European Inclusion:

Electoral Differences and Individual Participation

in European Parliament Elections

Inauguraldissertation

zur

Erlangung des Doktorgrades

der

Wirtschafts- und Sozialwissenschaftlichen Fakultät

der

Universität zu Köln

2014

Vorgelegt von

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Würzburg

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Tag der Promotion: 30.01.2015

Acknowledgement

Abstract

This book investigates electoral procedures and their effects on individual participation in different elections within multi–level political systems. My basic research expectation is that electoral differences – i.e. differences in electoral procedures, for example between the 2009 European Parliament (EP) election and the previous national parliamentary elections in the member states of the European Union (EU) – reduce the individual understanding and thus participation in the EP election. As I show, the individual voter knows less about the EU than about her domestic politics, due to the EU's lower political salience. Instead, the multi–level structure of the EU and its member states enables the individual to resort to political knowledge acquired on the domestic level, using it as a proxy for knowledge of the EU. That is, the individual employs a domestic perspective on the EU. But electoral differences cause this domestic perspective to fail, due to inappropriate reliance on other political knowledge. As a consequence, individual political knowledge about the EU is lower, reducing the individual understanding of the EU and the EP election. On the one hand, this lower understanding implies that political knowledge is more relevant in the context of electoral differences. It increases the individual's awareness of electoral differences, enabling her to overcome the consequences of such differences for the EU and the EP election. On the other hand, electoral differences also mean that greater political knowledge has a demobilizing effect. If the consequences of the differences are not in line with the individual's political preferences, they discourage her from casting a ballot for the EP. In short, electoral differences matter, diminishing the individual understanding of the EU and reducing individual participation in the EP election.

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1. Introduction

Political participation, for example in terms of voting in an election, is a prerequisite of a well–functioning democracy. High electoral participation legitimizes the political institution elected – for example, a parliament and its legislative implementations – while at the same time it ensures the representation of citizens' political preferences in that institution and thus their inclusion in politics (Downs 1957; Campbell et al. 1964; Dahl 1971, 2000; Verba and Nie 1972; Wolfinger and Rosenstone 1980; Crepaz 1996; Lijphart 1999; Farrell 2001; Kaiser 2002). Lack of individual electoral participation hence undermines the legitimization of the institution elected as well as reduces individual inclusion in the political system and in politics.

There is consequently a long tradition of research into electoral participation, trying to explain why some citizens participate in an election, while others abstain. On the individual level, such research has shown that the likelihood of someone's ballot being cast in an election depends on individual characteristics, such as political socialization or political knowledge (Lipset 1960; Converse 1964; Glenn and Grimes 1968; Nie et al. 1974; Sears 1975; Milbrath and Goel 1977; Neuman 1981, 1986; Dalton 1984, 2002; Luskin 1990; Zaller 1992; Delli Carpini and Keeter 1993, 1996; Matsusaka 1995; Verba et al. 1995; Wagner 2012; Clawson and Oxley 2013).

Besides individual characteristics, political research on electoral participation also examines various influences at the national level, such as political traditions, electoral rules employed, and the political alternatives contested (Lipset 1960; Lijphart 1985, 1999; Granberg and Holmberg 1988; Blais and Carty 1990; Lijphart and Crepaz 1991; Crepaz 1996; Ladner and Milner 1999; Dahl 2000; Farrell 2001; Perea 2002; Mainwaring and Zoco 2007; Norris 2007; Rose and Munro 2009). The exclusion of individuals due to such institutional settings is a significant problem. In contrast to individual characteristics, institutional barriers of voting derive from the broader political system. The reduction in electoral participation they cause contradicts the democratic prerequisite of maximizing votes cast to ensure both legitimization of the institution elected and individual political inclusion.

In this book, I focus on institutional barriers to participating in elections in a multi–level political system. I show how differences in the electoral procedures of two elections within the same political system cause systematically lower participation in one election, compared to the other. I assume that the individual voter has expectations about the political relevance of each of these political levels. Because acquiring political knowledge is costly, the individual makes little investment in knowledge about the political level of (expected) lower relevance. Instead, the

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multi–level structure enables her to resort to knowledge about the level of higher relevance and to employ such knowledge in the context of the election of lower relevance. But differences in electoral procedures cause this resort to fail and reduce the individual understanding of the less relevant electoral event. As a consequence of this lower understanding, the individual is less likely to cast a ballot in that election, resulting in systematically lower participation, compared to the election of higher relevance.

1.1 Electoral participation in multi–level political systems

Multi–level political systems distribute political power across different political spheres – the national level, the communal level, or the supranational level of the European Union (EU) (Milbrath and Goel 1977; Reif and Schmitt 1980; Reif 1984; Detterbeck and Renzsch 2003; Schmitt 2005). Each of these levels has its own political institutions and its own elections. The crucial aspect of these different types of elections is that the parties contesting them as well as the eligible voters are (more or less) the same. For example, those eligible to vote in their national parliamentary elections in the EU member states form the electorate for the European Parliament (EP).

The so–called second–order election theory relates to the hierarchical relationship of elections in a multi–level political system. The theory distinguishes between first–order elections, such as the one for the national parliament, and second–order elections, for example for the EP. It seeks to explain systematically lower electoral participation in second–order elections, compared to their first–order counterparts. The theory predicates this lower participation in the second–order election on the fact that second–order politics is of lower salience for the overall political system than first–order politics. Because of this lower salience, citizens are less likely to cast a ballot for the second–order institution, causing systematically lower electoral participation (Reif and Schmitt 1980; Reif 1984; Marsh 1998; Schmitt 2005; Mattila and Raunio 2006).

In addition, the second–order election theory assumes that differences in electoral procedures between first– and second–order elections decrease electoral participation. As Karlheinz Reif and Hermann Schmitt (1980) argue, such differences reduce an individual's understanding of the second–order electoral event. Because of this lower understanding, the individual is less likely to cast a ballot for the second–order institution, decreasing electoral participation. Unlike an individual's expectation of the lower salience of second–order politics, such differences in electoral procedures are institutional barriers. It is the institutional setting of the electoral and party systems that causes differences in electoral procedures, discouraging some of the eligible

voters from participating in the second–order election. As a consequence, such differences in electoral procedures reduce the legitimization of the second–order institution as well as individual inclusion in second–order politics and thus in the overall political system.

1.2   The electoral differences approach

The second–order assumption on differences in electoral procedures defines the starting–point of my research. While the second–order election theory has been extended and enhanced in various ways, there has been little investigation into the assumption of distinct electoral procedures. I set out to provide a first insight into such differences, with this basic research expectation:

Differences in electoral procedures reduce the individual understanding of the second–

order level and thus decrease participation in the second–order election.

In order to test this expectation, I develop a first concept of differences in electoral procedures between first– and second–order elections, here termed for brevity *electoral differences*.

Such electoral differences occur, for example, between the national and EP elections. According to the second–order election theory, the individual is less familiar with the electoral procedures of the EP election, compared to those of her national parliamentary one. As a consequence, she is less able to follow the electoral event, for example in terms of the election campaign or how the electoral result is decided. Because of this lower understanding, the EP election becomes an "artificial" event, decreasing the likelihood that an individual will vote (Reif and Schmitt 1980: 13).

In pursuit of this idea, I examine the effects of four electoral differences on individual participation in the second–order election, comparing the 2009 EP election with the previous national parliamentary elections in the 27 EU member states that participated in the 2009 EP election. Two of these differences relate to the formal rules of the elections: the ballot formulas employed and the district magnitudes of the national and EP elections. The other two differences lie in the vote options among which the voter can choose at the poll, in terms of the parties' chances of entering parliaments and of the ideological diversity of the actors contesting the elections.

My initial assumption is that electoral differences relate to the individual understanding of the EP election. Assuming that this understanding mainly depends on an individual's political knowledge, I expect electoral differences to reduce political knowledge about the EU. In comparison to knowledge about an individual's domestic political system, knowledge about the

EU is of lower relevance. Because of the EU's lower salience, individual knowledge about the EU is lower, too. However, the multi–level political structure – domestic and EU – enables the individual to resort to political knowledge acquired on the domestic political level and use it as a proxy for the EU. But electoral differences cause this stratagem to fail, reducing understanding of the EU and the EP election. As a consequence, the individual is less likely to vote, causing systematically lower participation in the EP election than in the national parliamentary election.

1.3   Why examine electoral differences?

Investigating the effects of electoral differences is useful for various reasons. Political research has improved the second–order election theory in different ways, for example by taking electoral particulars, such as compulsory voting or a country's democratic history, into account. However, the second–order assumption on differences in the electoral procedures has been neglected. This study thus seeks to fill a significant gap in the second–order election theory. My aim is to provide a first insight into the effects of electoral differences on political behaviour. Employing an individual–level approach, I enhance the second–order election theory and our understanding of individual perception of the second–order level as well as of individual participation in second–order elections.

Furthermore, my concept of electoral differences develops our understanding of the effects of institutional settings of the political system. I investigate the influences of such settings on individual political knowledge and individual electoral participation. In this context, political research mainly focuses on cross–national comparisons, being faced with a number of different influences, for example in regard to a country's (democratic) history or its cleavage structure (Almond 1956; Lijphart 1999; Farrell 2001; Norris 2007; Klingemann 2009). These affect the institutional settings and thus cross–national comparisons. In contrast, my approach involves a cross–level comparison of elections at different political levels within the same political system. Of course, this cross–level approach is not risk–free in regard to such intervening effects. However, observing the electoral behaviour of the same individual on different political levels provides an alternative perspective for the comparison of political systems and their various political settings.

Finally, I turn to individual political behaviour in the EU. Examining individual perception of the EU and participation in the EP election, I touch on a core idea of the EU: European integration. The process of harmonizing economic and political structures between EU member states countervails the democratic prerequisite of maximizing electoral participation in so far as it

brings about electoral differences. It systematically excludes a certain portion of EU citizens from participating in EU politics, undermining the legitimization of the EP and thus of the EU. In short, this study investigates the EU's institutional settings and their effects on individual inclusion in the European Union.

1.4   Plan of the book

To demonstrate the expectation that electoral differences reduce the individual understanding of the electoral event and thus decrease participation in the EP election, I examine an individual's likelihood of voting in the 2009 EP election. Chapter 2 introduces my concept of electoral differences, relating such differences to lower participation in the EP election. Taking into account that the decision to participate in an election is an individual one, Chapters 3 to 5 take an individual–level approach, exploring individual political knowledge and how electoral differences reduce the individual understanding of the EU. As a consequence of this lower understanding, an individual's likelihood of casting a ballot for the EP is systematically lower, decreasing electoral participation in the EP election, compared to the previous national parliamentary election.

In more detail, then, Chapter 2 introduces my research aim. Taking as my starting–point lower electoral participation in the EP than in the national parliamentary election, I briefly introduce the second–order election theory and its expectation that the EU's lower salience decreases votes cast in the EP election. Moreover, this theory assumes that distinct electoral procedures decrease participation in the EP election. On the basis of this assumption, I examine four major electoral differences in the formal rules and in the vote options of both elections, expressing four country–level hypotheses that guide my research approach throughout this book.

To develop an individual–level approach to electoral differences, Chapter 3 investigates the individual understanding of the EU and the EP election. Assuming that this understanding is mainly a matter of political knowledge, I examine such knowledge and its various components at the individual level. In this context, my expectation is that political knowledge about the EU is secondary to knowledge about the domestic level, because of the EU's lower salience. As a consequence, the individual invests little in gaining knowledge about the EU. Instead, the multi–level political system enables her to resort to political knowledge acquired from the domestic level and use it as a proxy for the EU. That is, the individual employs a domestic perspective to better understand the EU, its political system and the idea of European integration.

Taking this domestic perspective, Chapter 4 examines the effect of electoral differences on individual knowledge about the EU. I expect that such differences decrease knowledge about the

EU. Electoral differences mean that an individual's domestic perspective fails to explain the EU and the EP election. They reduce the individual's ability to resort to political knowledge acquired on the domestic level. Depending on the particular political level, such knowledge is inadequate to increase knowledge about the EU. As a consequence of knowing less, the individual understanding of the EU is lower, too. In short, Chapters 3 and 4 investigate the first part of my research expectation: because of electoral differences, individual political knowledge about the EU is systematically lower, reducing the individual understanding of the EU and the EP election.

Having established this lower understanding, Chapter 5 focuses how electoral differences affect the likelihood of an individual casting a ballot for the EP. According to my expectation, lower electoral participation is caused by the lower individual understanding. On the one hand, this implies that electoral differences increase the relevance of political knowledge, enabling the individual to understand the differences and their consequences for the EU and the EP election. On the other hand, I expect that such differences also cause political knowledge to exert a demobilizing effect. Greater knowledge enables the individual to understand the consequences of electoral differences, but if these consequences are not in line with the individual's political preferences, this reduces electoral participation.

In the final Chapter 6, I summarize my major findings, which demonstrate my basic research expectation: electoral differences reduce the individual understanding of EU and EP elections, and hence an individual is less likely to vote. From this summary, I generalize my findings in regard to the hierarchical structure of the first– and the second–order level, developing a first model on differences in the electoral procedures in second–order elections. Finally, Chapter 6 identifies further avenues of research into electoral differences and discusses the practical consequences of my findings for elections to the EP.

