen (2009), p.526

3. Design of research

This chapter is divided into four sections. First follows a motivation of the choice of country case. The second section will provide a discussion of the chosen material for the empirical analysis. This is followed by a description and motivation of the chosen method for the empirical analysis. The chapter will end with a description and motivation of the operationalization for the selected variables.

3.1 Case selection

Sweden has been chosen as the case selection and, more precisely, the Swedish EP election in 2009 and 2014, and the Swedish parliamentary election 2010 and 2014. The main reason for choosing Sweden is that Sweden is an interesting context to study the impact of political knowledge on the aggregate election results and to evaluate whether political knowledge varies between different electoral contexts. Swedes' political knowledge levels are known to be high and evenly distributed.[83] However, there is a large knowledge gap among the Swedish citizens in terms of knowledge about opportunities to influence all the political issues that are affected by the EU level. The state public inquiry: *EU på hemmaplan: Betänkande av Utredningen om delaktighet i EU* (*EU at home: Report of the Inquiry on participation in the EU,* author's translation), stated that a majority of the Swedish voters do not know the EU system particularly well and which political issues are affected by the EU level. The Swedish voters also have insufficient political knowledge to be able to discuss EU decisions, and they are rather uninformed about political decisions made at the EU level and how they relate to politics in Sweden.[84]

Another reason why Sweden was chosen as a case country is that there are previous studies on the effect of political knowledge on the aggregate election results in Sweden's national parliamentary elections and Sweden's EP elections, which makes it possible to compare the results from this thesis with these two studies and thus enabling longer time series.[85]

3.2 Material

The chosen data material is from the Swedish National Election Studies Program (SNES) at the Department of Political Science, University of Gothenburg. SNES is a research program that, since the 1950s, has been researching Sweden's democracy, elections, voter behavior, and opinion formation. The first survey was conducted in connection with the 1956 election, and since then, election surveys have been conducted in all parliamentary elections, all referendums, and all Swedish elections to the EP, which has resulted in the SNES having Europe's longest time series and the second longest in the

[83] Oscarsson (2007), p.302
[84] SOU 2016:10. p.10, 50-74
[85] Bhatti (2010); Oscarsson (2007)

world.[86] Since 1969, SNES has also conducted parliamentary surveys, since 1995 candidate surveys, and since 2002 campaign panel studies, election promise studies, and weighting of opinion polls.[87]

Since the beginning, SNES has had a very close collaboration with Statistics Sweden, with which SNES conducts the recurring election surveys. SNES is responsible for the questionnaires, interview instructions, processing of data, coding, and analyses. While Statistics Sweden is responsible for sampling, fieldwork, and reporting to the official statistics. Through this collaboration, SNES has a unique opportunity to check and correct the self-reported data in the surveys against registered data by Statistics Sweden. Not only information such as gender, age, country of birth, place of residence, occupation, education, etc., but also electoral turnout. This is unique to SNES. Nowhere else in the world is there an election survey that contains this type of material, which inevitably makes SNES data material extra reliable.[88]

Since 1973, the national parliamentary election surveys have been carried out as a rolling two-stage long-term panel, where half of the sample is replaced at each election to enable studies of individual mobility. Since the same year, the survey also has been divided into a short-term panel into two stages, one pre-electoral survey, and one post-electoral survey. To enable studies of campaign effects, half of the sample is interviewed (face to face or by telephone) before the election and then participates in a smaller postal survey after the election, while the other half is interviewed only after the election. The survey covers a representative sample of enfranchised Swedish citizens aged 18-80 years.[89] As a sampling procedure, the survey uses a simple random sample (srs), which means that each subset of individuals in the population has the same probability of being drawn.[90] Between 1973 and 2014 the survey included a sample between 3 000 to 4 000 individuals.[91]

For the analysis of the EP election in 2009 and the national parliamentary election in 2010, the (Swedish parliamentary) election study 2010 has been chosen as the data material.[92] In the same way, the (Swedish parliamentary) election study 2014 has been chosen as the data material for the analysis of the EP election in 2014 and the national parliamentary election in 2014.[93] The reason for this choice regarding the national parliamentary elections needs no further explanation, while the choice needs to be further justified regarding the EP elections.

In the research field, there appears to be a consensus that factual knowledge is the best single indicator of political sophistication.[94] Unfortunately, factual political knowledge questions in surveys on EP

[86] Swedish National Election Studies. (2021). Accessed 2022-05-24
[87] Swedish National Election Studies. (2020). Accessed 2022-05-24
[88] Hedberg (2014), p.1
[89] Oleskog Tryggvason & Hedberg (2015), p.1
[90] Olofsson (2011), p.6; Olofsson (2015), p.6
[91] Holmberg (2010), p.377-378
[92] Swedish Election Study 2010
[93] Swedish Election Study 2014
[94] Hansen (2009), p.529, Bhatti (2010), p.393 Oscarsson (2007), p.306

elections are unusual. SNES had excluded the factual political knowledge questions in the EP post-election studies in 2014[95] and in 2019.[96] Only the European Parliament election study in 2009 provided these indications.[97] An alternative to data material for the EP elections had been the European Election Studies, but they have only between 3-5 factual political knowledge questions,[98] of three questions in 2014 and all in 2019 were about candidates for President of the next European Commission and which EP party group they belong to, i.e. questions that very few could answer correctly.[99] The alternative to 2019 would then have been the Eurobarometer, in which only the EP post-election survey of 2019 had included factual political knowledge questions, but unfortunately, those questions were only three.[100]

However, SNES's Sweden's parliamentary election studies include questions of party-choice in the previous EP election. This makes it possible to use the national election studies to examine political knowledge effects on the aggregate election results and evaluate whether the effects vary between Swedish national parliamentary and EP elections.[101] Unfortunately, the most recent national parliamentary election was in 2018, and the most recent EP election was in 2019, which means this approach does not work for the EP election in 2019. This means the most recent EP and national elections must be excluded from the analysis.

In summary, since a good amount of factual political knowledge should preferably capture the variation in quantity, quality, and organization of political cognitions between individuals, it is necessary to have a larger number of factual political knowledge questions.[102] For this reason, SNES's Swedish parliamentary election studies have also been chosen as data material for the analysis of EP elections. Only they could ensure a sufficient number of factual political knowledge questions. The choice not to use SNES's EP post-election study of 2009, but instead to use SNES's national election study of 2010 for the EP election in 2009, was to more directly compare the results between elections, as the EP post-election study of 2009 contained completely different factual political knowledge questions.[103]

[95] Valforskningsprogrammet, Statsvetenskapliga institutionen, Göteborgs universitet (2014)
[96] Valforskningsprogrammet, Statsvetenskapliga institutionen, Göteborgs universitet (2019)
[97] Valforskningsprogrammet, Statsvetenskapliga institutionen, Göteborgs universitet (2009)
[98] European Parliament Election Study 2009., Voter Study; European Parliament Election Study 2014, Voter Study, First Post-Election Survey.; European Parliament Election Study 2019, Voter Study.
[99] European Parliament Election Study 2014, Voter Study, First Post-Election Survey; European Parliament Election Study 2019., Voter Study.
[100] Eurobarometer 91.5 (2019).
[101] Swedish Election Study 2010; Swedish Election Study 2014
[102] Oscarsson (2007), p.308
[103] Valforskningsprogrammet, Statsvetenskapliga institutionen, Göteborgs universitet (2009)

3.3 Method

The method applied in this thesis is multinomial logistic regression, since it is the regression technique that should be applied when the dependent variable is at the nominal level with more than two categories. Multinomial logistic regression is used to predict the probabilities of the different possible outcomes of the categorical dependent variable, given the independent variable and the control variables.[104]

The methodology this thesis follows is mainly adapted from Bhatti and is carried out in two steps.[105] In the first step, one multinomial logistic regression per election, a total of four regressions, is performed on the party-choice, including the choice to not turnout giving the current factual political knowledge level and the control variables together with interactions between factual political knowledge level and each of the control variables. "Did not vote" is the selected reference category for the Party-choice variable in the multinomial logistic regression, which the coefficient (represented as the change in log odds) for the factual political knowledge variable and all control variables for all other categories of the party-choice variable are measured in relation to.[106]

The simulation method is not without its weaknesses. Foremost, the simulation is sensitive to mis-specification. If the model is under-specified and important variables are omitted, there is a risk that the independent variable "picks up" sample variance and the simulated effects of knowledge would be biased. However, if the model is over-specified, there is a risk of holding constant variables that would change when knowledge changes. Obviously, that the better the model is specified, the more likely this is to be true.[107]

To measure the overall goodness of fit and the performance of the models has both Mcfadden's pseudo-R2 and Nagelkerke's pseudo-R^2 been used. Mcfadden's pseudo-R^2, also known as the "likelihood-ratio index" compares the model without any predictor with a model that includes all predictors and varies between 0 and 1.[108] Nagelkerke's pseudo-R^2 is also based on the log-likelihood and is a type of logarithmic scoring rule that varies between 0 and 1.[109] In general, for both pseudo-R^2, higher values indicate that the independent variables are better at predicting the dependent variable. However, the value cannot be interpreted as the proportion of explained variance.[110] See Appendix II—V for the multinomial logistic regressions results.

In the second step, the simulation elections are performed when the factual political knowledge levels among the citizens are changed. This is done by predicting from the estimate coefficients of the original

[104] Bhatti (2010), p.394, 495; Hansen (2009), p.536; Oscarsson (2007), p.312; Mehmetoglu & Jakobsen (2016), p.180-181
[105] Bhatti (2010)
[106] Mehmetoglu & Jakobsen (2016), p.181
[107] Bhatti (2010), 396
[108] Hu, Shao & Palta (2006), p848
[109] Steyerberg, Ewout W., Vickers, Andrew J., Cook, Nancy R., Gerds, Thomas., Gonen, Mithat., Obuchowski, Nancy, Pencina, Michael J. & Kattan., Michael W. (2010), 130
[110] Hu, Shao & Palta (2006), p848; Steyerberg, Ewout W., Vickers, Andrew J., Cook, Nancy R., Gerds, Thomas., Gonen, Mithat., Obuchowski, Nancy,. Pencina, Michael J. & Kattan., Michael W. (2010), 130

multinomial logistic regression model the probabilities of party-choice including the choice of not voting of hypothetical respondents with exact the same sociodemographic characteristics and predisposition that they observed but with a new given factual political knowledge level. In other words, just change the respondent's factual political knowledge level but keep the control variables constant.

Here, the method of this thesis differs from Bhatti, as this thesis only performs the simulation that "follows the logic of Bartels[111] and Althaus[112], who calculate the impact of a fully informed public" - a situation where all eligible voters have the same maximum (minimum) level of knowledge".[113] On the other hand, this thesis follows Bhatti's method and differs from Bartels and Althaus in terms of the simulation of party-choice taking into account that the turnout increases when the level of knowledge increases, and correspondingly that the turnout decreases when the level of knowledge decreases.[114]

3.4 Operationalization

3.4.1 Dependent variable

The dependent variable of the thesis is **Party-choice** and is based on the questionnaire questions: *Which party did you vote for in the 2009 election to the EU parliament?* / *Which party did you vote for in the election to the European parliament* / *EU parliament?*, and *Which party did you vote for in this year's parliamentary election?* with the different parties; *Left Party*, *Social Democratic*, *Green Party*, *Center Party*, *The Liberals*, *Moderate Party*, *Christian Democrats*, *Sweden Democrats*, *Feminist Initiative*, *June List*, *Pirate Party*, and *Other* as answer options as well as *Voted blank*, *Don't know/cannot remember*, *Do not want to answer*, and. *Did not vote*. Since the aim of the thesis is to examine political knowledge effects on the aggregate election results and evaluate whether the effects vary between different electoral contexts, all answers other than a party and did not vote have been excluded. Since some of the small parties had too few respondents, they have also been excluded from the analysis. See *Table 1*. The election results in SNES for which parties (the boldface and italicized numbers) are included in which election.