2. Electoral participation and the concept of electoral differences

My basic research expectation is that electoral differences reduce the individual understanding of the EU and thus decrease participation in European elections. To investigate this expectation, Chapter 2 introduces my research concept, based on an assumption of the second–order election theory about the electoral procedures for national parliamentary and EP elections. I establish a concept of electoral differences, examining four such differences in the formal rules (in the ballot formulas and district magnitudes) and in the vote options from which the voter can choose in both elections (in terms of their number and their ideological diversity). To provide a first insight, this chapter examines aggregated electoral participation by the four electoral differences in cross–national comparisons of the EU member states.

This book investigates differences in the electoral procedures between the second–order European Parliament (EP) election and the first–order national parliamentary election. According to my original research expectation, such differences reduce the individual understanding of the EU and thus participation in the EP election. I assume that this lower understanding derives from an individual's lacking the political knowledge which would enable her to become aware of such differences and to overcome their consequences for the electoral event, the elected institution and the political system. Individual knowledge about the EU is reduced by differences in the electoral procedures, due to the fact that most of this knowledge is drawn from the domestic level, decreasing understanding of the EP election. As a consequence, the individual is less likely to vote, resulting in systematically lower participation in the EP election than in the national parliamentary one.

The first section of this chapter examines the research context: the comparison of the 2009 EP election with the previous elections to the national parliaments in the EU member states. The object of my research interest is lower electoral participation for the EP than for the national parliament. In this context, I briefly discuss the second–order election theory, providing a primary explanation for lower participation in the EP election. Moreover, the second–order election theory assumes that differences in the electoral procedures reduce electoral participation. In Section 2.2, I then develop a concept of electoral differences, distinguishing between differences in the formal rules of the elections, such as the ballot formulas employed or the district magnitudes, and differences in the vote options from which the voter chooses in both elections,

for example in regard to their number or their ideological diversity. I express four country–level hypotheses to guide my research, and test them in initial cross–national comparisons of relative turnouts.

2.1 Lower participation in European elections

I start with some basic definitions. This section examines lower participation in the 2009 EP election (*European election*) than in the previous national parliamentary election (*national election*). It defines my research population: citizens who participate in the national election. Finally, the section briefly discusses the second–order election theory, which relates to multi–level political systems and the hierarchical structure of their elections. The theory depends on the assumption that differences in electoral procedures decrease electoral participation in the second–order election, initiating my research approach, which I develop subsequently.

2.1.1 Participation in the national and the European election

It is a well–examined phenomenon that electoral participation is lower in the European than in the national election in all EU member states, ever since the first election for the EP in 1979 (Reif and Schmitt 1980; Reif 1984; Schmitt 2005). Figure 2.1.1-1 illustrates the turnouts – that is, aggregated electoral participation – in the national elections of the 27 EU member states that took part in the 2009 European election, defining my research population at the country level.[1] As indicated by the dotted vertical line on the right side of the figure, the average turnout in the national elections is about 70.1%. It ranges between Malta (93.3%), Belgium (91.1%) or Luxembourg (90.9%) and Romania (39.2%). In comparison, turnouts in the 2009 European election are strikingly lower in almost all EU member states, as the second bars in Figure 2.1.1-1 make clear. On average, not even half of the electorate cast a ballot for the EP in 2009 (46.2%), ranging between Belgium (90.9%) or Luxembourg (90.8%)[2] and Slovakia (19.6%).

Comparing the turnouts in the national and European elections is to compare two elections of the same multi–level political system. That is, the national and European elections are two

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1 In fact, the figure covers the 26 countries that participated, plus Great Britain excluding Northern Ireland. The exclusion of Northern Ireland is due to the individual–level data I employ in Chapters 3 to 5, which do not provide information on Northern Irish residents. Appendix A.1 provides an overview of the data employed.

2 It is important to note that in Belgium and Luxembourg voting is compulsory. Moreover, the national and European elections are held on the same day, at least in Luxembourg. Both electoral particulars increase participation in the national as well as in the European election.

Figure 2.1.1-1: Turnouts in the national and the European election
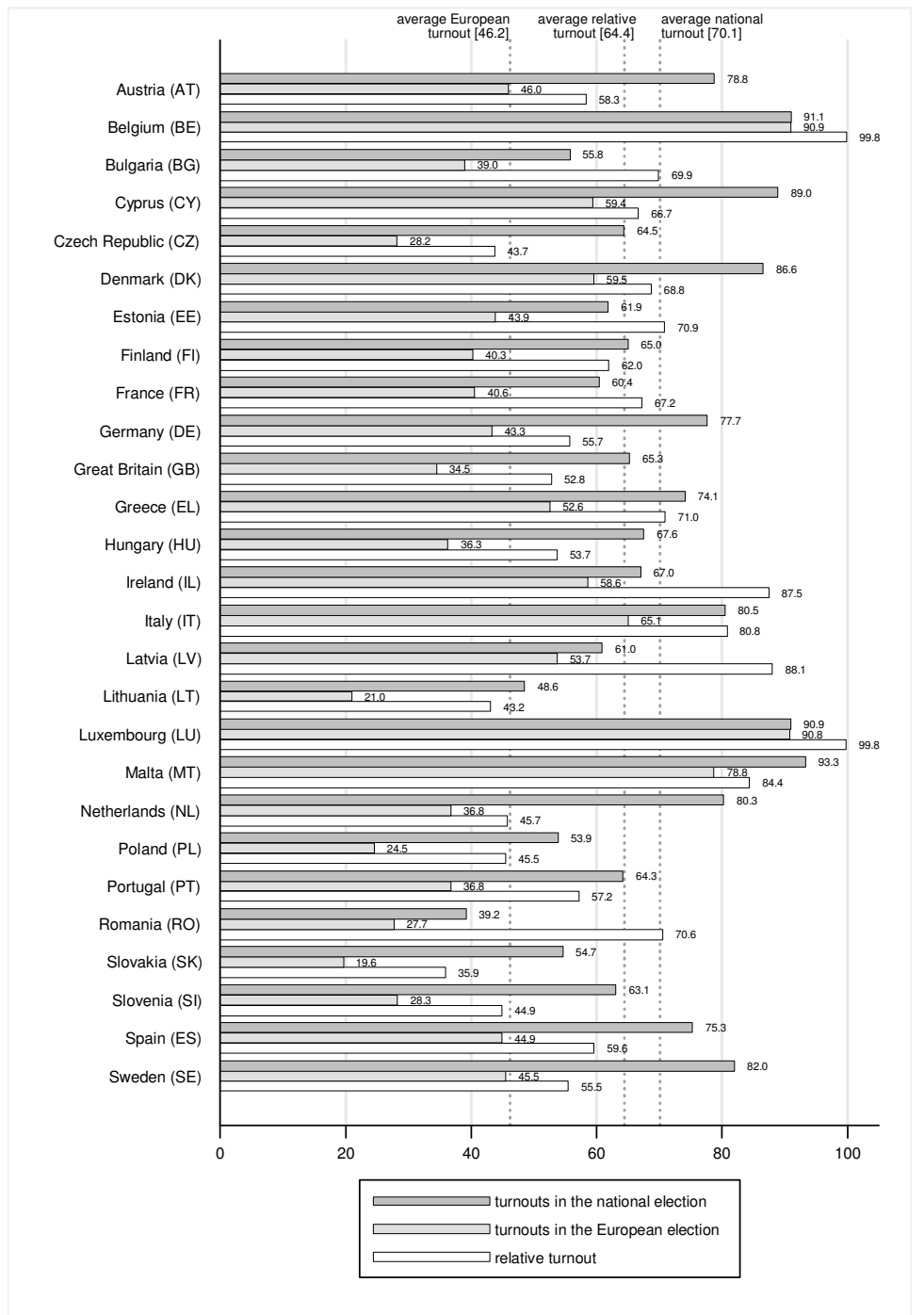
elections at different political levels within the same political system (Milbrath and Goel 1977; Reif and Schmitt 1980; Reif 1984; Detterbeck and Renzsch 2003; Schmitt 2005). While the national election relates to the domestic level and domestic politics, the European election relates to the European level and EU politics.

This multi–level structure has two primary consequences. First, the contesting actors – parties and their candidates – as well as the eligible voters are (almost) the same in both elections (Reif and Schmitt 1980; Reif 1984; Detterbeck and Renzsch 2003).[3] Second, the actors as well as the voters have expectations about which of the two levels is of higher relevance for the overall political system. Participating in the election of lower relevance, i.e. the European election, actors and voters take into account preferences related to the political level of higher relevance. Or, the eligible voters are less likely to vote in the less relevant European election, causing systematically lower electoral participation, compared to the more relevant national election (Milbrath and Goel 1977; Reif and Schmitt 1980; Reif 1984; Thorlakson 2005; Mattila and Raunio 2006; Hobolt and Wittrock 2011; Lefkofridi and Katsanidou 2014).

Each eligible voter can either participate or abstain in the national as well as in the European election. Figure 2.1.1-2 illustrates these four options of participation, displaying the national election in the columns and the European election in the rows. Its upper left cell covers eligible voters who participate in both elections, termed *dual voter*. The lower left cell contains those eligible voters who cast a ballot in the national election but abstain in the European election, called *exclusive national voter*. Both cells of the first column commonly cover national voters. That is, eligible voters who participate in the national election. The second column of the figure shows those who do not vote in the national election. Those of them who participate in the European election are termed *exclusive European voter*; those who abstain *dual non–voter*. My current population of interest is the national voter, termed *voter* in the following, displayed in the first column of Figure 2.1.1-2. The sum of these voters in the 27 EU member states defines my research population on the individual level.[4]

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3 Of course, the contesting actors as well as the eligible voters are not exactly the same in the national and European elections. There are some parties contesting only one of the elections. Likewise, the sum of national eligible voters does not perfectly fit the electorate in the European election. For example, mortality and new voters reaching the legal voting age cause natural fluctuations. Moreover, foreign citizens of other EU member states are allowed to vote for the EP, but not necessarily for the national parliament.

4 In the context of the research population, it is important to be aware of the fact that "because everyone does not have the same likelihood of voting, voters as a whole differ from the entire population of adult citizens" (Wolfinger and Rosenstone 1980: 104). In other words, excluding the *national non-voter* from this study implies that my research population is not the same as the total number of eligible voters in the EU. Instead, it only reflects the participatory behaviour of national voters.

Figure 2.1.1-2: Individual participation in the national and the European election

		national election			
		yes	no		
European election	yes	dual voter	exclusive European voter	European voter	
	no	exclusive national voter	dual non–voter	European non–voter	
		national voter	national non–voter		

According to the definition of my research population, the ratio of turnouts in the European and national elections reflects the proportion of voters who cast a ballot for the EP.[5] Figure 2.1.1-1 displays this ratio of turnouts, called *relative turnout*, in its third bars. A higher relative turnout implies that a higher proportion of voters participate in the European election. On average, the relative turnout is about 64.4%, indicating that overall about two thirds of the voters cast a ballot for the EP in 2009. It is highest in Belgium and Luxembourg (99.8%), where almost all voters participate in the European election, in Latvia (88.1%), Ireland (87.5%) and Malta (84.4%). In contrast, in several EU member states fewer than half the voters also cast a ballot for the EP – Slovakia (35.9%), Lithuania (43.2%), the Czech Republic (43.7%), Poland (45.5%) and the Netherlands (45.7%).

2.1.2 The second–order election theory

As is obvious from Figure 2.1.1-1, the relative turnout is lower than 1 in all EU member states, reflecting the lower participation in the European than in the national election. A primary explanation for this lower electoral participation is provided by the so–called second–order election theory. It assumes that the European election is of second–order nature in comparison to the first–order national election. In other words, the European election is an election of lower relevance in a multi–level political system (Reif and Schmitt 1980; Reif 1984; Marsh 1998; Hix 2005; Schmitt 2005; Mattila and Raunio 2006; Hobolt et al. 2008). The second–order nature of the European election has two major consequences. First, the voter takes first–order preferences into account when participating in the European election. She tends to vote for smaller opposition parties – following her heart, venturing to "tentatively try a new party" (Reif 1984: 246), or punishing government parties for politics she dislikes on the first–order level (Reif and

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5   Of course, the ratio of turnouts does not exactly display the proportion of voters who also participate in the European election. Some voters drop out, but are replaced by other citizens who do not vote in the national election, the *exclusive European voter* in Figure 2.1.1-2.

Schmitt 1980; Marsh 1998; Schmitt 2005; Mattila and Raunio 2006; Hobolt and Wittrock 2011). Second, the voter abstains from the poll, reducing participation in the European election compared to the national one (Milbrath and Goel 1977; Reif and Schmitt 1980; Reif 1984; Schmitt 2005).

According to the second–order election theory, "the most important aspect … is that there is less at stake" (Reif and Schmitt 1980: 9; see also Reif 1984) in the European election, implying that EU politics is of lower salience for the overall political system than domestic politics. Moreover, the political role of the EP in the EU is inferior compared to, for example, the EC Council (Reif and Schmitt 1980; Reif 1984; Lodge 1994; Hix 2005; Flickinger and Studlar 2007).[6] In short, the European election is less relevant. This decreases the benefits of voting, for instance in terms of affecting the electoral outcome. Taking into account that electoral participation is costly – in terms of spending the time to become informed about the election or to vote – the lower benefits of voting decrease the voter's likelihood of casting a ballot for the EP, causing systematically lower participation in the European than in the national election (Reif and Schmitt 1980; Reif 1984; Anderson and Kaltenthaler 1996; Schmitt 2005; Hobolt and Wittrock 2011).[7]

The EU's lower salience aside, it is in any case dominated by domestic actors, in terms of parties, politicians and political institutions. Domestic parties form the political factions in the EP. Likewise, the national governments form the EC Council and nominate the EU Commissioners. The voter decides on such domestic actors at the domestic level, for example in terms of the national government. This further decreases the relevance of the European election and reduces the benefits of voting. As a consequence, the voter's likelihood of casting a ballot for the EP is systematically lower, too (Reif and Schmitt 1980; Reif 1984; Lodge 1994; Anderson 1998; Marsh 1998; Karp et al. 2003; Hix 2005; Mattila and Raunio 2006; Flickinger and Studlar 2007; Schmitt and Thomasson 2009; Hobolt and Wittrock 2011).

Finally, domestic politics has a longer tradition than EU politics in all EU member states. While all of the countries had a democratic domestic political system and democratic national elections before joining the EU, the EU is still a relatively new system for most of its member states and

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6   In fact, "the penetration of EU law into national legal systems has developed both quantitatively and qualitatively" (Hix 2005: 128). That is, the relevance of EU politics as well as the role of the EP in the EU has increased steadily over the years (Anderson and Kaltenthaler 1996; Schmitt 2005; Hobolt and Wittrock 2011).
7   To explain lower participation in the European election, political research has developed the second–order election theory in various ways, for example by taking electoral particularities into account, such as compulsory voting (e.g. in Belgium and Luxembourg) and simultaneous elections (e.g. in Luxembourg) (Reif and Schmitt 1980; Schmitt 2005). Likewise, the second–order election theory takes into account the length of a country's membership of the EU as well as differences between the former communist countries of Eastern Europe and the Western European countries (Hix 2005; Schmitt 2005; Mattila and Raunio 2006; Schmitt and Thomasson 2009), and other factors besides.

thus for most of the voters (Reif and Schmitt 1980; Anderson 1998; Kritzinger 2003; Hix 2005; Schmitt 2005; Schmitt and Thomasson 2009). As a consequence of this longer domestic tradition, the voter is less familiar with the EU than with domestic politics, decreasing participation in the European election (Reif and Schmitt 1980).

The second–order election theory is based on an assumption about the electoral procedures employed in the national and European elections. Karlheinz Reif and Hermann Schmitt (1980: 13) argue that "the more distinct the electoral procedures were, as compared to the national tradition, the lower the turnout" in the European election. In other words, due to differences in electoral procedures, the voter is less likely to cast a ballot for the EP, causing systematically lower participation in the European election. This second–order assumption about differences in electoral procedures was largely ignored in the succeeding literature. However, such differences in electoral procedures, termed *electoral differences* in the following, mark the starting–point of my study.

To recap: my study investigates the lower participation of voters in the European election. According to the second–order election theory, the European election is of lower relevance than the national one, because of the EU's lower salience and the dominance of domestic actors in EU institutions. In addition, domestic politics has a longer tradition than EU politics, because of which the voter is less familiar with the EU. In this context, the second–order election theory assumes that distinct electoral procedures cause lower participation in the European election. Due to this assumption, my basic research expectation is that such electoral differences reduce the voter's understanding of the EU and the European election, systematically reducing electoral participation for the EP.

2.2   The concept of electoral differences

My research approach on electoral differences is developed from this research context. The current section explores the concept of electoral differences, providing an insight into what such differences are and how they relate to electoral participation. I discuss the electoral procedures of both national and European elections and how they differ from each other. Therefore, I distinguish between differences in the formal rules of the elections as well as between the vote options in both types of elections. I express four hypotheses about the effects of electoral differences on electoral participation and examine these hypotheses initially in descriptive cross–national comparisons of the relative turnout.

2.2.1 Electoral differences in the formal rules

Electoral differences are distinctions in electoral procedures between the national and the European election. In general, electoral procedures are the institutional settings which determine how the voter decides on the representatives as well as who these representatives are (Lipset and Rokkan 1967; Lijphart 1985, 1999; Cox 1997; Ladner and Milner 1999; Farrell 2001; Perea 2002; Norris 2007). On the one hand, electoral procedures cover the official rules and regulations of the electoral system, here called *formal rules*. Such formal rules define, for example, how the voter expresses her vote at the poll or how this vote counts in the vote–seat transfer (discussed in greater detail below). On the other hand, electoral procedures also refer to the actors contesting the election, called *vote options*. Such vote options determine the electoral alternatives from which the voter can choose at the poll to represent her political preferences in the parliament and thus in politics (discussed in Section 2.2.2 below).[8]

Electoral differences in the formal rules cover distinctions between the electoral systems of the national and European elections, such as the ballot formula employed, its structure, or the number of seats contested in an electoral district (Lipset and Rokkan 1967; Lijphart 1985, 1999; Cox 1997; Farrell 2001; Norris 2007). To provide a first insight into electoral differences in the formal rules, I focus on two primary characteristics of the electoral system: "the way in which electoral districts are set up and the manner in which votes are cast and counted" (Ladner and Milner 1999: 239; see also Lijphart 1999, Dahl 2000; Norris 2007): that is, the district magnitude and the ballot formula.

As an example of these formal rules and how they differ between the national and European elections, one might think about both types of elections as they are held in Great Britain. The British national election for the House of Commons is based on majoritarian rules. Its ballot formula provides one vote for each voter, expressed in favour of a candidate in a single–member district, which has one contested parliamentary seat. The candidate who receives most votes in this district enters parliament directly by a simple majority. All other candidates in the electoral district fail to gain a seat.

By contrast, the British European election is based on proportional voting rules. The proportional formula offers one vote to each voter, too. But unlike the majoritarian formula, it uses a party–list vote in a multi–member, nationwide district. That is, all of the 72 British seats in the EP are

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8   Of course, there are further institutional settings that affect electoral participation, for example in terms of the mass media and public discussion of EU politics. But here such settings are beyond my scope.

contested in one electoral district.[9] These seats are allocated proportionally, according to the parties' vote–share in the nationwide district.

The British example illustrates the two primary characteristics of the electoral system and how these two settings differ between the national and European elections. The ballot formula employed defines how the voter expresses her vote at the poll: voting for an individual candidate in the national election and for a party list in the European election. It affects how votes translate into parliamentary seats. As discussed in the example, the national system assigns seats by a simple majority in a single–member district, while the European formula operates a proportional allocation system, based on the parties' vote–share (Lipset and Rokkan 1967; Lijphart 1985, 1999; Blais and Carty 1990; Cox 1997; Dahl 2000; Farrell 2001; Norris 2007). This replacement of the national majoritarian ballot formula by a proportional one for the EP constitutes my first electoral difference in the formal rules, termed *distinct formula* in the following.

The second characteristic is the district magnitude, which is the number of contested seats in the voter's electoral district. It has a major impact on the election campaign and affects the electoral outcome. In a single–member district, such as in the British national election, only the candidate with the highest vote–share gains a parliamentary seat. In contrast, all of the British seats in the EP election are contested in a single nationwide multi–member district. The greater district magnitude in the British European election decreases the minimum vote–share necessary to gain a parliamentary seat. It increases smaller parties' chances of entering the EP and raises the number of contesting actors in the electoral district (Lijphart 1985, 1999; Shugart 1985; Carey and Shugart 1995; Cox 1997; Farrell 2001; Norris 2001, 2007; Blais and Lago 2009; Farrell and Scully 2010). Such an increase in the district magnitude in the European election constitutes my second electoral difference in the formal rules, called *higher magnitude*.[10]

a) A distinct formula

To examine the first electoral difference in the formal rules in greater detail, I begin by developing a straightforward classification of ballot formulas in the national elections of the EU member states. Contrasting these formulas to that of the European election defines the first

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9   In the 2009 European election, the United Kingdom had in total 75 seats in the EP. Of these 75 seats, 72 were contested in Great Britain; the remaining three seats, in Northern Ireland, are excluded from this study.

10 In addition to the ballot formula and the district magnitude, there are numerous other characteristics of the formal rules that might differ between the national and European elections, causing electoral differences. For example, the ballot structure may offer the voter "a simple either/or choice" (Farrell 2001:6) or enable her to express preferences for one or more of the contesting actors (Lijphart 1985; Cox 1997; Farrell 2001; Norris 2007). However, I focus on the ballot formula and the district magnitude, as I expect that these two characteristics are of core relevance for the electoral event and thus for the voter's participation (Lipset and Rokkan 1967; Ladner and Milner 1999; Lijphart 1999).

electoral difference: a distinct formula. Having established this definition, I discuss the effects of a distinct formula on the electoral event and thus on participation in the European election, expressing my first country–level hypothesis. Finally, I briefly examine the relative turnout in the context of a distinct formula, employing a descriptive cross–national comparison.

The ballot formula determines "how voters cast their votes" (Farrell 2001: 6) at the poll. It regulates the number of votes each voter can express, whether the voter decides on candidates or parties, and so on (Blais and Carty 1990; Lijphart 1999; Dahl 2000; Farrell 2001; Norris 2007). The ballot formula is highly visible to the voter at the poll. Moreover, it has a major impact on the electoral event, affecting the election campaign as well as the voter's representation in parliament (Campbell et al. 1964; Dalton 1985; Carey and Shugart 1995; Crepaz 1996; Cox 1997; Hennl and Kaiser 2008; Spies and Kaiser 2012).

In the national elections of the EU member states the ballot formulas are manifold. In a simplified classification, four different types can be distinguished (Blais and Carey 1990; Cox 1997; Lijphart 1999; Dahl 2000; Farrell 2001; Norris 2007), represented in the upper part of Figure 2.2.1a. Its first column shows countries that employ a proportional formula, utilizing a party–list vote in a multi–member district. The parliamentary seats are allocated proportionally to the parties' vote–share in the district. This improves smaller parties' chances of gaining a parliamentary seat and thus increases the representation of minorities (Blais and Carty 1990; Cox 1997; Lijphart 1999; Farrell 2001; Norris 2007). But, because the nomination of candidates mainly depends on the parties, the elected incumbents are less responsible for their political behaviour and less accountable to the voter at the poll. It produces a more indirect representation of the voter in the national parliament and thus in domestic politics (Dalton 1985; Crepaz 1996; Cox 1997; Farrell 2001; Hennl and Kaiser 2010; Spies and Kaiser 2012). As is obvious from Figure 2.2.1a, proportional ballot formulas are by far the most common in the national elections, employed in 19 out of the 27 EU member states.[11]

The second column of Figure 2.2.1a refers to a single transferable vote formula. The voter decides on candidates in a multi–member district, rank–ordering these candidates. To enter parliament, a candidate has to reach a certain threshold: that is, achieve a necessary minimum vote–share. If not all seats are filled after the first vote–count, the candidate who received least votes is taken out of the race. The votes for this candidate are reallocated among the other

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11 It is important to note that the precise proportional formula differs between the countries, e.g. in terms of providing the voter with an option to express a preference for one or more of the candidates within the party lists. Moreover, some proportional systems, e.g. in Luxembourg, enable the voter to register as many votes as there are contested seats and thus to vote across party lists (Gallaghiour 1991; Carey and Shugart 1995; Cox 1997; Farrell 2001; Farrell and Scully 2010).

contestants, according to the voter's rank–order for a second count, and so on. Consequently, the realization of the electoral outcome in a single transferable vote system is quite complex. But it creates a direct representation of the voter, as the incumbent is directly elected, as well as quite a proportional electoral outcome (Cox 1997; Lijphart 1999; Farrell 2001; Norris 2007). In the EU, only Ireland and Malta employ such a single transferable vote formula in their national elections.[12]