Although the SNES checks and corrects the self-reported data on electoral turnout against register data from Statistics Sweden, there will be a systematic distortion of the representation of the population regarding party-choice as sympathizers with certain parties are more likely to respond to the survey than others and party-choice is not registered. Regarding the EP election in 2009, there is also a higher risk that the respondents report the wrong party because they remember wrong. After all, it was over a year since they voted, compared to the EP election in 2014, where it was less than four months since they voted. In addition, the EP elections in 2009 and 2014, and the national parliamentary election in 2010,

[111] Bartels (1996)
[112] Althaus (1998)
[113] Bhatti (2010), p.397
[114] Bhatti (2010), p.401

lack party-choice weights. To remedy this in this thesis, I have for all four elections created my own weights based on the official election results for every election. The weight variable is weighted against the official results of the election to weigh down the result for overestimated parties in the data, and to weigh up the underestimated parties in the data. There will be a systematic distortion of the population's representation and turnout, as people who vote are more likely to respond to the survey than people who do not vote. The weight variable will also correct against that and weight against the official electoral turnout to weigh down the overestimated participation among the party-choice respondents and weigh up the underestimated participation among the non-party-choice responses.[115]

Table 1: Election results. The ratio of voters' party-choice (percent)

	The election results in SNES				The official election results			
European Parliament election	2009		2014		2009		2014	
National parliament election		2010		2014		2010		2014
Left Party	**5.47**	**5.28**	**6.31**	**6.86**	**5.66**	**5.60**	**6.30**	**5.72**
Social Democrats	**28.63**	**31.09**	**22.84**	**30.95**	**24.41**	**30.66**	**24.19**	**31.01**
Green Party	**11.07**	**8.92**	**17.89**	**8.84**	**11.02**	**7.34**	**15.41**	**6.89**
Center Party	**5.34**	**6.45**	**6.71**	**6.45**	**5.47**	**6.56**	**6.49**	**6.11**
The Liberals	**9.92**	**7.42**	**8.55**	**5.84**	**13.58**	**7.06**	**9.91**	**5.42**
Moderate Party	**27.86**	**30.62**	**17.41**	**22.87**	**18.83**	**30.06**	**13.65**	**23.33**
Christian Democrats	**3.56**	**5.15**	**5.43**	**4.78**	**4.68**	**5.60**	**5.93**	**4.57**
Sweden Democrats	0.89	**3.81**	**5.75**	**9.25**	3.27	**5.70**	**9.67**	**12.86**
Feminist Initiative	0.89	*0.59*	**6.79**	**3.56**	2.22	-	**5.49**	3.12
June List	0.76	-	-	-	3.55	-	-	-
Pirate Party	**5.60**	*0.50*	*1.52*	-	**7.13**	-	2.23	-
Other	0	**1.26**	**0.80**	0.61	0.18	1.43	0.73	0.97
Number of respondents party-choice	786	2 387	1 252	1 968				
Turnout	49.38	87.38	54.66	89.81	45.53	84.63	51.07	85.81
Number of respondents did vote	1 828	3 461	2 164	3 560				

Source: Election Study 2010.; Election Study 2014. The official election results derived from Valmyndigheten (2020a) for the EP election 2009, Valmyndigheten (2020b) for the EP election 2014, and Valmyndigheten (2019a) for the national parliamentary election 2010 and Valmyndigheten (2019b) for the national parliamentary election 2014.
Comment: The boldfaced numbers under "The election results in SNES" are included in the analysis. The italicized numbers are included in "Other". The boldfaced numbers under "The official election results" passed the election threshold and entered the parliaments.

3.4.2 Independent variable

The independent variable is an index of **Factual political knowledge** based on the same types of factual knowledge questions as Oscarsson[116] and Hansen[117] use. The indexes consist of seven true or false statements about the current state of affairs and the political system and its working, and fifteen political candidates and party officials, which would be paired with the right party. The factual political knowledge questions are divided into 15 in 2009 and 2010, and 14 in 2014. See *Table 2* for the question

[115] Note: The weight variable is created for each party and the choice "did not vote", by taking the number of respondents who did vote for the party or did not vote at all, for those who responded to all variables in the analysis, and divided it by the number of voters who did vote for the party or eligible voters who did not vote at all according to official elections reported by the Electoral authority (Valmyndigheten (2020a) for the EP election 2009, Valmyndigheten (2020b) for the EP election 2014, and Valmyndigheten (2019a) for the national parliamentary election 2010 and Valmyndigheten (2019b) for the national parliamentary election 2014.)
[116] Oscarsson (2007), p.309-310
[117] Hansen (2009), p.530

formulations, which questions are included in the election, and how well those who have voted have answered the questions.

Table 2: Voters' factual political knowledge. The ratio of voters giving a correct answer (percent)

European Parliament election	2009		2014		
National parliament election		2010		2014	
Factual knowledge of current state-of-affairs					
Wind power accounts for 20 percent of electricity production in Sweden.	69.73	65.44			False
Spain is a member of the EU.	90.82	86.49	89.86	88.10	True
The Riksbank's (Swedish central bank) policy rate is currently higher than 4 per cent.	78.41	73.29	77.87	75.69	False
A euro is today worth more than 10 Swedish kronas.			85.11	84.64	False
Factual knowledge of the political system and its working					
During the period 2006-2010 / 2010-2014, Sweden had a center-right four-party government / red-green two-party government.	96.90	95.37	94.99	93.90	True
A party must receive at least 6 percent of the votes to enter Sweden's Riksdag (national parliament).	92.80	90.26	92.23	89.83	False
The Swedish Riksdag (national parliament) has 349 members.	81.14	76.20	81.29	78.74	True
Factual knowledge of political candidates and party officials					
Fredrick Federley	43.67	37.63			Center Party
Gunilla Carlsson	31.76	25.45			Moderate Party
Leif Pagrotsky	85.48	77.69			Social Democrats
Mikaela Valtersson	11.41	8.80			Green Party
Alice Åström	21.34	17.52			Left Party
Mats Odell	35.73	30.01			Christian Democrats
Tomas Östros	82.26	75.18			Social Democrats
Anders Borg	93.55	89.47	93.81	92.27	Moderate Party
Birgitta Olsson	37.84	29.07	49.80	43.13	The Liberals
Eskil Erlandsson			69.04	63.89	Center Party
Magdalena Andersson			54.55	48.93	Social Democrats
Ebba Busch			15.68	13.12	Christian Democrats
Björn Söder			42.29	38.35	Sweden Democrats
Rossana Dinamarca			37.15	32.86	Left Party
Catharina Elmsäter-Svärd			38.74	34.79	Moderate Party
Number of respondents	806	1 273	759	983	
Index of factual political knowledge					
Number of questions	15	15	14	14	
Mean	61.65	58.52	65.80	62.73	
Scalability (Loevinger's h)	0.50	0.50	0.51	0.51	
Reliability (Cronbach's alpha)	0.82	0.82	0.82	0.82	

Source: Election Study 2010.; Election Study 2014.

Comment: The question on factual knowledge of current affairs and the political system and its working was: "On this card, there are a number of statements. Could you say whether each of them is true or false? If you are not certain of the answer, you may say that you do not know whether the statement is true or false?". The answer "don't know" is coded as an incorrect answer. The question of factual knowledge of political figures was: "Here is a list of names of different people. Could you tell me the party each of them belongs to?" The scalability of the index (Loevinger's H) is the result of a Mokken Scaling Procedure (MSP).

Originally, the Election Study 2010 and the Election Study 2014 contained each three additional factual political knowledge questions that have been excluded as a result of the Mokken Scaling Procedure (MSP), which was conducted to test whether these variables in the indexes capture the respondent's factual political knowledge. Mokken Scaling is based on the assumption that the variables in the index are unidimensional and hierarchically ordered by the degree of difficulty, which means that a respondent

that answers a difficult question correctly is more likely to answer an easy question correctly[118] The scalability measures for the indexes of factual political knowledge are well over the standard benchmarks: Loevinger's H = 0factual .50-0.51; which confirms a strong unidimensional structure of the factual political knowledge variables in the indexes. Also, the reliability measures for the indexes are well over the standard benchmarks: Cronbach's alpha = 0.82.

To further test that the indexes capture a deeper understanding and awareness of politics among the respondents, and not just scratch the surface of political cognition, statistical hypothesis tests (Kendall's rank correlation coefficient tau-b) also have been performed. The hypothesis test controls the correlation between the indexes and most of the important sources of political information and knowledge: *Education, Media exposure to political news on TV and radio / in the press, Media exposure to EU / national political news, The degree of election campaign exposure and activity* as well as *The frequency of political discussions within the family, among friends and colleagues*, and *The willingness to engage in political discussions*, and also *Political interest*.[119] As expected, the indexes correlate with all the sources. See Appendix I for the statistical hypothesis tests results.

3.4.3 Control variables

The sociodemographic control variables consist of; **Gender**, **Age**, **Swedish/foreign background**, **Education level**, **Occupation**, **Place of residence**, and **Taxed income**, which are registered data from Statistics Sweden. In addition, two predisposition control variables are also included: **Frequency of religious activity** as well as **Left-Right ideological self-placement**. Which are the same control variables that Oscarsson uses,[120] plus taxed income and Swedish/foreign background. Bhatti also uses the same control variables as Oscarsson, but with the difference that he has replaced occupation with self-identified class and employment status - self-employed/employee.[121] Hansen also uses gender, age, education, occupation, but uses party affiliation instead of Left-Right ideology.[122] The reason why this thesis chooses to use Left-Right ideology instead of party affiliation is that party affiliation is likely to change with increased knowledge. While ideological predisposition, on the other hand, often is theorized to be fixed by the individual's primary socialization. Since the control variables are fixed in this analysis, the Left-Right ideology was chosen.[123]

Gender is coded as *1 = Male* and *2 = Female*. Age is coded into three consecutive categories of twenty years each, except for the youngest age category, which includes 22 years, and the oldest age category which contains 24 years. Swedish/foreign background is recoded into two categories. *1 = born in Sweden and both parents born in Sweden*, and *2 = that oneself or at least one parent were born abroad*.

[118] Bhatti (2010), p.393 Oscarsson (2007), p.308
[119] Oscarsson (2007), p.308, 320
[120] Oscarsson (2007), p.316
[121] Bhatti (2010), p.396
[122] Hansen (2009), p.532
[123] Bhatti (2010), p.395

Education level is recoded into three categories: *primary- or shorter*, *secondary-*, and *tertiary education*. Occupation is recoded into two categories. *1 = industrial workers, other blue-collar workers, white-collar workers,* and *Self-employed*, and *2 = qualified white-collar workers, higher white-collar workers, students,* and *farmers*. The division is made based on how the different occupational groups correlated with different parties. Place of residence is recoded into two categories: *Rural (countryside, and small town or village),* and *Urban (suburb of large town or city, large town or city, and big city (i.e. Stockholm, Gothenburg or Malmö))*. Income is recoded into three categories: *Low income*, *Middle income,* and *High income,* based on 35, 30, and 35% of the respondents. The frequency of religious activity is recoded into three categories: *Never*, *Once a year*, and *More often*, from the question: *How often do you attend religious activities, such as worship, meetings, or other gatherings? Radio, TV, hospital devotion, etc. are also counted.* Left-right ideological self-placement is coded on a 0-10 scale.

In *Table 3*, a summary of all the chosen variables and their operationalization is presented, including each of the control variables' interactions with factual political knowledge.

Table 3: Descriptive statistics - Frequency table of all variables

European Parliament election		2009		2014	
National parliament election			2010		2014
Variable	Min/max		Mean (Std.Dev.)		
Dependent variable					
Party-choice EP 2009	1/9	8.38 (4.70)			
Party-choice 2010	1/10		4.59 (2.79)		
Party-choice EP 2014	1/11			6.57 (4.33)	
Party-choice 2014	1/10				4.54 (2.72)
Independent variable					
Factual political knowledge	0/100	60.97 (20.70)	59.24 (20.73)	65.23 (20.95)	64.87 (21.05)
Control variables					
Gender	1/2	1.44 (0.50)	1.47 (0.50)	1.48 (0.50)	1.48 (0.50)
Gender x factual political knowledge	0/200	86.07 (40.27)	85.1 (39.48)	94.43 (42.62)	93.88 (42.62)
Age	1/3	2.01 (0.80)	2.00 (0.80)	2.07 (0.80)	2.09 (0.80)
Age x factual political knowledge	0/300	127.1 (72.95)	123.46 (72.71)	140.55 (77.83)	140.41 (77.23)
Swedish/foreign background	1/2	1.13 (0.33)	1.12 (0.33)	1.06 (0.24)	1.06 (0.23)
Swedish/foreign background x factual political knowledge	0/200	67.89 (29.00)	65.56 (28.06)	68.71 (25.13)	68.15 (25.1)
Education	1/3	2.25 (0.69)	2.26 (0.71)	2.37 (0.69)	2.35 (0.69)
Education x factual political knowledge	0/300	140.38 (70.89)	136.83 (69.85)	158.11 (74.93)	156.63 (75.47)
Occupation	1/2	1.58 (0.49)	1.59 (0.49)	1.59 (0.49)	1.58 (0.49)
Occupation x factual political knowledge	0/200	98.97 (50.11)	96.41 (48.66)	105.63 (50.53)	104.65 (50.61)
Place of residence	1/2	1.56 (0.50)	1.57 (0.50)	1.62 (0.49)	1.61 (0.49)
Place of residence x factual political knowledge	0/200	96.1 (47.69)	93.59 (46.57)	106.88 (49.97)	105.96 (50.27)
Income	1/3	2.20 (0.79)	2.14 (0.81)	2.23 (0.81)	2.22 (0.82)
Income x factual political knowledge	0/300	138.76 (75.44)	131.65 (74.86)	150.13 (78.4)	148.76 (78.68)
Religious activity	1/3	1.90 (0.80)	1.94 (0.81)	2.01 (0.75)	2.02 (0.75)
Religious activity x factual political knowledge	0/300	117.16 (67.44)	115.96 (66.89)	132.88 (68.43)	132.74 (68.3)
Left-right ideology	0/10	5.21 (2.27)	5.18 (2.26)	5.04 (2.31)	5.01 (2.32)
Left-right ideology x factual political knowledge 09 & 10	0/933.3334	322.44 (188.64)	312.64 (185.83)	331.49 (196.9)	328.34 (196.59)
14 & 14	0/928.5714				
Number of respondents		912	1 244	828	857

Source: Election Study 2010.; Election Study 2014.
Comment: Party-choice variables include "did not vote".

4. Results

In this chapter, the results of the predicted probability of voting for the included parties, including the choice to not vote, which also means the predicted probability of turnout, will be presented. The first section of the chapter will be devoted to the results of the multinomial logistic regression model with actual factual political knowledge levels, while the second section will be devoted to the simulated results with minimum and maximum factual political knowledge levels for all the eligible voters.

4.1 The result of the multinomial logistic regression model with actual factual political knowledge

First, the results of the multinomial logistic regression model with actual factual political knowledge are presented in comparison with the official election results.

Table 4: The election results from the multinomial logistic regression model and the official (percent)

	The election results in the regression model				The official election results			
European Parliament election	2009		2014		2009		2014	
National parliament election		2010		2014		2010		2014
Left Party	6.40	5.82	7.62	6.73	**5.66**	**5.60**	**6.30**	**5.72**
Social Democrats	26.42	29.80	23.05	30.94	**24.41**	**30.66**	**24.19**	**31.01**
Green Party	12.15	7.93	16.81	7.88	**11.02**	**7.34**	**15.41**	**6.89**
Center Party	6.19	6.88	6.44	6.41	**5.47**	**6.56**	**6.49**	**6.11**
The Liberals	14.90	7.31	9.80	5.65	**13.58**	**7.06**	**9.91**	**5.42**
Moderate Party	21.75	30.07	13.26	22.59	**18.83**	**30.06**	**13.65**	**23.33**
Christian Democrats	5.09	5.89	5.99	4.84	**4.68**	**5.60**	**5.93**	**4.57**
Sweden Democrats	-	4.85	7.69	11.03	3.27	**5.70**	**9.67**	**12.86**
Feminist Initiative	-	-	6.45	3.93	2.22	-	**5.49**	3.12
June List	-	-	-	-	3.55	-	-	-
Pirate Party	7.11	-	-	-	**7.13**	-	-	-
Other	-	1.45	2.89	-	0.18	1.43	2.96	0.97
Turnout	45.84	87.32	57.81	89.06	45.53	84.63	51.07	85.81

Source: Election Study 2010.; Election Study 2014. The official election results derived from Valmyndigheten (2020a) for the EP election 2009, Valmyndigheten (2020b) for the EP election 2014, and Valmyndigheten (2019a) for the national parliamentary election 2010 and Valmyndigheten (2019b) for the national parliamentary election 2014.
Comment: The boldfaced numbers passed the election threshold and entered the parliaments.

In all elections, turnout is overestimated. In the EP election in 2014, the overestimation is very large, with just under 7 percentage points. Also, in the national parliamentary elections in 2010 and 2014, turnout was overestimated by about 3 percentage points in each election. The overestimation of the parties is greatest in the EP 2009. This is because just over 9.5 percent are excluded in that election due to too few respondents for the parties: the June List, the Sweden Democrats, the Feminist Initiative, and Other. In that election, the overestimation increases with the size of the parties, except for the Pirate Party, which is within the margin of error.

In the national parliamentary elections in 2010 and 2014 and the EP elections in 2014, the Sweden Democrats were underestimated. This is probably explained by the fact that there were significantly fewer respondents in the survey that they had voted for that party. Another possible reason why the election result from the multinomial logistic regression model does not correspond better with the

official election result may be that the control variables have been recoded to include larger groups. A recoding that was necessary to perform to get enough respondents in each group to be able to perform the regression.

4.2 The simulated results with minimum and maximum factual political knowledge

The tables below present the simulations for both party-choice and turnout, one table per election. The two first tables present the results for the national parliamentary elections in 2010 and 2014, while the following two show the results for the European Parliament elections in 2009 and 2014.

The column "Actual" describes the predicted probabilities to vote for the included parties as well as turnout, given the sociodemographic characteristics and predisposition and the actual factual political knowledge level. In the left and right columns, the counterfactual changes are estimated for respectively a fully uninformed (0 correct answers on the factual political knowledge questions in the index) and a fully informed (all correct answers on the factual political knowledge questions in the index) citizenry. The change to minimum / maximum factual political knowledge from the election results of the regression model is presented at the far end of the sides of the tables. To be able to compare the changes in the aggregate election result of party-choice between the different elections with different numbers of parties, the value of the average changes has been produced. The average changes represent the average value of the changes' absolute value for the parties.

4.2.1. National parliamentary election 2010

In *Table 5*, the simulation of the 2010 national parliamentary election, the turnout would increase from 87.32% to 96.23% if the level of knowledge increased to the maximum knowledge level of fully informed, an increase of +8.91%. If instead the level of knowledge decreased to the minimum knowledge level of fully uninformed, the turnout would decrease to 61.48%, a decrease of -25.84%.

In the aggregate election results of party-choice, an increase in the knowledge level to be fully informed would result in an average change of 5.65 percentage points. The biggest loser in that scenario would be the Social Democrats, with -13.45%, which means they lose almost half of their votes.[124] The second big loser would be the Moderate Party, which would lose -9.40%. The winner would be the smaller parties, except for The Liberals and Sweden Democrats, where the Green Party would be the biggest winner, with +5.36%. The total aggregate loss for the Left parties (Left Party, Social Democrats, and Green Party) would be -5.11%, compared to the Right parties (Center Party, The Liberals, Moderate Party, and Christian Democrats) which would make a loss of -3.8%.

On the other hand, a decrease in the knowledge level to fully uninformed would result in an average change of 7.61 percentage points in the aggregate election result of party-choice. The biggest winner in

[124] Note: The results are in line with previous studies, such as Hansen (2009), p.539-540

that scenario would be, except Other, the Sweden Democrats with +11.09%, while the Moderate Party would be the biggest loser with -17.37%. The total aggregate loss for the Left parties (Left Party, Social Democrats, and Green Party) would be -2.18%, compared to the Right parties (Center Party, The Liberals, Moderate Party, and Christian Democrats) which would make a loss of -24.01%.

4.2.2. National parliamentary election 2014

In *Table 6*, the simulation of the 2014 national parliamentary election, the turnout would increase by +5.29%, from 89.06% to 94.35%, if the electorate were fully informed. If instead the electorate was fully uninformed, the turnout would decrease to a level of 65.5%, a decrease of -23.56%.

In the aggregate election results of party-choice, an increase in the knowledge level to be fully informed would result in an average change of 4.36 percentage points. Even here the biggest loser in that scenario would be the Social Democrats, with -10.70%. The second big loser would be the Moderate Party, which would lose -6.73%. The winner would even here be the smaller parties, except for Sweden Democrats, but the biggest winner would instead be the Center Party, with +9.33%. The total aggregate loss for the Left parties (Left Party, Social Democrats, and Green Party) would be -6.3%, and together with Feminist Initiative -4.82%, compared to the Right parties (Center Party, The Liberals, Moderate Party, and Christian Democrats) which would make a gain of +7.03%, and together with Sweden Democrats +4.82%.

If instead the knowledge level decreased to fully uniformed, the average change would be 4.64 percentage points in the aggregate election result of party-choice. Even here the biggest winner would be the Sweden Democrats with +12.87%, while the Center Party would instead be the biggest loser with -5.27%. The total aggregate loss for the Left parties (Left Party, Social Democrats, and Green Party) would be -8.67%, and together with Feminist Initiative -8.52%, compared to the Right parties (Center Party, The Liberals, Moderate Party, and Christian Democrats) which would make a loss of -4.35%, and together with Sweden Democrats would instead gain +8.52%.

Table 5: Predicted probabilities to vote for respective parties and turnout in **National parliamentary election 2010** by actual factual political knowledge level, and in a simulation of fully uniformed and fully informed in percent and the changes and average changes in percentage points.

	Change	Fully uniformed	**Actual**	Fully informed	*Change*
Left Party	*-4.38*	1.44	**5.82**	8.80	*+2.98*
Social Democrats	*+7.98*	37.78	**29.80**	16.35	*-13.45*
Green Party	*-5.78*	2.15	**7.93**	13.29	*+5.36*
Center Party	*-4.85*	2.03	**6.88**	10.13	*+3.25*
The Liberals	*-1.87*	5.44	**7.31**	6.54	*-0.77*
Moderate Party	*-17.37*	12.70	**30.07**	20.67	*-9.40*
Christian Democrats	*+0.08*	5.97	**5.89**	9.01	*+3.12*
Sweden Democrats	*+11.09*	15.94	**4.85**	3.03	*-1.82*
Other	*+15.10*	16.55	**1.45**	12.18	*+10.73*
Average Change	*7.61*				*5.65*
Turnout	*-25.84*	61.48	**87.32**	96.23	*+8.91*

Source: Election Study 2010.
Comment: "Change" is the change between the simulated election of fully uninformed/informed and the results of the multinomial logistic regression model with actual factual political knowledge.
"Average change" is the mean of the absolute value of the change in party-choice.

Table 6: Predicted probabilities to vote for respective parties and turnout in **National parliamentary election 2014** by actual factual political knowledge level, and in a simulation of fully uniformed and fully informed in percent and the changes and average changes in percentage points.

	Change	Fully uniformed	**Actual**	Fully informed	*Change*
Left Party	*-4.99*	1.74	**6.73**	7.23	*+0.50*
Social Democrats	*+1.13*	32.07	**30.94**	20.24	*-10.70*
Green Party	*-4.81*	3.07	**7.88**	11.78	*+3.90*
Center Party	*-5.27*	1.14	**6.41**	15.74	*+9.33*
The Liberals	*-4.18*	1.47	**5.65**	7.19	*+1.54*
Moderate Party	*+6.72*	29.31	**22.59**	15.86	*-6.73*
Christian Democrats	*-1.62*	3.22	**4.84**	7.73	*+2.89*
Sweden Democrats	*+12.87*	23.90	**11.03**	8.82	*-2.21*
Feminist Initiative	*+0.15*	4.08	**3.93**	5.41	*+1.48*
Average Change	*4.64*				*4.36*
Turnout	*-23.56*	65.50	**89.06**	94.35	*+5.29*

Source: Election Study 2010.
Comment: "Change" is the change between the simulated election of fully uninformed/informed and the results of the multinomial logistic regression model with actual factual political knowledge.
"Average change" is the mean of the absolute value of the change in party-choice. Other is excluded due to too few respondents.

Table 7: Predicted probabilities to vote for respective parties and turnout in **European parliament election 2009** by actual factual political knowledge level, and in a simulation of fully uniformed and fully informed in percent and the changes and average changes in percentage points.