Figure 2.2.1a: Relative turnout by the different ballot formulas in the national and the European election (cH-1)
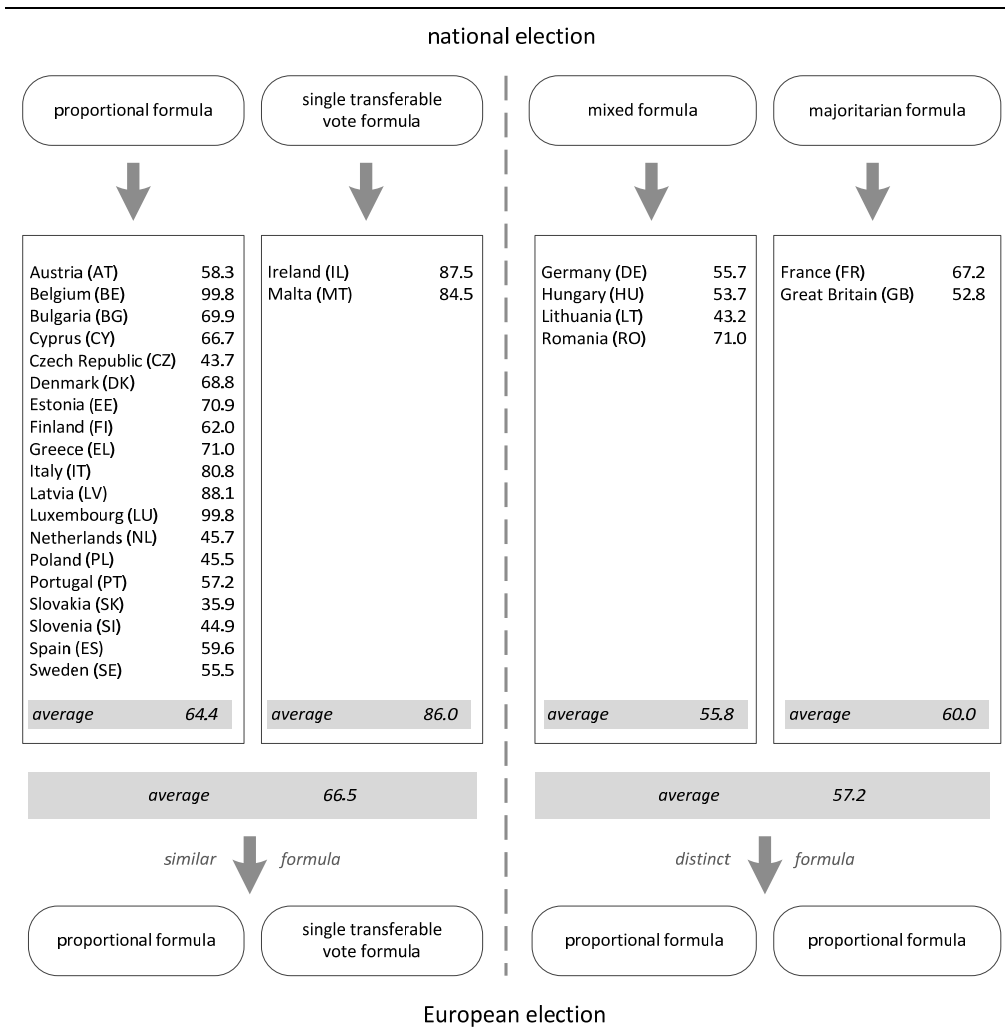
The third column of Figure 2.2.1a covers mixed ballot formulas, combining proportional and majoritarian voting rules. In general, a mixed formula provides two votes to each voter. One of

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12 The single transferable vote system is also employed in Northern Ireland, which is beyond the scope of my study, as discussed.

these two votes is for a party in a multi–member district, while the other is a candidate–vote in a single–member district. Thus, a mixed ballot formula tries to take advantage of the proportionality of the electoral outcome, under a proportional formula, and the directness of the voter's representation, under a majoritarian formula (Lijphart 1999; Farrell 2001; Karp 2006; Norris 2007). Previous to the 2009 European election, Germany, Hungary, Lithuania and Romania[13] employed such a mixed ballot formula in their national elections.

The fourth column of Figure 2.2.1a refers to majoritarian ballot formulas, as introduced in the British example. The voter decides on candidates in a single–member district and the candidate with the highest vote–share in the electoral district gains the parliamentary seat directly. Because the voter chooses the candidate, the incumbent is highly accountable, producing quite direct representation of the voter in parliament and thus in politics (Dalton 1985; Blais and Carey 1990; Crepaz 1996; Cox 1997; Farrell and Scully 2010; Hennl and Kaiser 2010; Spies and Kaiser 2012). However, the majoritarian rules produce quite a disproportional electoral outcome, favouring bigger parties over smaller ones. Consequently, the voter has a high risk of wasting her vote, casting a ballot for a candidate with no chance of entering parliament (Lipset 1960; Lijphart 1985, 1999; Cox 1997; Dahl 2000; Farrell 2001; Norris 2007). As shown in Figure 2.2.1a, France[14] and Great Britain are the only two EU member states that employ a majoritarian formula in their national elections.

In contrast to these ballot formulas in the national elections, the European election is based on either proportional or single transferable vote formulas. In 2002 the EC Council decided that "in each Member State, members of the European Parliament shall be elected on the basis of proportional representation, using the list system or the single transferable vote" (EC Council 2002: 1). This decision entails that countries using majoritarian or mixed formulas in their national elections have to replace these formulas by a different one in the European election. As a consequence, France, Great Britain, Germany, Hungary, Lithuania and Romania all switch to a proportional formula for the EP, shown in the lower part of Figure 2.2.1a. This replacement of a

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13 In regard to the postulated two-vote mixed system, it is important to note that the Romanian ballot formula offers a single vote, exclusively. The voter casts her ballot for a candidate in a single-member district, where the candidate needs an absolute majority to enter parliament. If no candidate manages to do so, the unfilled parliamentary seats are allocated by proportionality, according to the parties' overall vote-share.

14 Unlike Great Britain, the French majoritarian system is a so-called two-round system. To gain the parliamentary seat, a candidate needs an absolute majority in the first round. If none of the contesting candidates receives such an absolute majority, a second round of voting is initiated (Lijphart 1999; Farrell 2001; Norris 2007).

national majoritarian or mixed formula by a proportional one for the EP constitutes my first electoral difference in the formal rules, a *distinct formula*.[15]

A distinct formula has various consequences, decreasing the voter's familiarity with the electoral event and thus her understanding of the European election. Replacing the national ballot formula entails losing a candidate–vote and gaining a party–list vote, which increases the relevance of parties in the European election. Assuming that the voter is more familiar with the national candidate–centred formula, the higher relevance of parties decreases her understanding of the European election (Gordon and Segura 1997; Farrell 2001; Norris 2001, 2007; Farrell and Scully 2010).[16]

Moreover, a distinct formula results in a more indirect representation of the voter in the EP. The party–list vote means that the incumbents, mainly nominated by the parties, are indirectly elected and thus less accountable for their political behaviour. Consequently, they are less closely connected to their electoral district, in comparison to the directly elected incumbents of the national parliament. This decreases the voter's familiarity with the actors contesting the election and reduces her understanding of the European election (Campbell et al. 1964; Carey and Shugart 1995; Crepaz 1996; Dahl 2000; Farrell 2001; Hennl and Kaiser 2008; Curtice and Shively 2009; Holmberg 2009; Spies and Kaiser 2012).

Because of the voter's lower understanding, I expect a distinct formula to decrease participation in the European election. Cross–national research suggests that proportional ballot formulas tend to have somewhat higher electoral participation than, for example, majoritarian systems. This higher participation is mainly explained by the more proportional electoral outcome and the better prospects of minority parties entering parliament (Blais and Carty 1990; Ladner and Milner 1999; Lijphart 1999; Perea 2002; Norris 2007; Karp and Banducci 2008; Banducci and Karp 2009; Nevitte et al. 2009).

Unlike cross–national research, my study focuses on a cross–level comparison of two elections in a multi–level political system. In this context, a distinct formula indicates the greater relevance of

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15 It is important to note that national electoral systems are not static, but change over time. For example, Romania employed proportional voting rules in national elections from 1992 onwards, changing to a mixed system in 2008. Consequently, Romanian voters are well trained in the proportional formula, as employed in the European election. However, as this study takes as its basis electoral procedures in the 2009 European election and those employed in the previous national election, Romania belongs to the group of countries with a distinct formula.

16 Replacing a majoritarian formula involves substituting a party-list vote for the candidate-vote, whereas replacing a mixed formula entails losing the candidate-vote, but keeping the party-list vote. However, taking into account that most voters in mixed national systems know little about the role and relevance of their party-list vote (Schmitt-Beck 1993; Karp 2006), the loss of the candidate-vote has similar consequences for voters from both majoritarian and mixed national systems (Lijphart 1999; Farrell 2001; Norris 2001, 2007).

parties than candidates and more indirect representation of the voter in the EP, opposing the traditions of the national election. It decreases the voter's familiarity with the contesting actors and reduces her understanding of the electoral event. Hence my first country–level hypothesis is:

A distinct formula decreases participation in the European election (cH-1).

Lower electoral participation implies that the relative turnout, examined above, is systematically lower in countries with a distinct formula than in countries operating an electoral formula similar in the national and European elections. The first two columns of Figure 2.2.1a display the relative turnouts in countries with a similar formula. This group of countries covers the whole range from the highest relative turnouts of Belgium or Luxembourg to Slovakia, with the lowest relative turnout of all EU member states. The right side of Figure 2.2.1a displays countries with a distinct formula. Of these six countries, Romania stands out with its high relative turnout (70.6%).[17] The bottom lines of Figure 2.2.1a list the average relative turnout, which is almost 10 percentage points lower for the countries with a distinct formula (57.2%) than for those with a similar formula (66.5%). This supports the expectation that relative turnout is lower in countries that replace their national formulas by a different one for the EP (cH-1). However, due to the wide range of relative turnouts in the group of countries with a similar formula, this finding should be handled with some care.

To briefly summarize the discussion of my first electoral difference, I expect that a distinct formula decreases electoral participation. Replacing the national majoritarian or mixed formula by a proportional one for the EP increases the relevance of parties in the European election and causes a more indirect representation of the voter in the EP. Such consequences of a distinct formula reduce the voter's understanding of the electoral event and thus decrease her likelihood of casting a ballot for the EP. A first descriptive comparison of the relative turnout by a distinct formula cautiously supports this expectation. On average, the relative turnout tends to be lower in countries with a distinct formula, compared to countries with a similar formula in the national and European elections.

b) A higher magnitude

The second characteristic in the formal rules is the district magnitude, defined by the number of contested seats in an electoral district. It ranges between single–member districts, having a magnitude of one, and multi–member districts, with magnitudes bigger than one, maximally contesting all parliamentary seats in one nationwide district. In the following, I examine

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17 The relatively high turnout ratio in Romania derives from quite a low turnout in its 2008 national election (39.2%), balanced by a turnout of about 27.7% in the 2009 European election.

differences in the district magnitudes of the national and European elections and introduce my second difference in the formal electoral rules: a higher magnitude. I then investigate the effects of a higher magnitude on electoral participation, expressing my second country–level hypothesis. As with my previous example of electoral differences, I test this hypothesis with a descriptive comparison of the relative turnout by a higher magnitude.

Compared to the ballot formula, the district magnitude is less visible to the voter in the election. The absolute number of contested seats in an electoral district is sometimes hard to discover, both in the election campaign and at the poll (Shugart 1985; Blais and Lago 2009). However, the district magnitude has several important consequences for the electoral event, because it is the place where "parties and candidates decide … how they distribute their resources, and voters make up their mind about how to vote" (Blais and Lago 2009: 95). It determines the election campaign and the electoral competition. Defining the number of contested seats, a higher magnitude decreases the minimum vote–share necessary to gain a seat in the district and thus increases the chance of smaller parties entering the parliament. Consequently, a higher district magnitude encourages more actors to contest the election (Shugart 1985; Blais and Carty 1990; Gallagher 1991; Ordeshook and Shvetsova 1994; Carey and Shugart 1995; Cox 1997; Lijphart 1999; Farrell 2001; Norris 2001, 2007; Farrell and Scully 2010).

In their national elections, most of the EU member states employ a proportional ballot formula, based on multi–member districts, as discussed. Similarly, both the single transferable vote formula and the party–list vote in the mixed formula employ a district magnitude bigger than one. However, the majoritarian formulas used in France and Great Britain, as well as the candidate–vote in the mixed system, are based on single–member districts.[18] On average, the district magnitude in the EU member states for national elections is about 20 seats.[19] The highest district magnitudes are in the Netherlands and Slovakia (both 150), because these two countries employ a single nationwide district in their national elections.

In comparison, the average district magnitude in the European election is about 17 seats and is thus somewhat lower than in the national election. In this context, two important features of European district magnitudes need to be borne in mind. First, due to the proportional or single transferable vote formulas, no country employs a single–member district in the European election. Second, the total number of contested seats in the EP is significantly lower than in the national parliaments of all EU member states. This necessitates a reorganization of electoral

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18 According to the single candidate-vote on the Romanian mixed formula, the average Romanian district magnitude equals 1, like in France and Great Britain.

19 Table A.1.4b in the Appendix displays the average district magnitudes in the national and European elections in each of the EU member states.

districts for the European election, for example into a single nationwide district, as in Great Britain or Spain.

Contrasting the average district magnitudes in the national and European elections establishes the second electoral difference in the formal rules. It is operationalized by the ratio of the average European district magnitude, divided by the average national district magnitude in each of the EU member states. Setting an equal magnitude in both elections to zero, the logarithm of the ratio defines my second electoral difference in the formal rules, *a higher magnitude*.[20] Equal district magnitudes occur in Malta, where an electoral district consists of five contested seats in both national and European elections. Of the remaining 26 EU member states, exactly half have a district magnitude lower than zero and half higher than zero.

According to cross–national research, electoral participation tends to be highest in smaller multi–member districts. On the one hand, the higher proportionality of the outcome, compared to single–member districts, increases the chance of smaller parties entering parliament. It enables greater representation of minorities and motivates the voter to cast a ballot in the election (Shugart 1985; Blais and Carty 1990; Gallagher 1991; Ordeshook and Shvetsova 1994; Carey and Shugart 1995; Lijphart 1999; Farrell 2001; Norris 2007). On the other hand, the voter is more familiar with the actors contesting in smaller than in bigger multi–member districts, because they are fewer, increasing electoral participation (Reif and Schmitt 1980; Shugart 1985; Carey and Shugart 1995; Norris 2001, 2007; Larcinese 2009; Farrell and Scully 2010).