	Change	Fully uniformed	**Actual**	Fully informed	*Change*
Left Party	*+1.03*	7.43	**6.40**	12.86	*+6.46*
Social Democrats	*-11.78*	14.64	**26.42**	15.19	*-11.23*
Green Party	*-7.28*	4.87	**12.15**	18.40	*+6.25*
Center Party	*+2.54*	8.73	**6.19**	7.74	*+1.55*
The Liberals	*-2.29*	12.61	**14.90**	10.17	*-4.73*
Moderate Party	*-14.54*	7.21	**21.75**	17.61	*-4.14*
Christian Democrats	*+12.11*	17.20	**5.09**	8.29	*+3.2*
Pirate Party	*+20.20*	27.31	**7.11**	9.75	*+2.64*
Average Change	*8.28*				*4.62*
Turnout	*-26.75*	19.09	**45.84**	84.75	*+38.91*

Source: Election Study 2010.
Comment: "Change" is the change between the simulated election of fully uninformed/informed and the results of the multinomial logistic regression model with actual factual political knowledge. "Average change" is the mean of the absolute value of the change in party-choice. June List, Sweden Democrats, Feminist Initiative, and Other are excluded due to too few respondents.

Table 8: Predicted probabilities to vote for respective parties and turnout in **European parliament election 2014** by actual factual political knowledge level, and in a simulation of fully uniformed and fully informed in percent and the changes and average changes in percentage points.

	Change	Fully uniformed	**Actual**	Fully informed	*Change*
Left Party	*-0.55*	7.07	**7.62**	10.83	*+3.21*
Social Democrats	*-13.41*	9.64	**23.05**	16.81	*-6.24*
Green Party	*-11.19*	5.62	**16.81**	14.34	*-2.47*
Center Party	*-5.02*	1.42	**6.44**	12.43	*+5.99*
The Liberals	*-2.60*	7.20	**9.80**	6.37	*-3.43*
Moderate Party	*-4.16*	9.10	**13.26**	11.57	*-1.69*
Christian Democrats	*-3.32*	2.67	**5.99**	12.11	*+6.12*
Sweden Democrats	*+14.31*	22.00	**7.69**	7.89	*+0.20*
Feminist Initiative	*+1.60*	8.05	**6.45**	5.18	*-1.27*
Other	*+24.34*	27.23	**2.89**	2.48	*-0.41*
Average Change	*7.99*				*3.33*
Turnout	*-20.18*	37.63	**57.81**	81.36	*+23.55*

Source: Election Study 2014.
Comment: "Change" is the change between the simulated election of fully uninformed/informed and the results of the multinomial logistic regression model with actual factual political knowledge. "Average change" is the mean of the absolute value of the change in party-choice.

4.2.3. European Parliament election 2009

In *Table 7*, the simulation of the 2009 European Parliament election, an increase of the knowledge level to fully informed, would result in the turnout increase from 45.84% to 84.75%, an increase of +38.91%. A much larger increase than in the national parliamentary elections. If instead, the knowledge level would decrease to fully uninformed, the turnout would decrease to 19.09%, a decrease of -26.75%, which is equivalent to the percentage reduction in the national parliamentary elections.

In the aggregate election results of party-choice, the average change would be 4.65 percentage points if the electorate were fully informed. This result corresponds to the number for the national parliamentary elections. Even here the biggest loser would be the Social Democrats, with -11.23%. In this scenario, the winner would be the other left parties, the Left Party, and the Green Party, with approximately +6-6.5% each. The total aggregate gain for the left parties (Left Party, Social Democrats, and Green Party) would be +1.48%, compared to the Right parties (Center Party, The Liberals, Moderate Party, and Christian Democrats), which would make a loss of -4.12%, and together with Pirate Party a loss of -1.48%.

Instead, if the electorate were fully uninformed, the average change would be 8.28 percentage points for the aggregate election result of party-choice. The biggest winner in that scenario would be the Pirate Party with +20.20%, followed by the Christian Democrats with +12.11. The biggest loser would be the Moderate Party with -14.54%, followed by Social Democrats with a decrease of -11.78%. The total aggregate loss for the Left parties (Left Party, Social Democrats, and Green Party) would be -18.03%, compared to the Right parties (Center Party, The Liberals, Moderate Party, and Christian Democrats) which would make a loss of -2.18%, and together with Pirate Party instead would gain +18.02%.

4.2.4. European Parliament election 2014

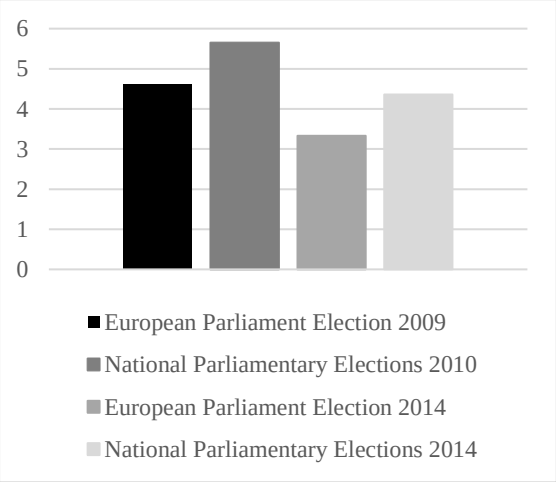
In *Table 8*, the simulation of the 2014 European Parliament election, the turnout would increase by +23.55%, from 57.81% to 81.36%, if the electorate were fully informed. That even here is a much larger increase than in the national parliamentary elections. If the electorate were fully uninformed, the turnout would decrease to a level of 37.63%, a decrease of -20.18%. This result is about the same percentage reduction as in the national parliamentary elections.

In the aggregate election results of party-choice, an increase in the knowledge level to be fully informed would result in an average change of 3.33 percentage points. Which even here corresponds to the number for the national parliamentary elections. Even here the biggest loser would be the Social Democrats, with -6.24%. In that scenario, the winner would be two right parties, the Christian Democrats and the Center Party, with approximately +6% each. The total aggregate loss for the Left parties (Left Party, Social Democrats, and Green Party) would be -5.5%, and together with Feminist Initiative -6.77%,

compared to the Right parties (Center Party, The Liberals, Moderate Party, and Christian Democrats) which would make a gain of +6.99%, and together with Sweden Democrats +7.19%.

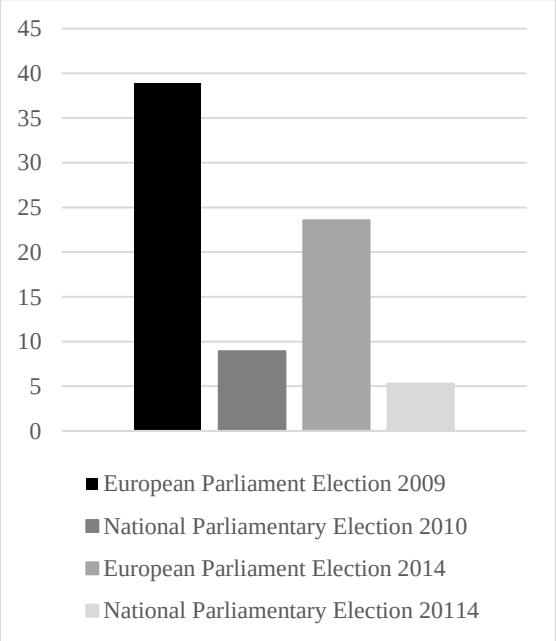
If instead, the knowledge level decrease to fully uniformed, the average change would be 7.99 percentage points in the aggregate election results of party-choice. Even here the biggest winner, except Other, would be the Sweden Democrats with +14.31%, while the biggest loser would be the Social Democrats with -13.41%, followed by the Green Party with -11.19%. The total aggregate loss for the Left parties (Left Party, Social Democrats, and Green Party) would be -25.15%, and together with Feminist Initiative -23.55%, compared to the Right parties (Center Party, The Liberals, Moderate Party, and Christian Democrats) which would make a loss of -15.13%, and together with Sweden Democrats -0.82%.

Figure 1: The average change of the aggregated election results of party-choice from actual factual political knowledge level to fully informed (percentage points).



Source: Election Study 2010; Election Study 2014

Figure 2: The change of the aggregated election results of turnout from actual factual political knowledge level to fully informed (percent).



Source: Election Study 2010; Election Study 2014

5. Analysis

The thesis aims to examine whether the level of political knowledge of the Swedish voting population affects the aggregate election result (party-choice and turnout) differently in different electoral contexts. The elections of interest that were chosen were the Swedish parliamentary election in 2010 and 2014, and the Swedish EP election in 2009 and 2014. In the previous chapter, the results of the statistical analysis are presented, and in this chapter, these results will be analyzed.

5.1 Analysis of hypothesis H^1

This thesis hypothesized that an increased level of political knowledge among the Swedish electorate in line with the normative ideal of 'fully informed' voters affect the aggregate election result (party-choice and turnout) in the Swedish European Parliament elections to a greater extent than the aggregate election result in the Swedish national parliamentary elections (H_1).

The result of the empirical analysis of individual-level data among Swedish voters during the Swedish parliamentary election in 2010 and 2014 compared with the EP election in 2009 and 2014 showed that this thesis has not received clear support for H_1. The thesis found that for the aggregate election results of party-choice, an increase in the knowledge level to be fully informed would result in an average change of 5.65 percentage points for the national parliamentary election in 2010 and 4.36 percentage points in the same election in 2014. While for the EP elections, an increase of the knowledge to the same level would result in an average change of 4.62 percentage points in 2009 and 3.33 percentage points in 2014. These are about the same changes, and in fact, the changes in the EP elections are smaller, which is the opposite of the hypothesis. See *Figure 1*.

The explanation for that the changes are about the same in EP and national parliamentary elections can be found in the turnout. The turnout for the national parliamentary elections was 84.63% in 2010 and 85.8% in 2014, compared to the EP election where the turnout was 45.53% in 2009 and 51.07% in 2014.[125] According to *Table 2* of the participating voter's factual political knowledge, the means of the factual political knowledge index for the elections are slightly higher for the EP election compared to the forthcoming national parliamentary elections. This means that the majority who vote in the EP election have a slightly higher level of knowledge than those who vote in the national parliamentary elections, in combination with the difference that around 30 percent fewer vote in the EP election. Furthermore, this means that percentage of the low knowledgeable people who vote based on misconceptions about the parties' political program in the EP election is very low, lower than in the national parliamentary elections, because those who have a low level of knowledge generally do not

[125] Valmyndigheten (2019a); Valmyndigheten (2019b); Valmyndigheten (2020a); Valmyndigheten (2020b)

vote in the EP elections, while in national parliamentary elections those with low knowledge vote to a slightly higher extent. This further means that when the level of knowledge among the population increases to be fully informed, the low-knowledge citizen in the EP election does not switch between parties but instead goes from not voting to voting. This means that there are no real differences in the knowledge effect of the aggregate electoral result of party-choice between national parliamentary elections and EP elections.

The turnout explanation is supported by the results for the turnout. If the values for turnout between elections under the condition of an increased level of knowledge to be fully informed are compared between EP elections and national parliamentary elections, it is very clear that increased knowledge affects EP elections to a greater extent than national elections do. EP elections have a change of +38,91% in 2009 and +23.55% in 2014. While the national parliamentary elections had a change of +8.91% in 2010 and +5.29% in 2014. See *Figure 2.*

Regarding the risk of deficits in democratic representation as a result of groups associated with higher political knowledge levels being disproportionately represented in terms of the population they comprise because they vote to a greater extent.[126] That risk in EP elections is equivalent to the risk in national parliamentary elections. As previous research has shown, the Social Democrats would be the biggest loser if the knowledge level increased to be fully informed regardless of the election. In the national parliamentary elections in the same situation, the results from the thesis are also in line with previous research. The right-wing bloc would benefit from such a scenario while the left-wing bloc would lose.[127]

Reif & Schmitt's midterm election effect, where small and new parties perform better, while large and government parties do worse,[128] does not decrease when the knowledge level increases to be fully informed. Rather, it is amplified. In general, the small and new parties would have performed better if the voters were fully informed, while the large and government parties would perform worse. It may lead one to conclude that the SOE theory is correct, that voters, despite being fully informed, do not consider the EP election as important as national parliamentary elections and therefore vote less strategically and engage in more sincere voting.[129] However, not protest voting. The results show that Sweden Democrats and Pirate Party would benefit most if the level of knowledge decreased to be fully uninformed, which is in line with Hobolt and Spoon who argued that protest voting requires very little information.[130]

[126] Althaus (1998), p.547; Hansen (2009), p.526
[127] Bartels (1996), p.194; Bhatti (2010), p.391-392; Hansen (2009), p.514; Oscarsson (2007), p.319
[128] Reif & Schmitt (1980), p.9-10
[129] Marsh & Mikhaylov (2010), p.11-13
[130] Hobolt & Spoon (2012), p.717

However, this pattern of small and new parties performing better, while large and government parties do worse, is also found in the national parliamentary elections. This instead leads one to believe that it may be because, as previous research has shown, when the knowledge level increases in the population to be fully informed, the election results are divided more evenly between the parties, which then become more equal in size.[131] Namely, it is rather in the national parliamentary elections that the voting behavior changes, and the voters go from strategic voting to sincere voting. Which can be seen as an improvement in democracy.

5.2 Analysis of hypothesis H^2

This thesis's second hypothesis is that an increased level of political knowledge of the Swedish electorate in line with the normative ideal of 'fully informed' voters affect the aggregate election result (party-choice and turnout) in the Swedish European Parliament elections after 2009 to a lesser extent (H_2).

The result of the empirical analysis of individual-level data among Swedish voters during the Swedish EP election 2009 compared with the election 2014 showed that this thesis found support for H_2. The thesis found that for the aggregate election results of party-choice, an increase in the knowledge level to be fully informed would result in an average change of 4.62 percentage points for the EP election 2009, while for the EP election 2014 the average change was 3.33 percentage points. It is a reduction in the impact of the level of knowledge on the aggregate election results of party-choice after 2009. See *Figure 1*.

This result is supported by empiricist results for both the party-choice and turnout. The difference between the results of the multinomial logistic regression model with actual factual political knowledge and the simulated election result when the level of knowledge increased to fully informed is less for all parties in 2014 except the Christian Democrats compared with 2009. If turnout instead between these EP elections under the condition of an increased level of knowledge to be fully informed is compared, the EP election 2009 would be affected to a greater extent than the EP election 2014. In 2009, the change would be +38,91% and +23.55% in 2014. See *Figure 2*.

That the level of knowledge affects later EP elections to a lesser extent is also supported when the level of knowledge instead decreased to be fully uninformed. For the aggregate election results of party-choice, the average change would be 8.28 percentage points for 2009, and for 2014 there would be 7.99 percentage points. For the turnout, the change for the same scenario would be -26.75% for 2009 and 20.18% for 2014. Instead, when it comes to party-choice, not all differences are smaller in 2014

[131] Bhatti (2010), p.391-392; Hansen (2009), p.514; Oscarsson (2007), p.319

compared to 2009. One explanation for this may be that in 2009 voters had lower mean knowledge from the beginning than in 2014, so a decrease to be fully uninformed is not as big a difference for the election in 2009 as for the election in 2014. Another explanation is that there are two fewer parties involved in the 2009 election than in 2014, which means that there cannot be as many party switches in 2009.

Concerning the debate on the EU's democratic deficit, which was one of the main reasons for introducing direct elections to the EP[132], this deficit has diminished with the increasing politicization of the EU and the EP. The result points out that the distribution of political knowledge is less unevenly in the population and among groups, with distinctive and potentially competing political interests in 2014 compared with 2009.

5.3 Limitations of the results

It is also important to acknowledge the limitations of the results. First, since the 2010 and 2014 election study has been used for the analysis of the 2009 and 2014 EP elections some time has passed between the respondents voting in the EP election and their participation in the survey leading to the implication that there were significantly fewer respondents who had answered which party they had voted for in the European Parliament elections. In addition, even if the party-choice and turnout were weighted, some parties still had to be excluded in the 2009 EP and the 2014 national parliamentary elections due to too few respondents, which has resulted in sub-optimal results.

Second, only party-choice and turnout were weighted and not the socio-demographic and predisposition control variables. Although most of them are checked and corrected against registered data from Statistics Sweden, there is a risk that they are not proportionally represented in the data set. In addition, since some of these categories within the control variables had too few respondents, it was also necessary to merge the categories into larger categories. This means that important sociodemographic and predisposition differences may have been lost in the analysis.

These limitations are a likely explanation for why the results of the multinomial logistic regression model with actual factual political knowledge do not fully agree with the official election results despite.

Third, it is always a discussion about whether all relevant control variables are included. Because I have closely followed the methods of previous studies and thus included the same control variables as them plus a few more, I am confident that the relevant control variables are included. To measure the overall goodness of fit of the models, for instance, Mcfadden's pseudo-R2 has been used.

[132] Marsh & Mikhaylov (2010), p.5

Mcfadden's pseudo-R2 = 0.280 - 0.331, which is about the same as Hansen[133] and Bhatti[134], is even slightly higher. This confirms a good fit and performance of the models and showed that the models had selected good predictors. Therefore, it can be argued that the results in this thesis derive from a reasonable choice of control variables and that the results are reasonable, despite the limitations mentioned above.

In terms of generalizability, this study was conducted in Sweden, where the differences between turnout in national elections and EP elections are among the largest, with differences of 39.10% in 2009 and 34.74% in 2014.[135] This means studies conducted in other countries where turnout is more even between national parliament elections and EP elections can provide contrasting results for hypothesis H^1. Regarding hypothesis H^2, it can be generalized because the changes that have taken place; the Treaty of Lisbon, the EU enlargement, more EU policy areas, and the Euro crisis, that has made the EU and the EP more politicized, are changes that have affected all EU countries.

[133] Hansen (2009), p.537
[134] Bhatti (2010), 369
[135] European Parliament (2019); World population review (2022)

6. Conclusion

The research question that this thesis has attempted to answer is if political knowledge effects on the aggregate election result (party-choice and turnout) vary between different types of electoral contests, based on the European Parliament elections in 2009 and 2014, and the national parliamentary elections in 2010 and 2014. To be more specific, if an increased level of knowledge among the Swedish electorate in line with the normative ideal of 'fully informed' voters affect the aggregate election result (party-choice and turnout) to a greater extent in the Swedish European Parliament elections than in the Swedish national parliamentary elections (H^1), and if the same scenario affects the aggregate election result (party-choice and turnout) to a lesser extent in the Swedish European Parliament elections after 2009 (H^2).

This thesis empirical findings show that the assumptions on which hypothesis H^1 is based - that the democratic deficit would be higher in the EP elections compared to the national parliamentary elections because the state of knowledge and information is lower in the EP elections. Since the EP elections receive less attention because these elections are considered less important. Which has resulted in the EP election having a significantly lower voter turnout, and voters vote mostly to assess how the national parties have performed at the national level and the national government has managed its commitments instead of electing representatives to the EP and voting on the content or direction of EU policy.[136] - are not true, and thereby H^1 can be rejected.

The differences between the aggregated election result of party-choice at the actual level of factual political knowledge and fully informed are smaller in the EP elections compared to national parliamentary elections. This suggests that uninformed voters do not make the wrong party-choice more often in EP elections than in national parliamentary elections. However, the SOE theory cannot be rejected. Because when the turnout is analyzed, the turnout is still significantly lower in EP elections than in national parliamentary elections, even when the level of knowledge is raised to be fully informed. This cannot mean anything other than that the EP election is still considered less important than the national parliamentary election.[137]

That the aggregate election result of party-choice between the actual level of factual political knowledge and fully informed does not differ more in the EP election than in the national parliamentary election, despite the much lower turnout, also proves that Sweden has a well-distributed knowledge between groups with distinctive and potentially competing political interests and that the election results of the

[136] Althaus (1998), p. 553-554, 547; Bartels (1996), p.217; Clark (2014), 343; Hansen (2009), p.526; Hobolt & Spoon (2012), p.717; Lau & Redlawsk (2001), p.964, 966–967; Oscarsson (2007), p.312–314; Reif & Schmitt (1980), p.8-10; de Vries, van der Brug, van Egmond & van der Eijk (2010), p.16-17, 19-20
[137] Reif & Schmitt (1980), p 8-9

EP elections are no more unrepresentative of the population than the national parliamentary elections. In that sense, there is no greater democratic deficit in the elections to the European Parliament than in the national parliamentary elections.

Another finding is that there is evidence that as the level of knowledge increases, the degree of sincere voting increases at the expense of strategic voting, regardless of the electoral context. The indication for this is that for both EP elections and national parliament elections, small and new parties perform better while large and government parties do worse when the knowledge level increase to fully informed. Except for "protest parties" which generally do not benefit from increased knowledge levels. This supported Hobolt and Spoon, who argued that protest voting is much less knowledge and information demanding.[138]

In contrast to H^1, H^2 can be accepted. Factual political knowledge does influence the aggregate election result, both party-choice and turnout, in the 2014 EP election to a lesser extent than in the 2009 EP election. This provides support to Hobolt and Spoon's study, which claims that increased politicization of the EU and the EP in the domestic debate increases the level of knowledge and contextual political information about the EU, the EP, and the political parties' positions on EU issues and enhances sincere voting on EU issues.[139]

Concerning the debate on the EU's democratic deficit, which was one of the main reasons for introducing direct elections to the EP[140], this deficit has diminished with the increasing politicization of the EU and the EP. The result points out that the distribution of political knowledge is less uneven in the population and among groups with distinctive and potentially competing political interests in 2014 compared with 2009.

6.1 Future research

I would like future EP election surveys to contain a good amount of factual political knowledge questions so that this type of study can be redone with data collected closer to the election. It would also be desirable if studies on this subject could be carried out covering a wide range of EU countries, which have different ratios between turnout in national parliamentary elections and EP elections, to better be able to generalize the results.

Future studies should be done, where the population's level of knowledge gradually changes, and the relative distances in levels of knowledge between individuals are kept constant. That will say, such simulations of election results as Bhatti and Hansen perform depict what happens if everyone is better

[138] Hobolt & Spoon (2012), p.701-709, 717, 719
[139] Hobolt & Spoon (2012), p.701-709, 717, 719
[140] Marsh & Mikhaylov (2010), p.5

or worse informed from their current level of knowledge, instead of everyone being assigned the same and maximum/minimum level of knowledge. This approach is more realistic and provides a more nuanced and more reasonable sense of information effects, as changes in this magnitude and shape which in this thesis are hardly reasonable in practice because the dispersion in knowledge in practice is constant or even increases during an informed debate.[141]

[141] Bhatti (2010), p.397; Hansen (2009), p.538

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Appendix

Appendix I: Index of factual political knowledge correlation with most of the important sources of political information and knowledge (tau-b)

	EP 2009 and national parliamentary 2010	EP 2014 and national parliamentary 2014
Education	0.17	0.21
Media exposure to political news on tv and radio	0.21	0.23
Media exposure to (political) news in the press	0.33	0.16
Media exposure to national political news in the press	0.32	0.37
Media exposure to EU political news in the press		0.25
The degree of election campaign exposure and activity in the national parliamentary election	0.13	0.11
The frequency of political discussions within the family, among friends and colleagues	0.13	0.10
The willingness to engage in political discussions	0.18	0.17
Political interest	0.34	0.37

Source: Election Study 2010.; Election Study 2014.
Comment: The question of media exposure to (political) news in the press, political is in parentheses because the question was so in the 2010's data but without political in 2014's data.