Comparing the national and European elections, I expect a higher magnitude to have a negative effect on electoral participation. In countries that employ single–member districts in their national elections, the higher magnitude in the European election involves replacing the national ballot formula, as discussed. In countries that employ multi–member districts in both national and European elections, cross–national research suggests that a higher magnitude decreases the voter's familiarity with the contesting actors. In sum, the bigger European electoral district is "new and unfamiliar to voters … and therefore bear[s] little meaning for them" (Reif and Schmitt 1980: 13). As a consequence, the voter has a poorer understanding of the electoral event and is less likely to cast a ballot for the EP, as expected by my second country–level hypothesis:

A higher magnitude decreases participation in the European election (cH-2).

This second country–level hypothesis implies a lower relative turnout caused by a higher magnitude. Figure 2.2.1b visualizes the distribution of the relative turnout, on the ordinate, by a

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20 Due to the fact that the pure ratio of the district magnitudes is strongly right skewed, its logarithm is taken. This right-skewedness is mainly caused by Great Britain and Romania replacing their national single-member districts by one nationwide district in the European election. For a more detailed discussion, see Appendix A.1.4b.

higher magnitude, on the abscissa. The vertical line illustrates an equal district magnitude in both elections (exemplified by Malta). The relative turnout in countries with a lower district magnitude, located left of the vertical line, is spread widely, ranging between Belgium or Luxembourg and Slovakia. In contrast, most of the countries with a higher district magnitude have quite a modest relative turnout, as shown on the right side of the figure. Consequently, the correlation between a higher magnitude and the relative turnout is almost zero (– 0.08), as shown by the (more or less) horizontal line. This indicates that a higher magnitude does not systematically relate to a lower relative turnout. In other words, the cross–national comparison does not prove my second country–level hypothesis in the first instance (cH-2).

Figure 2.2.1b: Relative turnout by a higher magnitude (cH-2)
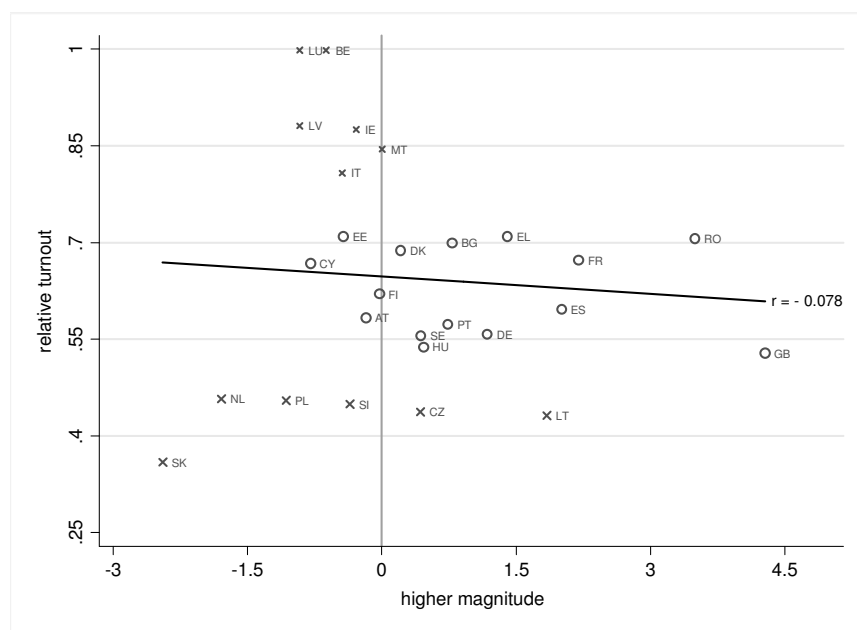
sources: relative turnout: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain; higher magnitude: DPI (2010) and Fehndrich et al. (2011).

To recap, I expect the enlarged district magnitude in the European election to increase the number of actors contesting the election. The voter is less familiar with these actors, reducing her understanding of the electoral event. Because of this lower understanding, participation is lower in the European than in the national election. However, a careful examination of the relative turnout in the context of a higher magnitude does not support my second country–level hypothesis in an initial cross–national comparison.

c)   Summary: electoral differences in the formal rules

So far Chapter 2 has introduced the concept of electoral differences in regard to the formal rules employed in the national and European elections. I examined two primary settings of the electoral system: the ballot formula and the district magnitude. Comparing each of these two settings in the national and European elections yields two electoral differences. A distinct formula occurs when a national mixed or majoritarian formula is replaced by a proportional one for the European election. This increases the relevance of parties in the European election and produces more indirect representation of the voter in the EP. A higher magnitude occurs when the number of seats contested in the voter's European electoral district is greater than in the national electoral district. This encourages more actors, with whom the voter is less familiar, to contest the election. Such electoral differences in the formal rules reduce the voter's understanding of the electoral event and thus cause systematically lower participation in the European than in the national election.

I examined the relative turnout by both a distinct formula and a higher magnitude in descriptive comparisons. My results show that a distinct formula brings about somewhat lower electoral participation at the country level. However, a higher magnitude seems to be unrelated to the relative turnout. The cross–national comparisons thus only partly support my expectation that electoral differences in the formal rules will decrease electoral participation.

Before turning to electoral differences in the vote options, I shall make a final observation on the interaction between the two differences in the formal rules. As discussed above, a distinct formula not only entails the replacement of the national formula by a different one for the EP, it also causes a reorganization of national electoral districts. Consequently, all six countries with a distinct formula are also characterized by a higher magnitude. But higher district magnitudes can be engendered by factors other than the ballot formulas employed. For example, the lower total number of contested seats in the EP than in the national parliaments necessitates a reorganization of national electoral districts for the European election, irrespective of the ballot formula, like in Spain. In other words, both of these electoral differences in the formal rules correlate with each other, although each constitutes a different setting of the electoral system (Blais and Carty 1990; Lijphart 1999; Farrell 2001; Norris 2007).

2.2.2   Electoral differences in the vote options

I now turn to the discussion of differences in the vote options, examining two primary characteristics: the number as well as the ideological diversity of such vote options. Contrasting

each of these two characteristics between the national and European elections defines two further electoral differences.

While the formal rules relate to the electoral system, electoral differences in the vote options relate to the party system, defining who represents the voter in parliament. To participate in the election and to make a meaningful vote choice, the voter has to be aware of the contesting actors and their chances of entering parliament. Otherwise, she risks wasting her vote on an actor with no realistic prospect of gaining a parliamentary seat. In addition, the voter needs to know the political alternatives provided by the contesting actors, in order to find the actor that best represents her. In sum, the vote options comprise those from whom the voter can choose to ensure representation of her political preferences in parliament and thus in politics.

Returning to my British example, the domestic British party system is mainly characterized as a two–party system. Two major parties, the Labour Party and the Conservative Party, dominate the national election as well as the House of Commons.[21] A vote for a candidate from another party risks being a wasted one in the British national election. This risk disadvantages smaller parties, decreasing the vote options in the election. Furthermore, such a two–party system tends to narrow the ideological distance between the two major parties. As both parties are seeking to win the votes of those voters in the political centre, the parties' policies tend to converge, providing few political alternatives for the voter to choose from.

In contrast, in the British European election smaller parties have a better chance of entering the EP, due to the proportional formula and the multi–member district. This increases the number of vote options from which the voter can choose at the poll, without risking a wasted vote. Moreover, the higher chance of smaller parties entering the EP means that the contesting actors try to distinguish themselves more sharply from the rest, highlighting political differences between them. This increases ideological diversity, providing more political alternatives from which the voter can choose to ensure representation of her political preferences.

The example of Great Britain illustrates the two major characteristics of the vote options as well as their relevance to the election. The first characteristic refers to the number of vote options among which the voter can choose, without the risk of wasting her vote (Downs 1957; Sartori 1976; Blais and Carty 1990; Cox 1997; Lijphart 1999; Farrell 2001; Mattila and Raunio 2006; Norris 2007; Karp and Banducci 2008). In the British national election the two major parties are advantaged, implying that a vote for a party other than Labour or the Conservatives risks being a wasted one. The more proportional outcome of the British European election, however,

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21 This two-party system is closely related to the majoritarian formula and the distribution of seats by a simple majority, supporting two major parties (Lijphart 1999; Farrell 2001; Norris 2007).

increases smaller parties' chances of entering the EP, and the voter is therefore likely to be able to choose from more vote options. This higher number of vote options defines my third electoral difference: *greater fragmentation*.

The second characteristic of the vote options is their ideological diversity, providing the voter with political alternatives from which she can choose to represent her political preferences in parliament (Downs 1957; Sartori 1976; Milbrath and Goel 1977; Dalton 1985, 2008; Cox 1997; Marsh 1998; Mattila and Raunio 2006; Norris 2007; Lachat 2008; Albright and Mair 2011). The ideologies contested in the national and European elections differ from each other. I take it that the left–right continuum reflects the primary ideology in the national election, set against the idea of European integration in the European election. However, this distinction in the underlying ideologies is not what my fourth electoral difference is about. Instead, I focus on the notion that there is less diversity among the actors on European integration than on the domestic left–right continuum. This means that the political alternatives from which the voter can choose are less diverse, defining my fourth electoral difference: *lower polarization*.

a)   Greater fragmentation

Examining differences in the vote options and thus in the party systems is crucial in regard to the EU and the European election because "there is … no European party system as such" (Mair 2000: 38; see also Reif and Schmitt 1980; Reif 1984; Marsh 1998; Hix 2005; Mattila and Raunio 2006). Instead, the party system in the EP "has developed through an aggregation of national parties and party systems" (Thorlakson 2005: 468). That is, the parties in the EP are parties of the domestic party systems of the EU member states, which are elected in a domestic contest and form the EP factions afterwards. Consequently, examining differences in the vote options is a matter of examining differences between the major actors contesting the national and European elections (Reif and Schmitt 1980; Reif 1984; Hix 2005; Schmitt 2005; Schmitt and Thomassen 2009).

Using the comparison of these major actors, I first investigate the electoral difference of the number of vote options. This is approximated by party fragmentation – the number of parties represented in either the national parliament or the EP – which constitutes my third electoral difference: greater fragmentation. In the context of greater fragmentation, I express my third country–level hypothesis and examine it in a cross–national comparison of the relative turnout, similar to the previous discussion on differences in the formal rules.

There has been much research on the greater fragmentation of parties in the EP than in the national parliaments of the EU member states (Reif and Schmitt 1980; Reif 1984; Marsh 1996; Hix

2005; Schmitt 2005; Mattila and Raunio 2006; Schmitt and Thomasson 2009). According to the second–order election theory, this greater fragmentation derives from the lower relevance of the European election. As a consequence, the voter is more likely to cast a ballot for a smaller party, trying something new or punishing the national government parties for disliked politics on the domestic level (Reif and Schmitt 1980; Reif 1984; Marsh 1996; Schmitt 2005; Mattila and Raunio 2006). This voting behaviour improves the chance of smaller parties gaining a seat, increasing party fragmentation in the EP.

However, previous research on party fragmentation in the EP has mainly been based on the so–called effective number of parties, taking their relative size, in terms of the distribution of parliamentary seats, into account (Reif and Schmitt 1980; Reif 1984; Schmitt 2005; Mattila and Raunio 2006).[22] But immediately previous to the election, the effective number of parties in the parliaments is less relevant for the voter than each party's chance of entering parliament at all. The voter has to be aware of her preferred actor's probability of gaining a seat, to avoid risking a wasted vote (Riker and Ordeshook 1968; Sartori 1976; Laakso and Taagepera 1979; Lijphart 1999; Aldrich 2001; Degan 2006; Norris 2007).[23]

In other words, it is the absolute number of parties which counts. This approximates the number of vote options from which the voter can choose at the poll. In the national parliaments of the EU member states, the average number of parties is about seven, ranging from two parties in the Maltese House of Representatives to twelve parties in the French National Assembly. In comparison, the average number of parties in the EP is about six, varying between two parties in Malta and twelve in Belgium. Thus, on average, the absolute number of parties is lower in the EP than in the national parliaments, implying somewhat fewer vote options in the European election.[24]

My first difference in the vote options is based on this comparison of the absolute number of parties in the national and European elections. It is operationalized by the ratio of the number of parties in the EP, divided by their number in the national parliaments. Setting an equal number of parties in both parliaments to zero defines *greater fragmentation*. Five out of the 27 EU member

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22 The effective number of parties depends on the electoral outcome. It is a consequence of the distribution of seats resulting from the parties' vote-shares in the election (Laakso and Taagepera 1979; Cox 1997; Lijphart 1999; Farrell 2001; Norris 2007; Dalton 2008).

23 In addition, because some of the actors contesting the European election are also represented in the national parliament, the voter is more familiar with the relative size of these parties in the national parliament than in the EP, overlaying her perception of the parties in the European election (Reif and Schmitt 1980; Thorlakson 2005; Hobolt and Wittrock 2011; Wagner 2012).

24 The lower number of parties in the EP at least partly derives from the lower number of seats contested in total. For example, the Cypriots contest a total of six seats in the EP. This increases the minimum vote-share, necessary to gain a seat, reducing the chances of smaller parties entering parliament and thus decreasing the vote options in the European election.

states, such as Malta and Slovakia, have an equal number of parties in both parliaments. 17 countries, including Luxembourg and Lithuania, have fewer vote options. The remaining five countries, for example Romania and Great Britain[25], are characterized by greater fragmentation.[26]

Cross–national research shows that greater fragmentation increases electoral participation. It implies a higher number of vote options, increasing the representation of minorities in parliament and hence the individual likelihood of voting in the election (Blais and Carty 1990; Cox 1997; Gordon and Segura 1997; Degan 2006; Mattila and Raunio 2006; Norris 2007; Karp and Banducci 2008; Banducci and Karp 2009; Nevitte et al. 2009; Fraile 2010; Dahlberg 2013). In contrast to this positive effect, political research also suggests that more vote options exerts a negative influence on electoral participation. If their number becomes too high, the costs of becoming informed about the vote options exceed the benefits of voting. This imbalance of costs and benefits causes the voter to abstain from the poll and electoral participation is systematically lower (Downs 1957; Riker and Ordeshook 1968; Sartori 1976; Owen and Grofman 1984; Lijphart 1999; Aldrich 2001; Degan 2006; Nevitte et al. 2009; Dahlberg 2013).

In this cross–level study, I expect to see greater fragmentation having a negative effect on participation in the European election. Greater fragmentation implies more vote options in the European than in the national election. That is, some of the parties in the European election are not represented in the national parliaments. These parties are less visible on the domestic level, decreasing the voter's familiarity with them (Anderson 1998; Mair 2000). Consequently, the voter needs to acquire information about such additional vote options in the European election, which increases the costs of voting (Downs 1957; Riker and Ordeshook 1968; Owen and Grofman 1984; Aldrich 2001; Degan 2006; Dahlberg 2013). Otherwise, she remains less informed, resulting in a lower understanding of the electoral event, which decreases her likelihood of casting a ballot for the EP. In short, my third country–level hypothesis is:

Greater fragmentation decreases participation in the European election (cH-3).

This third country–level hypothesis implies that greater fragmentation relates to a lower relative turnout. Figure 2.2.2a illustrates the relationship between greater fragmentation (abscissa) and the relative turnout (ordinate), similar to the illustration of a higher magnitude in Figure 2.2.1b above. The vertical line symbolizes an equal number of vote options in both elections, as in Malta

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25 Notwithstanding the description of the British system as a two-party system, the absolute number of parties in the House of Commons after the 2005 national election was six. However, the crucial aspect here is the fact that the Labour and the Conservative Party together capture about 86% of the seats in the British part of the House of Commons (i.e. excluding Northern Ireland), whereas the other four parties are of minor importance.

26 Appendix A.1.4c discusses the number of parties in the national parliaments and in the EP.

or Slovakia. Countries with fewer vote options are located on the left side of the vertical line. These countries cover almost the whole range of the relative turnout, ranging between Luxembourg and Lithuania or the Czech Republic. Overall, the distribution does not indicate any systematic relation between greater fragmentation and a lower relative turnout, as further evidenced by the (more or less) horizontal correlation line (0.07). In short, the descriptive comparison does not support my third country–level hypothesis in the first instance (cH-3).

Figure 2.2.2a: Relative turnout by greater fragmentation (cH-3)
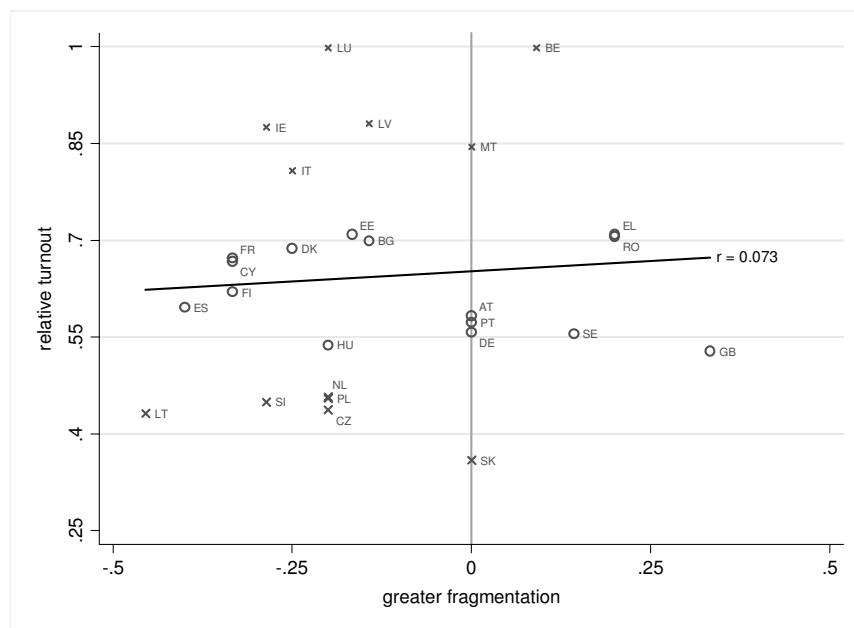
sources: relative turnout and greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.

In sum, greater fragmentation indicates a larger number of vote options in the European than in the national election. It implies that some of the parties in the EP are not represented in the national parliaments. These parties are less visible to the voter, decreasing her familiarity with the vote options as well as her understanding of the European election. As a consequence, she is less likely to cast a ballot for the EP and electoral participation is systematically lower, as expected by my third country–level hypothesis. However, examining the relative turnout by greater fragmentation, the cross–national comparison does not support this hypothesis.

b) Lower polarization

The second characteristic of the vote options is their ideological diversity. This determines the political alternatives from which the voter can choose at the poll. To introduce the fourth electoral difference, I briefly distinguish between fragmentation and polarization, and discuss the

relevance of polarization for electoral participation. I then turn to the primary domestic ideology, the left–right continuum, which determines the national electoral contest. The primary ideology in the European election is the idea of European integration. The difference between the domestic left–right continuum and the idea of European integration is the first distinction within the concept of polarization. However, my fourth electoral difference is not about a distinct contested ideology, but it relates to the fact that there is less diversity on European integration among the contesting actors than on domestic left–right issues. This defines my fourth electoral difference: lower polarization. Using this definition, I express a fourth country–level hypothesis and test it once again in a descriptive comparison of the relative turnout.

As discussed, fragmentation refers to the number of vote options: it indicates the number of parties with a chance of entering parliament, defining the pool from which the voter can choose without risking a wasted vote. In contrast, polarization refers to the ideological diversity of the contesting actors. It determines the political alternatives from which the voter can choose to ensure the representation of her political preferences in parliament and thus in politics (Sartori 1976; Dalton 1985, 2008; Lijphart 1985, 1999; Granberg and Holmberg 1988; Norris 2007; Albright and Mair 2011).

Political ideologies separate political actors from each other and simplify the voter's political world. Instead of completely understanding politics and political actors, the voter can employ the actors' ideological behaviour as a shortcut for information on their positions on various political issues (Downs 1957; Lipset 1960; Campbell et al. 1964; Sartori 1976). In the context of domestic politics "no abstraction has been used more frequently … than the concept of … the 'right' and the 'left' of a political spectrum" (Campbell et al. 1964: 111). It primarily opposes economic market liberalization on the right and economic market regulation on the left (Downs 1957; Lipset 1960; Granberg and Holmberg 1988), while non–economic issues, such as social equality and minority rights, penetrate this continuum (Lipset 1960; Franzmann and Kaiser 2006). Here, I use the term *domestic left–right continuum* to describe the primary domestic ideology contested by actors in the national election.

In the context of the EU, the most important political ideology is the idea of European integration. According to Haas (2004: 16), European integration "is the process whereby political actors in several distinct national settings are persuaded to shift their loyalties, expectations and political activities towards a new centre … over the pre-existing national states." The idea of European integration not only implies a transition of domestic authority to a supranational level, but also "the penetration of the European dimension into national arenas of politics and policy–making" (Ladrech 2002: 391). That is, it describes a reciprocal process of integration between the

EU member states and the EU (Lindberg 1963, Anderson 1998; Ladrech 2002; Eising 2003; Hix 2005; Haas 2006).[27] Unlike the domestic left–right continuum, the idea of European integration is less about economic liberalization than about the harmonization of economic and political structures among the EU member states. Its political alternatives range from a deeper integration on the one side to winding back this integration process, i.e. more national sovereignty, on the other side (Radaelli 2000; Hix 2005). I take the *idea of European integration* to be the primary ideology in the European election.

Figure 2.2.2b-1: The orthogonality assumption on the domestic left–right continuum and the idea of European integration
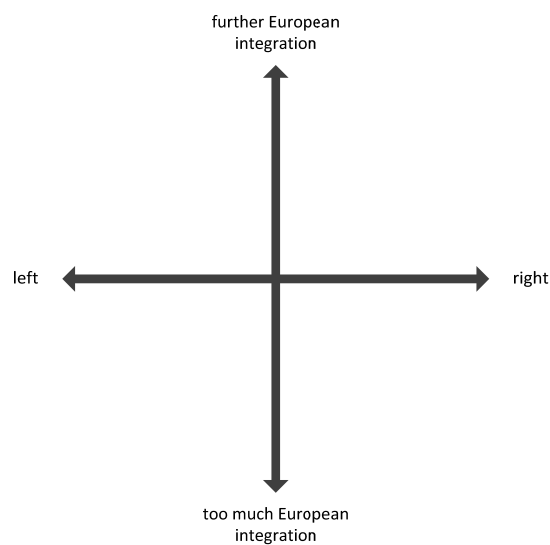
Although the domestic left–right continuum and the idea of European integration are occupied by the same political actors, the two ideologies are not directly related to each other. They can best be described as being orthogonally related. That is, the domestic left–right continuum and the idea of European integration are two different dimensions of an ideological space, as illustrated in Figure 2.2.2b-1 (Hooghe et al. 2002; Hix 2005; Schmitt and Thomassen 2009). This orthogonality has two implications. First, an actor's position on one ideological continuum does not directly relate to the actors' position on the other. Second, a voter's understanding of one of the ideologies does not directly transpose to the other ideology. This relationship of the domestic left–right continuum and the idea of European integration is termed the *orthogonality assumption* in this book.

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27 Due to the reciprocal relationship of integration between the EU member states as well as between the countries and the EU, Eising (2003) suggests talking of Europeanization rather than European integration. However, taking the reciprocity of this process into account, I use the term European integration.

Unlike the electoral differences discussed above, the operationalization of the actors' polarization is more complex and abstract. To measure polarization on a single ideology, I follow a concept of Dalton (2008), who suggests calculating some kind of a standard deviation of the actors' diversity. Assuming "a conceptual continuum along which party systems can be approximately located" (Sartori 1976: 337), I take survey respondents' placement of parties on both the domestic left–right continuum and the European integration continuum, derived from the questions shown in Table 2.2.2b. In a first step, I calculated the average squared sum of differences between a party's sample mean and the overall sample mean of all parties in each of the EU member states, divided by the mid–point of the underlying scale. Second, this average squared sum is divided by the number of parties observed and its square root is taken, operationalizing the actors' polarization on a single ideological continuum.[28]

Table 2.2.2b: Operationalizing the actors' polarization

domestic left–right continuum	European integration continuum
• "In political matters people talk of "the left" and "the right" … Please indicate your views using any number on a scale from 0 to 10, where 0 means "left" and 10 means "right" … And about where would you place the following parties on this scale?" (Q46f.)	• "Some say European unification should be pushed further. Others say it already has gone too far. What is your opinion? Please indicate your views using a scale from 0 to 10, where 0 means unification 'has already gone too far' and 10 means it 'should be pushed further' … And about where would you place the following parties on this scale?" (Q80f.)

source: EES (2009), British Questionnaire.

The concrete values of the index calculated on a single ideological continuum are not very meaningful on their own. But under comparison they reveal differences in the actors' ideological diversity on each continuum across the EU member states. The average polarization on the domestic left–right continuum in the EU member states is about 0.37. It ranges between Belgium with quite a low polarization (0.18) and Hungary with the highest polarization (0.52). In comparison, the average polarization on European integration is notably lower, by about 0.20. It varies between Latvia with the lowest (0.10) and Sweden with the highest polarization (0.39) among all EU member states.

This comparison of the actors' polarization on the domestic left–right continuum and the idea of European integration defines my second electoral difference in the vote options. It is operationalized by the polarization ratio, dividing the actors' diversity on European integration by

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28 For a more detailed discussion of the operationalization of the actors' polarization on a single ideological continuum, see Appendix A.1.4d.

their diversity on the domestic left–right continuum. I invert the ratio, so that higher values refer to less diversity on European integration than on domestic ideology. Setting an equal polarization on both continuums to zero defines *lower polarization*. Overall, actors' diversity is lower on European integration than on the domestic left–right continuum in almost all of the EU member states. My measurement ranges from Bulgaria and Cyprus (both 0.76) to Great Britain (– 0.04) and Austria (– 0.06). Indeed, these latter two countries are the only two to have a negative value, indicating that the actors' diversity tends to be somewhat higher on the European ideology scale than on the domestic one.

Apart from Austria and Great Britain, the actors' diversity is lower on European integration than on the domestic left–right continuum. Earlier research has attributed this lower diversity to the fact that most domestic actors tend to be quite supportive of the European integration process. These actors are involved in the integration process not only via the EP, but also via their national governments in the EC Council or in the domestic implementation process of EU laws in their national parliaments (Hooghe et al. 2002; Hix 2005; Hooghe and Marks 2008; Schmitt and Thomasson 2009). This reduces diversity on European integration, causing the lower polarization observed.