Appendix II: Multinomial logistic regression of European parliament election 2009, Did not vote is the reference category

European Parliament election 2009	Main effects	Interaction effects (the variable * knowledge)
Left Party		
Factual political knowledge	0.154***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-0.560***	0.027***
	(0.023)	(0.000)
Age (ref. cat. 18-40)		
41-60	-0.719***	0.008***
	(0.027)	(0.000)
61-84	-1.200	0.006
	(0.042)	(0.001)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	3.469***	-0.057***
	(0.027)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	0.373***	-0.014***
	(0.026)	(0.000)
Primary education	-8.774***	0.096***
	(0.138)	(0.002)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	1.166***	-0.021***
	(0.026)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	2.571***	-0.042***
	(0.026)	(0.000)
Income (ref. Cat. High income)		
Middle income	-7.715***	0.085***
	(0.058)	(0.001)
Low income	-2.137***	0.022***
	(0.030)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	1.801***	-0.041***
	(0.033)	(0.000)
Never	0.809***	-0.020***
	(0.029)	(0.000)
Left-right ideology	0.064***	-0.014***
	(0.006)	(0.000)
Intercept	-8.502***	
	(0.057)	
Social Democrats		
Factual political knowledge	0.094***	
	(0.000)	
Gender (ref. cat. Male)		
Female	-0.699***	0.021***
	(0.012)	(0.000)
Age (ref. cat. 18-40)		
41-60	3.708***	-0.062***
	(0.014)	(0.000)
61-84	2.797	-0.046
	(0.015)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	1.088***	-0.024***
	(0.014)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.543***	0.003***
	(0.013)	(0.000)
Primary education	-2.287***	0.028***
	(0.020)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	0.019	-0.001***
	(0.012)	(0.000)

Place of residence (ref. cat. Rural)		
Urban	0.070***	-0.003***
	(0.011)	(0.000)
Income (ref. Cat. High income)		
Middle income	1.146***	-0.017***
	(0.014)	(0.000)
Low income	2.044***	-0.039***
	(0.015)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.475***	-0.003***
	(0.014)	(0.000)
Never	-1.422***	0.004***
	(0.014)	(0.000)
Left-right ideology	-0.468***	-0.001***
	(0.003)	(0.000)
Intercept	-4.079***	
	(0.028)	
Green Party		
Factual political knowledge	0.212***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-0.926***	0.026***
	(0.016)	(0.000)
Age (ref. cat. 18-40)		
41-60	1.725***	-0.036***
	(0.018)	(0.000)
61-84	-1.804	-0.007
	(0.033)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	2.833***	-0.056***
	(0.019)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.479***	-0.010***
	(0.017)	(0.000)
Primary education	-3.626***	0.033***
	(0.045)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	2.270***	-0.036***
	(0.018)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	1.521***	-0.018***
	(0.017)	(0.000)
Income (ref. Cat. High income)		
Middle income	2.374***	-0.026***
	(0.022)	(0.000)
Low income	3.915***	-0.046***
	(0.022)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	5.008***	-0.080***
	(0.024)	(0.000)
Never	2.753***	-0.042***
	(0.024)	(0.000)
Left-right ideology	0.078***	-0.006***
	(0.004)	(0.000)
Intercept	-14.206***	
	(0.041)	
Center Party		
Factual political knowledge	0.119***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-3.418***	0.065***
	(0.024)	(0.000)
Age (ref. cat. 18-40)		
41-60	2.134***	-0.047***
	(0.027)	(0.000)
61-84	0.231	-0.004
	(0.027)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.246***	-0.024***

	(0.046)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-3.050***	0.037***
	(0.027)	(0.000)
Primary education	-2.502***	0.030***
	(0.032)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-1.122***	0.030***
	(0.026)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	0.155***	-0.027***
	(0.025)	(0.000)
Income (ref. Cat. High income)		
Middle income	10.553***	-0.123***
	(0.051)	(0.001)
Low income	10.733***	-0.132***
	(0.051)	(0.001)
Religious activity (ref. cat. More often)		
Once a year	-6.678***	0.061***
	(0.042)	(0.001)
Never	-4.046***	0.017***
	(0.037)	(0.001)
Left-right ideology	0.400***	-0.003***
	(0.006)	(0.000)
Intercept	-12.356***	
	(0.070)	
The Liberals		
Factual political knowledge	0.165***	
	(0.001)	
Gender (ref. cat. Male)		
Female	1.676***	-0.006***
	(0.020)	(0.000)
Age (ref. cat. 18-40)		
41-60	4.173***	-0.058***
	(0.020)	(0.000)
61-84	2.743	-0.030
	(0.023)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.532***	-0.032***
	(0.028)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.672***	-0.011***
	(0.021)	(0.000)
Primary education	-2.359***	0.017***
	(0.034)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	4.620***	-0.048***
	(0.025)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	1.506***	0.011***
	(0.023)	(0.000)
Income (ref. Cat. High income)		
Middle income	4.297***	-0.053***
	(0.021)	(0.000)
Low income	3.166***	-0.045***
	(0.024)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	3.677***	-0.058***
	(0.021)	(0.000)
Never	2.834***	-0.046***
	(0.022)	(0.000)
Left-right ideology	0.383***	0.003***
	(0.005)	(0.000)
Intercept	-19.955***	
	(0.064)	
Moderate Party		

Factual political knowledge	0.050***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-1.474***	0.027***
	(0.015)	(0.000)
Age (ref. cat. 18-40)		
41-60	1.888***	-0.027***
	(0.016)	(0.000)
61-84	-0.160	0.007
	(0.021)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.738***	-0.016***
	(0.019)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-3.054***	0.034***
	(0.017)	(0.000)
Primary education	-5.632***	0.061***
	(0.037)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	0.343***	0.003***
	(0.018)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	1.286***	-0.017***
	(0.015)	(0.000)
Income (ref. cat. High income)		
Middle income	2.065***	-0.035***
	(0.019)	(0.000)
Low income	3.758***	-0.063***
	(0.017)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	0.922***	-0.019***
	(0.019)	(0.000)
Never	0.759***	-0.017***
	(0.018)	(0.000)
Left-right ideology	0.491***	0.005***
	(0.005)	(0.000)
Intercept	-9.945***	
	(0.045)	
Christian Democrats		
Factual political knowledge	0.055***	
	(0.001)	
Gender (ref. cat. Male)		
Female	0.875***	-0.001*
	(0.033)	(0.000)
Age (ref. cat. 18-40)		
41-60	4.395***	-0.062***
	(0.037)	(0.001)
61-84	4.031	-0.051
	(0.038)	(0.001)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-6.051***	0.078***
	(0.069)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-2.919***	0.029***
	(0.033)	(0.000)
Primary education	-15.401***	0.174***
	(0.141)	(0.002)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.583***	0.004***
	(0.034)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	4.271***	-0.059***
	(0.027)	(0.000)
Income (ref. cat. High income)		
Middle income	1.963***	-0.024***
	(0.033)	(0.000)

Low income	-4.737***	0.053***
	(0.060)	(0.001)
Religious activity (ref. cat. More often)		
Once a year	1.083***	-0.052***
	(0.030)	(28.158)
Never	-21.715	-0.058
	(1571.881)	(0.000)
Left-right ideology	-0.224***	0.012***
	(0.007)	(0.000)
Intercept	-8.856***	
	(0.071)	
Pirate Party		
Factual political knowledge	0.049***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-5.335***	0.066***
	(0.024)	(0.000)
Age (ref. cat. 18-40)		
41-60	-1.520***	0.008***
	(0.023)	(0.000)
61-84	-1.917	-0.011
	(0.046)	(0.001)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.942***	-0.027***
	(0.023)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-1.774***	0.014***
	(0.019)	(0.000)
Primary education	-8.777***	0.110***
	(0.056)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	2.184***	-0.048***
	(0.016)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	2.146***	-0.027***
	(0.017)	(0.000)
Income (ref. cat. High income)		
Middle income	1.240***	-0.006***
	(0.022)	(0.000)
Low income	2.081***	-0.031***
	(0.022)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	1.355***	-0.024***
	(0.029)	(0.000)
Never	0.014	0.000
	(0.029)	(0.000)
Left-right ideology	-0.235***	0.003***
	(0.004)	(0.000)
Intercept	-3.793***	
	(0.045)	
Did not vote base		
Number of respondents	912	
Nagelkerke pseudo-r2	1.000	
Mcfadden pseudo-r2	0.331	

Source: Election Study 2010.; Election Study 2014.
Comment: b-values, standard errors in parentheses, * p < 0.05, ** p < 0.01, *** p < 0.001

Appendix III: Multinomial logistic regression of National parliamentary election 2010, Did not vote is the reference category

National Parliamentary election 2010	Main effects	Interaction effects (the variable * knowledge)
Left Party		
Factual political knowledge	0.104***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-0.179***	0.015***
	(0.015)	(0.000)
Age (ref. cat. 18-40)		
41-60	2.045***	-0.042***
	(0.018)	(0.000)
61-84	2.251	-0.059
	(0.021)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	1.044***	-0.030***
	(0.016)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.015	0.004***
	(0.020)	(0.000)
Primary education	-0.016	-0.011***
	(0.024)	(0.000)
Occupation (ref. Cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.225***	0.010***
	(0.016)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	1.913***	-0.022***
	(0.016)	(0.000)
Income (ref. cat. High income)		
Middle income	1.517***	-0.037***
	(0.020)	(0.000)
Low income	1.191***	-0.025***
	(0.020)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-1.010***	0.024***
	(0.022)	(0.000)
Never	-0.381***	0.016***
	(0.019)	(0.000)
Left-right ideology	-0.941***	-0.001***
	(0.005)	(0.000)
Intercept	-3.423***	
	(0.038)	
Social Democrats		
Factual political knowledge	0.080***	
	(0.000)	
Gender (ref. cat. Male)		
Female	0.191***	0.016***
	(0.008)	(0.000)
Age (ref. cat. 18-40)		
41-60	2.905***	-0.056***
	(0.010)	(0.000)
61-84	3.138	-0.055
	(0.011)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.642***	-0.035***
	(0.009)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	0.141***	0.009***
	(0.011)	(0.000)
Primary education	-0.576***	0.012***
	(0.012)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.963***	0.026***
	(0.009)	(0.000)

Place of residence (ref. cat. Rural)		
Urban	0.650***	-0.010***
	(0.008)	(0.000)
Income (ref. cat. High income)		
Middle income	0.516***	-0.016***
	(0.011)	(0.000)
Low income	1.462***	-0.045***
	(0.011)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.085***	0.019***
	(0.010)	(0.000)
Never	0.209***	-0.005***
	(0.010)	(0.000)
Left-right ideology	-0.365***	-0.004***
	(0.002)	(0.000)
Intercept	-1.599***	
	(0.020)	
Green Party		
Factual political knowledge	0.127***	
	(0.001)	
Gender (ref. cat. Male)		
Female	0.522***	0.012***
	(0.014)	(0.000)
Age (ref. cat. 18-40)		
41-60	0.457***	-0.035***
	(0.018)	(0.000)
61-84	1.935	-0.065
	(0.019)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.566***	-0.029***
	(0.017)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.790***	0.008***
	(0.016)	(0.000)
Primary education	-2.676***	0.022***
	(0.022)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	2.779***	-0.024***
	(0.017)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	1.121***	-0.021***
	(0.014)	(0.000)
Income (ref. cat. High income)		
Middle income	2.259***	-0.037***
	(0.018)	(0.000)
Low income	2.270***	-0.043***
	(0.019)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.346***	0.019***
	(0.017)	(0.000)
Never	-0.408***	0.008***
	(0.016)	(0.000)
Left-right ideology	-0.576***	0.001***
	(0.004)	(0.000)
Intercept	-5.608***	
	(0.034)	
Center Party		
Factual political knowledge	0.031***	
	(0.001)	
Gender (ref. cat. Male)		
Female	1.043***	0.014***
	(0.015)	(0.000)
Age (ref. cat. 18-40)		
41-60	1.120***	-0.025***
	(0.017)	(0.000)
61-84	1.618	-0.029
	(0.018)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-0.616***	-0.019***

	(0.023)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-1.173***	0.019***
	(0.018)	(0.000)
Primary education	-0.427***	-0.015***
	(0.021)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.925***	0.029***
	(0.016)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	-0.368***	-0.008***
	(0.015)	(0.000)
Income (ref. cat. High income)		
Middle income	2.752***	-0.045***
	(0.020)	(0.000)
Low income	2.210***	-0.047***
	(0.020)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-3.005***	0.050***
	(0.018)	(0.000)
Never	-0.828***	0.005***
	(0.016)	(0.000)
Left-right ideology	0.033***	0.008***
	(0.004)	(0.000)
Intercept	-5.194***	
	(0.036)	
The Liberals		
Factual political knowledge	-0.022***	
	(0.001)	
Gender (ref. cat. Male)		
Female	0.271***	0.016***
	(0.014)	(0.000)
Age (ref. cat. 18-40)		
41-60	0.596***	-0.012***
	(0.017)	(0.000)
61-84	2.332	-0.033
	(0.017)	(0.000)
Swedish/foreign background (ref. cat. Swedish)		
Foreign	-1.669***	-0.006***
	(0.021)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.861***	0.008***
	(0.018)	(0.000)
Primary education	0.674***	-0.034***
	(0.020)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.724***	0.029***
	(0.015)	(0.000)
Place of residence (ref. Cat. Rural)		
Urban	1.295***	-0.012***
	(0.014)	(0.000)
Income (ref. cat. High income)		
Middle income	-0.082***	-0.007***
	(0.017)	(0.000)
Low income	-0.405***	-0.015***
	(0.019)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	0.597***	0.007***
	(0.017)	(0.000)
Never	0.075***	0.006***
	(0.017)	(0.000)
Left-right ideology	-0.057***	0.012***
	(0.004)	(0.000)
Intercept	-3.804***	
	(0.035)	
Moderate Party		