Research shows that electoral participation rises with greater diversity of the contesting actors on a single political ideology. It increases the political alternatives from which the voter can choose at the poll. Consequently, the voter has a better chance of finding an actor who represents her political preferences and is more likely to express these preferences at the poll. In short, higher polarization increases electoral participation (Campbell et al. 1964; Verba and Nie 1972; Dalton 1985, 2008; Koch 1998; Marsh 1998; Perea 2002; Mattila and Raunio 2006; Lachat 2008).

Such cross–national findings imply that lower polarization decreases electoral participation, due to fewer political alternatives and poorer representation of the voter's preferences in parliament. In the context of the EU, the voter tends to be less supportive of the European integration process than the actors contesting the election (Hooghe 2003; Hix 2005; Mattila and Raunio 2006; Hobolt et al. 2008; Hooghe and Marks 2008; Lefkofridi and Katsanidou 2014). This discrepancy between the actors and the voter has two consequences. First, the voter's preferences are less well represented in the European election and the EP. Second, it decreases the voter's understanding of the European election. The actors' lower diversity on European integration indicates less competition between them. It decreases the visibility of the political alternatives (theoretically) provided by the idea of European integration and thus reduces the

voter's understanding of it as well as of the European election (Koch 1998). Thus, the voter is less likely to cast a ballot for the EP, as expected by my fourth country–level hypothesis:

Lower polarization decreases participation in the European election (cH-4).

Figure 2.2.2b-2: Relative turnout by lower polarization (cH-4)
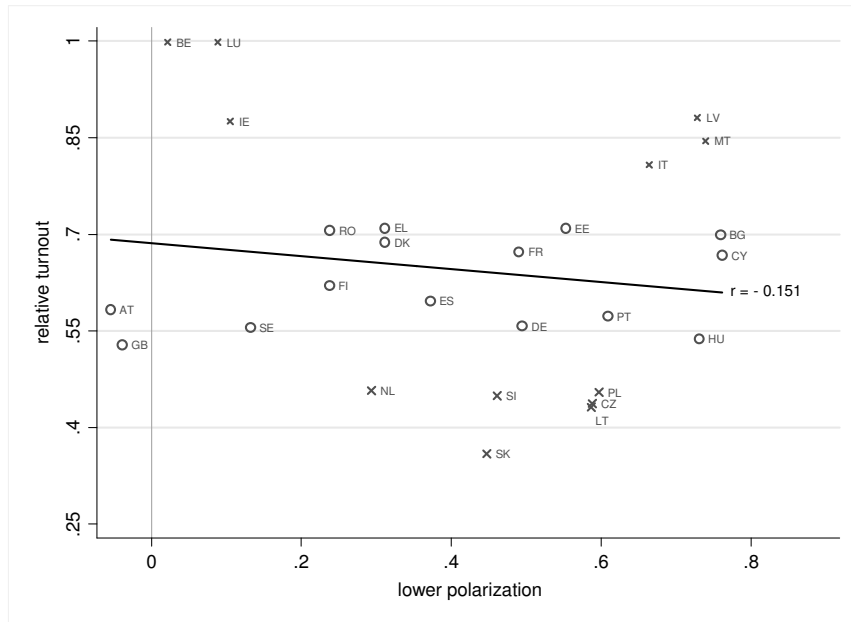
sources: relative turnout: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain; lower polarization: EES (2009).

This fourth country–level hypothesis implies that lower polarization relates to a lower relative turnout. Figure 2.2.2b-2 visualizes the distribution of the relative turnout (ordinate) by lower polarization (abscissa). The vertical line displays an equal polarization of actors on the idea of European integration and on the domestic left–right continuum. Belgium and Great Britain are clearly located close to this line, indicating little difference between the actors' diversity on both ideologies. Moreover, Austria and Great Britain are located to the left of the vertical line, being the only two countries with higher polarization, as discussed above. Among the countries with a comparatively high relative turnout, Belgium, Ireland and Luxembourg are positioned next to the vertical line, opposing Latvia, Italy and Malta on the upper right side of the figure. These three countries stand out, due to their comparatively lower polarization and a comparatively high relative turnout. In contrast to this ambiguous distribution of countries with a high relative turnout, countries with a low relative turnout, such as the Czech Republic, Lithuania and Poland, are mainly located on the lower right side. The correlation between lower polarization and a higher relative turnout is slightly negative (– 0.15), as illustrated by the decreasing line in Figure

2.2.2b-2. It indicates that the relative turnout tends to decrease with a diminishing polarization, as expected by my fourth country–level hypothesis (cH-4).

To sum up, I expect the actors' lower diversity on European integration than on the domestic left–right continuum to decrease the voter's understanding of the electoral event. Because most actors are quite supportive of European integration, there exists little competition between them. This reduces the visibility of alternatives, reducing the voter's understanding of European ideology and thus of the European election. Examining the relative turnout by lower polarization, the cross–national comparison slightly supports my fourth country–level hypothesis: (aggregated) electoral participation tends to be lower due to lower polarization.

c) Summary: electoral differences in the vote options and the interactions of electoral differences

Section 2.2.2 introduced electoral differences in the vote options, examining their numbers as well as their ideological diversity. Comparing parties' fragmentation and the actors' polarization in both elections defined two electoral differences in the vote options. Greater fragmentation occurs due to a higher number of parties in the EP and the European election than in the national parliament. Lower polarization refers to the actors' lower ideological diversity on European integration than on the domestic left–right continuum. I expected such differences in the vote options to decrease the voter's understanding of the European election and thus reduce electoral participation. To investigate this expectation, I examined the relative turnout by greater fragmentation as well as by lower polarization. While greater fragmentation tends to be unrelated, lower polarization is linked to a somewhat lower relative turnout. The actors' lower diversity on European integration reduces the voter's understanding of the electoral event, because of which she is less likely to cast a ballot in the European election.

A final remark on electoral differences in the vote options refers to their interaction: greater fragmentation negatively relates to lower polarization. With more vote options, the actors try to put more distance between them, increasing their ideological diversity (Downs 1957; Sartori 1976; Granberg and Holmberg 1988; Lijphart 1999; Dalton 2008). Consequently, greater fragmentation and lower polarization negatively correlate (– 0.41) with each other, indicating that a higher number of vote options yields greater diversity on European integration. As most domestic actors are quite supportive of European integration, smaller parties that oppose the ongoing European integration process have a greater chance of gaining votes in the European election and thus entering the EP. This increases fragmentation. Greater fragmentation in turn leads the contesting actors to try to separate from each other, causing higher polarization.

Likewise, electoral differences in the formal rules and in the vote options interact with each other. For example, a higher magnitude causes a more proportional vote–seat transfer and increases the chance of smaller parties entering parliament. Consequently, a higher magnitude correlates with greater fragmentation (0.30), as well as with lower polarization (− 0.18).

To conclude, electoral differences are interdependent. Changing one of the characteristics of the electoral procedures has consequences for the other characteristics, too. However, such interactions are beyond the scope of this study, which focuses on a first insight in the effects of electoral differences on electoral participation. But the complexity of electoral differences should be kept in mind in the following.

2.3   Summary: electoral participation and the concept of electoral differences

In Chapter 2, I have introduced my research approach, investigating lower participation in the European election caused by electoral differences. I focused on participation in the 2009 European election, compared to the previous national election, and defined the current research population: (national) voters. I briefly introduced the second–order election theory, explaining lower turnout in the European election by the EU's lower salience. Next, I went on to develop the concept of electoral differences. As illustrated in the upper left part of Figure 2.3, I distinguish between electoral differences in the formal rules – a distinct formula and a higher magnitude – and electoral differences in the vote options – greater fragmentation and lower polarization. My basic research expectation is that such differences reduce the voter's understanding of the electoral event and thus decrease participation in the European election.

This expectation implies that electoral differences systematically relate to lower aggregated electoral participation. In other words, turnouts in the European election are systematically lower in countries with electoral differences in the formal rules as well as in the vote options, as shown in the upper part of the figure. In this context, I examined the relative turnout by the four electoral differences in cross–national comparisons. These initial analyses only partly support my underlying expectation. Out of the four electoral differences, a distinct formula and lower polarization tend to relate to a somewhat lower relative turnout. However, a higher magnitude and greater fragmentation seem to be unrelated to aggregated electoral participation.

These unanticipated findings might be due to the cross–national comparisons employed. After all, electoral participation is an individual behaviour. It is the individual voter who decides to cast a ballot for the EP or to abstain from the poll. Consequently, electoral differences must affect an individual voter's decision to participate in the European election. Ignoring this individual

approach by examining the relative turnout at the country level causes a so–called ecological fallacy. That is, employing "marginal frequencies which determine the percentages from which the ecological correlation is computed do not fix the internal frequencies which determine the individual correlation" (Robinson 1950: 354). In other words, the aggregation of voters' behaviour at the country level overlies the individual decision to participate or to abstain. Cross–national comparisons are thus inappropriate for dealing with the effects of electoral differences on the individual voter. Instead, an individual–level approach is needed, explaining why electoral differences affect a voter's likelihood of casting a ballot for the EP (Dahl 1961; Wainer 1986; Nevitte et al. 2009; Hobolt and Wittrock 2011), as indicated in the lower part of Figure 2.3.

Figure 2.3: Electoral differences and participation in the European election
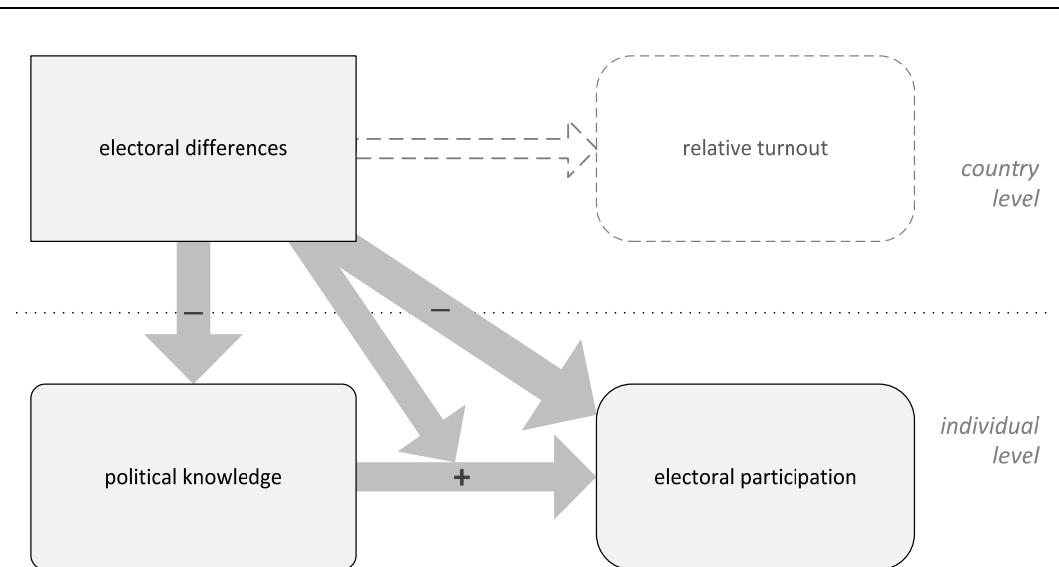
According to my research expectation, electoral differences reduce the voter's understanding of the European election. As a consequence of this lower understanding, she is less likely to cast a ballot for the EP and participation in the European election is systematically lower. To examine this assumption in greater detail, as a first step I investigate the voter's lower understanding of the EU and the European election. Assuming that this lower understanding is primarily a matter of individual political knowledge, Chapter 3 begins to explore the voter's knowledge of the EU, as illustrated in the lower left part of Figure 2.3. In Chapter 4, I then show how electoral differences systematically diminish political knowledge about the EU, reducing the voter's ability to better understand the European election. That is, the chapter investigates the left side of the figure. In a second step, Chapter 5 examines lower participation in the European election. Because of the voter's poorer understanding of the EU, she is less likely to cast a ballot for the EP. Instead, electoral differences necessitate greater political knowledge to become aware of the differences

that exist and to overcome their consequences for the European election as well as for the EU, as shown in the figure.

3. The voter's domestic perspective on the EU

To develop an individual–level approach to electoral differences, Chapter 3 investigates the voter's political knowledge, in the belief that such knowledge increases the individual understanding of the EU and the European election. I expect the voter's knowledge of the EU to be secondary, compared to political knowledge of the domestic level. The lower salience of EU politics means that European knowledge is less relevant for the voter, reducing the incentives to become better informed about the EU. Instead, the multi–level structure enables her to employ a domestic perspective. That is, the voter resorts to political knowledge acquired on the domestic level as a proxy for the EU. To demonstrate the validity of this assumption, I employ multi–level regression analysis.

The cross–national comparisons of the relative turnout by electoral differences in Chapter 2 partly supported my research expectation in a first instance. A distinct formula and lower polarization tend to relate to lower aggregated participation in the European election. But, as argued in the final section of that chapter, the decision to cast a ballot for the EP or to abstain from the poll is an individual one. My concept of electoral differences thus necessitates an individual–level approach, examining the effects of such differences on the individual voter and her likelihood of participating in the European election.