Factual political knowledge	-0.014***	
	(0.000)	
Gender (ref. cat. Male)		
Female	0.175***	0.013***
	(0.009)	(0.000)
Age (ref. cat. 18-40)		
41-60	0.306***	-0.014***
	(0.011)	(0.000)
61-84	0.234	-0.012
	(0.014)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-0.358***	-0.019***
	(0.012)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.194***	0.004***
	(0.011)	(0.000)
Primary education	-1.744***	0.007***
	(0.014)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	0.264***	0.007***
	(0.010)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	0.854***	-0.019***
	(0.009)	(0.000)
Income (ref. cat. High income)		
Middle income	0.336***	-0.021***
	(0.012)	(0.000)
Low income	0.209***	-0.032***
	(0.012)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.382***	0.029***
	(0.012)	(0.000)
Never	-0.072***	0.006***
	(0.011)	(0.000)
Left-right ideology	0.147***	0.013***
	(0.003)	(0.000)
Intercept	-3.083***	
	(0.024)	
Christian Democrats		
Factual political knowledge	0.003***	
	(0.001)	
Gender (ref. cat. Male)		
Female	3.172***	-0.027***
	(0.019)	(0.000)
Age (ref. cat. 18-40)		
41-60	2.444***	-0.051***
	(0.017)	(0.000)
61-84	2.318	-0.036
	(0.019)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-0.456***	-0.013***
	(0.020)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.542***	0.009***
	(0.018)	(0.000)
Primary education	-2.738***	0.018***
	(0.028)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-1.037***	0.026***
	(0.017)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	1.807***	-0.031***
	(0.015)	(0.000)
Income (ref. cat. High income)		
Middle income	2.219***	-0.037***
	(0.021)	(0.000)

Low income	1.987***	-0.043***
	(0.020)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-3.042***	0.058***
	(0.017)	(0.000)
Never	-5.295***	0.057***
	(0.026)	(0.000)
Left-right ideology	0.061***	0.016***
	(0.004)	(0.000)
Intercept	-7.047***	
	(0.042)	
Sweden Democrats		
Factual political knowledge	-0.038***	
	(0.001)	
Gender (ref. cat. Male)		
Female	1.394***	-0.027***
	(0.012)	(0.000)
Age (ref. cat. 18-40)		
41-60	-0.554***	0.010***
	(0.016)	(0.000)
61-84	-0.194	0.010
	(0.018)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.622***	-0.069***
	(0.019)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	0.563***	0.009***
	(0.019)	(0.000)
Primary education	-0.488***	0.007***
	(0.021)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	0.295***	-0.005***
	(0.012)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	-0.020	-0.009***
	(0.012)	(0.000)
Income (ref. cat. High income)		
Middle income	-1.048***	0.011***
	(0.016)	(0.000)
Low income	-1.110***	0.013***
	(0.015)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	0.970***	0.014***
	(0.018)	(0.000)
Never	0.883***	0.013***
	(0.018)	(0.000)
Left-right ideology	-0.032***	0.008***
	(0.003)	(0.000)
Intercept	-2.435***	
	(0.033)	
Other Party		
Factual political knowledge	-0.032***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-5.116***	0.095***
	(0.031)	(0.000)
Age (ref. cat. 18-40)		
41-60	2.180***	-0.067***
	(0.042)	(0.001)
61-84	6.145	-0.124
	(0.039)	(0.001)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-1.186***	-0.013***
	(0.046)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-5.763***	0.088***
	(0.036)	(0.001)
Primary education	-12.990***	0.181***
	(0.069)	(0.001)

Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.941***	-0.008***
	(0.033)	(0.001)
Place of residence (ref. cat. Rural)		
Urban	-0.689***	0.014***
	(0.031)	(0.000)
Income (ref. Cat. High income)		
Middle income	0.689***	-0.024***
	(0.038)	(0.001)
Low income	0.582***	-0.024***
	(0.034)	(0.001)
Religious activity (ref. Cat. More often)		
Once a year	1.678***	-0.040***
	(0.047)	(0.001)
Never	-0.534***	0.019***
	(0.035)	(0.001)
Left-right ideology	-0.952***	0.011***
	(0.008)	(0.000)
Intercept	3.542***	
	(0.071)	
Did not vote base		
Number of respondents	1 244	
Nagelkerke pseudo-r2	1.000	
Mcfadden pseudo-r2	0.311	

Source: Election Study 2010.; Election Study 2014.
Comment: b-values, standard errors in parentheses, * p < 0.05, ** p < 0.01, *** p < 0.001

Appendix IV: Multinomial logistic regression of European parliament election 2014, Did not vote is the reference category

European Parliament election 2014	Main effects	Interaction effects (the variable * knowledge)
Left Party		
Factual political knowledge	0.162***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-4.024***	0.063***
	(0.021)	(0.000)
Age (ref. cat. 18-40)		
41-60	-0.547***	-0.002***
	(0.029)	(0.000)
61-84	-0.344	-0.009
	(0.028)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-4.649***	0.040***
	(0.095)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-2.341***	0.019***
	(0.031)	(0.000)
Primary education	-2.030	0.001***
	(0.041)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-2.892***	0.045***
	(0.031)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	2.185***	-0.022***
	(0.022)	(0.000)
Income (ref. cat. High income)		
Middle income	0.512***	-0.010***
	(0.028)	(0.000)
Low income	2.105***	-0.036***
	(0.030)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	7.886***	-0.102***
	(0.050)	(0.001)
Never	5.069***	-0.067***
	(0.051)	(0.001)
Left-right ideology	0.053***	-0.018***
	(0.005)	(0.000)
Intercept	-9.257***	
	(0.072)	
Social Democrats		
Factual political knowledge	0.061***	
	(0.000)	
Gender (ref. cat. Male)		
Female	-1.052***	0.022***
	(0.010)	(0.000)
Age (ref. cat. 18-40)		
41-60	-2.011***	0.020***
	(0.013)	(0.000)
61-84	-0.903	0.012
	(0.012)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-1.112***	0.001
	(0.019)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	1.832***	-0.023***
	(0.013)	(0.000)
Primary education	2.089***	-0.028***
	(0.018)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	1.408***	-0.010***
	(0.011)	(0.000)

Place of residence (ref. cat. Rural)		
Urban	-0.147***	0.004***
	(0.009)	(0.000)
Income (ref. cat. High income)		
Middle income	0.676***	-0.009***
	(0.013)	(0.000)
Low income	0.944***	-0.021***
	(0.015)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.655***	-0.001
	(0.012)	(0.000)
Never	-1.116***	-0.001***
	(0.014)	(0.000)
Left-right ideology	-0.292***	-0.005***
	(0.003)	(0.000)
Intercept	-2.176***	
	(0.025)	
Green Party		
Factual political knowledge	0.078***	
	(0.000)	
Gender (ref. cat. Male)		
Female	0.199***	0.010***
	(0.013)	(0.000)
Age (ref. cat. 18-40)		
41-60	-0.784***	0.001***
	(0.015)	(0.000)
61-84	0.064	-0.014
	(0.016)	(0.000)
Swedish/foreign background (ref. cat. Swedish)		
Foreign	-2.182***	0.020***
	(0.024)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	2.329***	-0.054***
	(0.016)	(0.000)
Primary education	-0.811***	-0.025***
	(0.040)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	2.322***	-0.016***
	(0.015)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	-0.721***	0.024***
	(0.013)	(0.000)
Income (ref. cat. High income)		
Middle income	0.277***	-0.007***
	(0.016)	(0.000)
Low income	-0.470***	0.008***
	(0.017)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.440***	-0.003***
	(0.015)	(0.000)
Never	0.227***	-0.006***
	(0.016)	(0.000)
Left-right ideology	-0.204***	-0.004***
	(0.003)	(0.000)
Intercept	-4.804***	
	(0.033)	
Center Party		
Factual political knowledge	-0.050***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-1.107***	0.024***
	(0.021)	(0.000)
Age (ref. cat. 18-40)		
41-60	-3.434***	0.034***
	(0.024)	(0.000)
61-84	-4.888	0.045
	(0.034)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.670***	-0.031***

	(0.040)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-0.867***	0.003***
	(0.026)	(0.000)
Primary education	0.511***	-0.001
	(0.037)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-1.132***	0.029***
	(0.026)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	0.991***	-0.009***
	(0.020)	(0.000)
Income (ref. cat. High income)		
Middle income	-1.855***	0.017***
	(0.027)	(0.000)
Low income	-2.602***	0.035***
	(0.029)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.254***	-0.001
	(0.021)	(0.001)
Never	-8.194***	0.093***
	(0.045)	(0.000)
Left-right ideology	0.034***	0.005***
	(0.006)	(0.000)
Intercept	-0.786***	
	(0.056)	
The Liberals		
Factual political knowledge	-0.033***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-2.661***	0.041***
	(0.016)	(0.000)
Age (ref. cat. 18-40)		
41-60	-0.992***	0.018***
	(0.022)	(0.000)
61-84	-0.831	0.025
	(0.021)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	1.330***	-0.022***
	(0.027)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-1.837***	0.002***
	(0.022)	(0.000)
Primary education	-1.754***	-0.001
	(0.033)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-2.593***	0.040***
	(0.021)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	0.527***	0.003***
	(0.017)	(0.000)
Income (ref. cat. High income)		
Middle income	-0.669***	0.002***
	(0.020)	(0.000)
Low income	0.316***	-0.004***
	(0.022)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.244***	-0.004***
	(0.018)	(0.000)
Never	-1.934***	0.019***
	(0.022)	(0.000)
Left-right ideology	0.235***	0.000
	(0.004)	(0.000)
Intercept	-0.967***	
	(0.044)	
Moderate Party		

Factual political knowledge	-0.003***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-0.443***	0.012***
	(0.015)	(0.000)
Age (ref. cat. 18-40)		
41-60	1.172***	-0.008***
	(0.019)	(0.000)
61-84	2.383	-0.023
	(0.020)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	4.000***	-0.065***
	(0.023)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-1.120***	0.015***
	(0.019)	(0.000)
Primary education	-4.671***	0.048***
	(0.041)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.084***	0.011***
	(0.016)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	-0.481***	0.007***
	(0.015)	(0.000)
Income (ref. cat. High income)		
Middle income	-1.367***	0.014***
	(0.018)	(0.000)
Low income	0.759***	-0.026***
	(0.020)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.864***	0.009***
	(0.016)	(0.000)
Never	-0.640***	-0.002***
	(0.021)	(0.000)
Left-right ideology	0.616***	0.003***
	(0.005)	(0.000)
Intercept	-7.370***	
	(0.046)	
Christian Democrats		
Factual political knowledge	0.004***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-2.313***	0.034***
	(0.026)	(0.000)
Age (ref. cat. 18-40)		
41-60	-4.182***	0.073***
	(0.031)	(0.000)
61-84	-3.344	0.067
	(0.031)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-0.836***	0.013***
	(0.041)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-0.248***	-0.008***
	(0.031)	(0.000)
Primary education	-19.736***	0.208***
	(0.185)	(0.002)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	0.720***	-0.013***
	(0.031)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	0.610***	-0.007***
	(0.023)	(0.000)
Income (ref. cat. High income)		
Middle income	0.855***	-0.020***
	(0.029)	(0.000)

Low income	-0.702***	-0.001
	(0.038)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-2.660***	0.010***
	(0.026)	(0.001)
Never	-11.127***	0.106***
	(0.080)	(0.000)
Left-right ideology	0.812***	-0.003***
	(0.007)	(0.000)
Intercept	-5.480***	
	(0.070)	
Sweden Democrats		
Factual political knowledge	-0.142***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-0.296***	0.001***
	(0.012)	(0.000)
Age (ref. cat. 18-40)		
41-60	-4.205***	0.083***
	(0.018)	(0.000)
61-84	-3.869	0.078
	(0.018)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-23.765	-0.003
	(1916.957)	(34.392)
Education (ref. cat. Tertiary education)		
Secondary education	-1.255***	0.023***
	(0.020)	(0.000)
Primary education	1.285***	-0.040***
	(0.024)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.922***	0.004***
	(0.018)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	-2.199***	0.031***
	(0.012)	(0.000)
Income (ref. cat. High income)		
Middle income	-0.643***	0.009***
	(0.018)	(0.000)
Low income	-1.801***	0.034***
	(0.019)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-1.935***	0.014***
	(0.016)	(0.000)
Never	-2.130***	0.028***
	(0.017)	(0.000)
Left-right ideology	-0.278***	0.007***
	(0.003)	(0.000)
Intercept	5.677***	
	(0.037)	
Feminist Initiative		
Factual political knowledge	0.119***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-0.526***	0.037***
	(0.019)	(0.000)
Age (ref. cat. 18-40)		
41-60	-0.877***	-0.017***
	(0.022)	(0.000)
61-84	-2.596	-0.014
	(0.033)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-24.675	0.005
	(2551.065)	(43.099)
Education (ref. cat. Tertiary education)		
Secondary education	2.582***	-0.057***
	(0.025)	(0.000)
Primary education	4.250***	-0.058***
	(0.026)	(0.000)

Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	0.392***	0.001***
	(0.019)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	0.906***	-0.005***
	(0.017)	(0.000)
Income (ref. cat. High income)		
Middle income	-0.219***	-0.011***
	(0.027)	(0.000)
Low income	1.950***	-0.050***
	(0.028)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-3.201***	0.035***
	(0.023)	(0.000)
Never	-2.186***	0.023***
	(0.023)	(0.000)
Left-right ideology	0.242***	-0.017***
	(0.004)	(0.000)
Intercept	-5.607***	
	(0.044)	
Other Party		
Factual political knowledge	-0.127***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-1.009***	-0.005***
	(0.029)	(0.001)
Age (ref. cat. 18-40)		
41-60	-4.386***	0.052***
	(0.034)	(0.001)
61-84	-9.297	0.093
	(0.085)	(0.001)
Swedish/foreign background (ref. cat. Swedish)		
Foreign	-4.962***	0.080***
	(0.045)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-2.076***	0.034***
	(0.033)	(0.001)
Primary education	-2.063***	0.044***
	(0.038)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	2.288***	0.013***
	(0.042)	(0.001)
Place of residence (ref. cat. Rural)		
Urban	0.145***	0.002***
	(0.024)	(0.000)
Income (ref. cat. High income)		
Middle income	-3.952***	0.046***
	(0.038)	(0.001)
Low income	-5.364***	0.082***
	(0.038)	(0.001)
Religious activity (ref. cat. More often)		
Once a year	-3.492***	0.063***
	(0.042)	(0.001)
Never	-1.449***	0.022***
	(0.043)	(0.001)
Left-right ideology	-0.301***	-0.002***
	(0.006)	(0.000)
Intercept	5.340***	
	(0.073)	
Did not vote base		
Number of respondents	828	
Nagelkerke pseudo-r2	1.000	
Mcfadden pseudo-r2	0.280	

Source: Election Study 2010.; Election Study 2014.
Comment: b-values, standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Appendix V: Multinomial logistic regression of National parliamentary election 2014, Did not vote is the reference category

National parliamentary election 2014	Main effects	Interaction effects (the variable * knowledge)
Left Party		
Factual political knowledge	0.086***	
	(0.001)	
Gender (ref. cat. Male)		
Female	0.775***	0.012***
	(0.017)	(0.000)
Age (ref. cat. 18-40)		
41-60	1.762***	-0.010***
	(0.022)	(0.000)
61-84	0.378	-0.004
	(0.021)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-2.023***	-0.004***
	(0.040)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	2.658***	-0.030***
	(0.026)	(0.000)
Primary education	1.410***	-0.052***
	(0.043)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	1.240***	-0.012***
	(0.024)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	2.132***	-0.024***
	(0.017)	(0.000)
Income (ref. cat. High income)		
Middle income	-1.036***	0.019***
	(0.025)	(0.000)
Low income	0.364***	-0.014***
	(0.026)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	2.606***	-0.034***
	(0.026)	(0.000)
Never	2.147***	-0.027***
	(0.027)	(0.000)
Left-right ideology	-1.395***	0.002***
	(0.005)	(0.000)
Intercept	-3.723***	
	(0.046)	
Social Democrats		
Factual political knowledge	0.040***	
	(0.000)	
Gender (ref. cat. Male)		
Female	1.005***	0.007***
	(0.010)	(0.000)
Age (ref. cat. 18-40)		
41-60	2.147***	-0.019***
	(0.014)	(0.000)
61-84	-0.299	0.014
	(0.010)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-2.329***	0.021***
	(0.016)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	3.625***	-0.031***
	(0.015)	(0.000)
Primary education	6.475***	-0.089***
	(0.019)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	2.356***	-0.034***
	(0.013)	(0.000)

Place of residence (ref. cat. Rural)		
Urban	2.526***	-0.030***
	(0.009)	(0.000)
Income (ref. cat. High income)		
Middle income	-1.779***	0.026***
	(0.015)	(0.000)
Low income	-0.330***	-0.021***
	(0.015)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.042**	-0.001***
	(0.014)	(0.000)
Never	0.028	-0.005***
	(0.014)	(0.000)
Left-right ideology	-1.096***	0.008***
	(0.003)	(0.000)
Intercept	-0.701***	
	(0.026)	
Green Party		
Factual political knowledge	0.033***	
	(0.001)	
Gender (ref. cat. Male)		
Female	1.594***	-0.003***
	(0.015)	(0.000)
Age (ref. cat. 18-40)		
41-60	-0.157***	0.008***
	(0.019)	(0.000)
61-84	-2.406	0.022
	(0.020)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.996***	-0.048***
	(0.026)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	2.634***	-0.039***
	(0.020)	(0.000)
Primary education	7.905***	-0.141***
	(0.030)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	2.744***	-0.028***
	(0.019)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	2.240***	-0.026***
	(0.015)	(0.000)
Income (ref. cat. High income)		
Middle income	-0.515***	0.011***
	(0.021)	(0.000)
Low income	-2.574***	0.030***
	(0.022)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-2.209***	0.033***
	(0.020)	(0.000)
Never	-0.939***	0.023***
	(0.020)	(0.000)
Left-right ideology	-0.868***	0.008***
	(0.004)	(0.000)
Intercept	-2.056***	
	(0.039)	
Center Party		
Factual political knowledge	-0.007***	
	(0.001)	
Gender (ref. cat. Male)		
Female	-0.020	0.025***
	(0.019)	(0.000)
Age (ref. cat. 18-40)		
41-60	0.754***	-0.005***
	(0.023)	(0.000)
61-84	-2.098	0.025
	(0.024)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	0.368***	-0.013***

	(0.039)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-2.536***	0.043***
	(0.024)	(0.000)
Primary education	-4.038***	0.046***
	(0.037)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	1.086***	-0.015***
	(0.023)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	-2.794***	0.036***
	(0.019)	(0.000)
Income (ref. cat. High income)		
Middle income	-0.168***	-0.010***
	(0.026)	(0.000)
Low income	2.027***	-0.042***
	(0.025)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-2.202***	0.023***
	(0.020)	(0.000)
Never	-2.569***	0.018***
	(0.027)	(0.000)
Left-right ideology	0.520***	0.006***
	(0.006)	(0.000)
Intercept	-4.993***	
	(0.051)	
The Liberals		
Factual political knowledge	0.016***	
	(0.001)	
Gender (ref. cat. Male)		
Female	1.778***	-0.007***
	(0.019)	(0.000)
Age (ref. cat. 18-40)		
41-60	-1.079***	0.018***
	(0.024)	(0.000)
61-84	-3.230	0.048
	(0.022)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-1.803***	0.019***
	(0.037)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	1.048***	-0.006***
	(0.023)	(0.000)
Primary education	3.650***	-0.054***
	(0.032)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	3.725***	-0.041***
	(0.022)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	1.981***	-0.017***
	(0.020)	(0.000)
Income (ref. cat. High income)		
Middle income	-1.102***	0.005***
	(0.024)	(0.000)
Low income	-2.279***	0.012***
	(0.027)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-0.315***	-0.003***
	(0.022)	(0.000)
Never	-1.664***	0.022***
	(0.025)	(0.000)
Left-right ideology	-0.081***	0.011***
	(0.006)	(0.000)
Intercept	-6.383***	
	(0.049)	
Moderate Party		

Factual political knowledge	-0.190***	
	(0.001)	
Gender (ref. cat. Male)		
Female	1.142***	-0.002***
	(0.012)	(0.000)
Age (ref. cat. 18-40)		
41-60	-0.920***	0.032***
	(0.016)	(0.000)
61-84	-1.559	0.030
	(0.014)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	1.922***	-0.036***
	(0.019)	(0.000)
Education (ref. cat. Tertiary education)		
Secondary education	-0.936***	0.020***
	(0.017)	(0.000)
Primary education	-0.572***	-0.001***
	(0.022)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	0.987***	-0.011***
	(0.014)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	-0.459***	0.005***
	(0.011)	(0.000)
Income (ref. cat. High income)		
Middle income	-2.732***	0.026***
	(0.017)	(0.000)
Low income	-0.202***	-0.021***
	(0.016)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-2.010***	0.029***
	(0.015)	(0.000)
Never	-2.640***	0.040***
	(0.016)	(0.000)
Left-right ideology	-0.379***	0.027***
	(0.004)	(0.000)
Intercept	4.060***	
	(0.032)	
Christian Democrats		
Factual political knowledge	0.011***	
	(0.001)	
Gender (ref. cat. Male)		
Female	1.142***	0.001***
	(0.022)	(0.000)
Age (ref. cat. 18-40)		
41-60	-1.929***	0.036***
	(0.027)	(0.000)
61-84	-6.576	0.095
	(0.027)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-2.144***	0.036***
	(0.039)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	-0.126***	0.012***
	(0.025)	(0.000)
Primary education	0.243***	-0.021***
	(0.036)	(0.001)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	4.287***	-0.053***
	(0.024)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	-1.171***	0.018***
	(0.020)	(0.000)
Income (ref. cat. High income)		
Middle income	0.508***	-0.009***
	(0.025)	(0.000)

Low income	-0.702***	-0.011***
	(0.032)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-2.745***	0.021***
	(0.023)	(0.000)
Never	-4.264***	0.038***
	(0.030)	(0.000)
Left-right ideology	0.794***	0.004***
	(0.006)	(0.000)
Intercept	-8.048***	
	(0.054)	
Sweden Democrats		
Factual political knowledge	-0.151***	
	(0.001)	
Gender (ref. cat. Male)		
Female	3.145***	-0.040***
	(0.012)	(0.000)
Age (ref. cat. 18-40)		
41-60	0.328***	0.025***
	(0.016)	(0.000)
61-84	-1.455	0.040
	(0.013)	(0.000)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-1.232***	-0.027***
	(0.034)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	1.754***	-0.003***
	(0.019)	(0.000)
Primary education	3.891***	-0.048***
	(0.023)	(0.000)
Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	-0.255***	0.000***
	(0.016)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	0.811***	-0.006***
	(0.011)	(0.000)
Income (ref. cat. High income)		
Middle income	-3.680***	0.052***
	(0.017)	(0.000)
Low income	-3.184***	0.038***
	(0.017)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-2.563***	0.038***
	(0.015)	(0.000)
Never	-1.327***	0.024***
	(0.016)	(0.000)
Left-right ideology	-1.046***	0.024***
	(0.003)	(0.000)
Intercept	5.093***	
	(0.033)	
Feminist Initiative		
Factual political knowledge	0.082***	
	(0.001)	
Gender (ref. cat. Male)		
Female	0.394***	0.031***
	(0.021)	(0.000)
Age (ref. cat. 18-40)		
41-60	2.735***	-0.047***
	(0.025)	(0.000)
61-84	-7.489	0.070
	(0.047)	(0.001)
Swedish/Foreign background (ref. cat. Swedish)		
Foreign	-2.732***	0.005***
	(0.051)	(0.001)
Education (ref. cat. Tertiary education)		
Secondary education	3.798***	-0.039***
	(0.026)	(0.000)
Primary education	9.387***	-0.130***
	(0.034)	(0.001)

Occupation (ref. cat. Industrial workers, Other blue-collar workers, White-collar workers and Self-employed)		
Qualified white-collar workers, Higher white-collar workers, Farmers and Students	2.571***	-0.028***
	(0.023)	(0.000)
Place of residence (ref. cat. Rural)		
Urban	5.756***	-0.067***
	(0.024)	(0.000)
Income (ref. cat. High income)		
Middle income	-0.133***	-0.009***
	(0.030)	(0.000)
Low income	1.157***	-0.039***
	(0.031)	(0.000)
Religious activity (ref. cat. More often)		
Once a year	-3.058***	0.041***
	(0.025)	(0.000)
Never	-3.040***	0.049***
	(0.026)	(0.000)
Left-right ideology	-1.178***	0.004***
	(0.006)	(0.000)
Intercept	-4.777***	
	(0.052)	
Did not vote base		
Number of respondents	857	
Nagelkerke pseudo-r2	1.000	
Mcfadden pseudo-r2	0.320	

Source: Election Study 2010.; Election Study 2014.
Comment: b-values, standard errors in parentheses, * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$