Chapter 3, therefore, begins the investigation of the individual voter. According to the first part of my research expectation, electoral differences reduce the voter's understanding of the EU and the European election. Assuming that understanding is primarily a matter of political knowledge, Chapter 3 starts by looking at the voter's various knowledge components and her domestic perspective on the EU. Defining political knowledge in Section 3.1, I distinguish between two different facets: knowledge about the political (sub–)systems and knowledge about underlying political ideologies. Further, I distinguish between the different political levels these facets relate to, in terms of the domestic and the European level. In this context, I expect that knowledge about the EU is secondary to knowledge about domestic politics. Instead, the multi–level political structure of the EU and the nation–state enables the voter to employ a domestic perspective on the EU. That is, she resorts to political knowledge acquired on the domestic level, as discussed in the second section of this chapter. To demonstrate this, I express three individual–level hypotheses on individual political knowledge and test them, primarily by employing regression analysis.

3.1   Political knowledge

Political knowledge is an individual's structured "information about politics that is stored in the long–term memory" (Delli Carpini and Keeter 1996: 8). This definition implies two different facets of individual political knowledge. On the one hand, it refers to correct factual information about politics, for example in terms of political institutions, the current political agenda or the electoral rules (Downs 1957; Neuman 1981, 1986; Lambert et al. 1988; Zaller 1992; Delli Carpini and Keeter 1996; Wagner 2012; Clawson and Oxley 2013). On the other hand, it covers an individual's conceptualization – her "configuration of ideas and attitudes" developed to structure and combine isolated pieces of information "by some form of constraint or functional interdependence" (Converse 1964: 207) in terms, for example, of political ideologies (Downs 1957; Campbell et al. 1964; Neuman 1981, 1986; Luskin 1990). In this study, I define the voter's *political knowledge* as an individual's conceptualization of correct information about politics.

Political knowledge is a "prerequisite for a well functioning and stable democracy" (Benz and Stutzer 2004: 31). To participate in politics, the voter needs political knowledge, at least to some degree (Downs 1957; Bennett 1989; Delli Carpini and Keeter 1996; Gabel 1998; Clawson and Oxley 2013). First of all, political knowledge enables the voter to understand the world of politics, "to generate a mental picture of what is at stake and … to make a judgment about it" (Zaller 1991: 1215). Second, political knowledge increases the voter's awareness of her own political preferences and explains the political alternatives (Dalton 2000; Galston 2001; Clawson and Oxley 2013). Finally, political knowledge enables the voter to learn more about politics. Building on a prior stock of political knowledge supports the acquisition and conceptualization of further information (Neuman 1981, 1986; Zaller 1991; Matsusaka 1995; Galston 2001; Lachat 2008; Vries et al. 2011; Clawson and Oxley 2013).

In the context of electoral participation, the voter needs political knowledge for different reasons. It explains the formal rules of the election, for example how to cast a ballot, and thus enables her to participate in the election. It increases the voter's understanding of the current agenda, enabling her to follow the election campaign and to become aware of the alternatives being contested. Likewise, political knowledge increases the voter's awareness of her political preferences, enabling her to find the actor that best represents these political preferences and thus to make a meaningful vote choice at the poll. In short, political knowledge provides motivation to vote (Neuman 1981, 1986; Dalton 1984, 2002; Neuman et al. 1992; Matsusaka 1995; Delli Carpini and Keeter 1996; Galston 2001; Lassen 2005; Larcinese 2009; Clawson and Oxley 2013).

Political knowledge is a multi–dimensional phenomenon, depending on different facets as well as referring to different political levels (Gordon and Segura 1997; Anderson 1998; Karp et al. 2003; Kritzinger 2003; Wagner 2012). Figure 3.1 illustrates the two political levels I am concerned with in this study.[29] Its upper part illustrates political knowledge at the domestic level, termed *domestic knowledge* in the following. It covers the voter's knowledge of areas such as the current domestic political agenda, the formal rules of the national election and domestic political ideology. The lower part of the figure represents political knowledge at the European level – *European knowledge* – covering issues such as the EU political agenda, the formal rules of the European election and the idea of European integration. These two levels of political knowledge are interdependent, at least to some degree, for example in terms of domestic actors on the European level, such as the domestic parties in the EP. This interdependence enables the voter to transfer political knowledge from the domestic level to the European one to some extent. Domestic knowledge about parties, for example, can be carried across to the European level to better understand these parties' behaviour in the EP.

Figure 3.1: Components of the voter's political knowledge
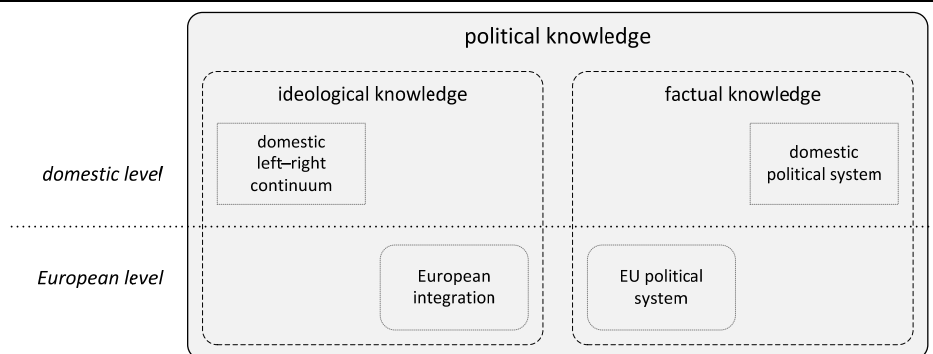
In addition, political knowledge is composed of two different facets. *Factual knowledge* covers the voter's information about the political system, the current agenda, or the formal rules of the election at a given political level, as illustrated on the right side of Figure 3.1. *Ideological knowledge* is about the underlying political ideology and the voter's understanding of the actors' political behaviour, shown on the left side of the figure. The two facets have a reciprocal relationship. To understand politics, the voter needs both factual and ideological knowledge. For example, while factual knowledge explains how to cast a ballot in the election, ideological knowledge helps to understand the voter's political preferences, as well as the political alternatives provided by the actors contesting the election. Moreover, factual and ideological

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29 Of course, there are further political levels: for example, local politics or international relations; but they are beyond the scope of my interest in the present study.

knowledge have a mutually enhancing effect. For example, ideological knowledge enables the voter to interpret the actors' political behaviour and thus helps her to better understand the underlying political structure, increasing her factual knowledge (Downs 1957; Campbell et al. 1964; Converse 1964; Neuman 1981, 1986; Luskin 1990; Neuman et al. 1992).

3.1.1   Factual knowledge

The distinction between factual and ideological knowledge is of central interest for my concept of electoral differences in the formal rules and in the vote options, discussed in greater detail in Chapter 4. Here I aim to examine the voter's political knowledge and its components. I first investigate factual knowledge, its relevance and its operationalization on both the domestic and the European level. Afterwards, I discuss ideological knowledge on both political levels.

Factual knowledge refers to the voter's knowledge about the individual elements that compose the political system. In the context of an election, it enables the voter to distinguish between these elements and to understand politics. It increases her awareness of, for example, the current political agenda and the role of the institution being elected. More importantly, factual knowledge includes information about the electoral system. It explains the electoral rules, for example the ballot formula employed, and enables the voter to participate in the election (Downs 1957; Neuman 1981, 1986; Luskin 1990; Zaller 1992; Delli Carpini and Keeter 1996; Luskin and Bullock 2004; Wagner 2012; Clawson and Oxley 2013).

To measure factual knowledge, I employ a well–known research concept, adding up correct responses to political statements, listed in Table 3.1.1 (Bennett 1989; Zaller 1992; Karp et al. 2003; Luskin and Bullock 2004; Gherghina 2010; Wagner 2012). Respondents were asked to confirm or to reject each of these statements. Correct responses are coded 1, adding up to a single index of factual knowledge. I calculate a separate index of factual knowledge for each of the two political levels. The first index refers to the domestic level, based on the three statements on the left side of Table 3.1.1, termed *factual domestic knowledge*. The second index, *factual European knowledge,* is based on the three statements on the right side of the table. Both indexes range on a four–point scale, from no correct response (0) to all statements correctly responded to (3).[30]

Obviously, the statements employed to operationalize factual knowledge have little bearing on the formal rules of either the national or the European election. However, earlier research has shown that measuring factual knowledge in this way produces a fairly accurate assessment of an

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30 For further details on the operationalization of the voter's factual knowledge components, see Appendix A.1.3a.

individual's overall factual knowledge (Neuman 1986; Zaller 1991; Delli Carpini and Keeter 1993, 1996; Clawson and Oxley 2013). To conclude, although the statements employed do not directly relate to the formal rules of the elections, I expect both measurements to approximate the voter's factual knowledge about the electoral systems of both levels.

Table 3.1.1: Operationalizing the voter's factual knowledge

factual domestic knowledge	factual European knowledge
• "The British Secretary of State for children, schools and families is Ed Balls." (Q96)	• "The European Union has 25 member states." (Q93)
• "Individuals must be 25 or older to stand as candidates in British general elections." (Q97)	• "Every country in the EU elects the same number of representatives to the European Parliament." (Q94)
• "There are 969 members of the British House of Commons." (Q98)	• "Every six months, a different Member State becomes president of the Council of the European Union." (Q95)

source: EES (2009), British Questionnaire.

3.1.2   Ideological knowledge

Complementary to factual knowledge, ideological knowledge comprises the voter's "use of abstract concepts in the structuring of belief elements" (Neuman 1981: 1241) in terms of underlying political ideologies. Ideological knowledge increases the voter's awareness of her political preferences and attitudes. Moreover, it enables her to understand the different ideological positions of actors. In the context of electoral participation, ideological knowledge enables the voter to find the actor that represents her preferences best. It explains the alternatives contested and mobilizes the voter to cast a ballot for her favoured actor (Downs 1957; Converse 1964; Neuman 1981, 1986; Luskin 1990; Zaller 1992; Gordon and Segura 1997; Dahl 2000; Jacobs and Pollack 2006).

Ideological knowledge is hard to measure, reflecting the voter's understanding of an "abstract terminology and the application of that terminology to real–world phenomena" (Gordon and Segura 1997: 134). Earlier studies developed the idea of comparing respondents' placements of political actors on an ideological continuum to a more objective location of the same actors (Luskin 1990; MacDonald et al. 1995; Gordon and Segura 1997; Luskin and Bullock 2004; Ensley 2007; Turgeon 2008; Schmitt and Thomasson 2009).

There are two primary means of using these placements. The first observes at which end of the continuum the respondent places an actor. If the respondent locates the party at the same end

of the continuum as the more objective placement does, it is counted correct. Correct placements add up to an index, similar to those created to operationalize factual knowledge above.[31] The second approach depends on "the absolute distances between the respondent's placement of each of … her society's political parties … and the mean placement of those parties" (Gordon and Segura 1997: 133).

Employing this second approach, I distinguish between *ideological domestic knowledge* and *ideological European knowledge*. The voter's ideological domestic knowledge is based on the domestic left–right continuum, shown on the left side of Table 2.2.2b. Ideological European knowledge is based on the European integration continuum, shown on the right side of the table. I first take the logarithm of the average absolute difference between a respondent's party placements on a given ideological continuum and the appropriate sample–mean placements for the same parties. In a second step, this measurement is inverted to ensure that a higher value refers to greater ideological knowledge. Finally, I standardize the index to a range between 0 (low ideological knowledge) and 1 (high ideological knowledge). This process is carried out for the domestic and the European level, separately operationalizing knowledge about domestic and European ideology.[32]

3.1.3 The secondary nature of European knowledge

Having separated factual and ideological knowledge, I turn to the expectation that the voter's European knowledge is secondary to her domestic knowledge. Earlier research has found that citizens know little about the EU, at least in comparison to domestic politics (Anderson 1998; Karp et al. 2003; Kritzinger 2003; Wagner 2012). I assume that this lack of European knowledge is due to the lower salience of the EU, discussed in Chapter 2. Lower salience renders European knowledge less important for the voter. Meanwhile, acquiring political knowledge is costly in terms of time or money (Downs 1957; Neuman 1986; Zaller 1992; Degan 2006; Larcinese 2009; Clawson and Oxley 2013). Such information costs are balanced against the low benefits of greater European knowledge. As a consequence, it is rational for the voter to invest little in European knowledge, but to focus on domestic knowledge instead.

In other words, European knowledge is of a secondary nature, compared to domestic knowledge. Consequently, the voter knows systematically less about the EU, its political system and the idea

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31 This approach faces the problem that parties located at the mid–point of a continuum are hard to handle, i.e. a respondent is significantly more likely to misallocate such a party than to place a party on the entirely wrong end of the continuum (Luskin and Bullock 2004; Turgeon 2008).

32 For a more detailed description of the operationalization of ideological knowledge on both continuums, see Appendix A.1.3b.

of European integration than about her domestic politics, the domestic political system and the domestic left–right continuum. My first individual–level hypothesis is thus:

The voter's European knowledge is lower than domestic knowledge (iH-1).

This first individual–level hypothesis must of course be true for factual knowledge as well as for ideological knowledge. Figure 3.1.3-1 illustrates the distribution of factual knowledge on the domestic level (left side) and the European level (right side). On average, factual domestic knowledge is about 1.91 and thus slightly higher than average factual European knowledge (1.77).[33] Overall, a mean voter is able to respond correctly to two of the three statements on both the domestic and the European level. But the rate of correct responses tends to be somewhat higher for factual domestic than for factual European knowledge. About two thirds of voters manage correct responses to at least two statements. But the percentage of voters that respond correctly to all three statements is remarkably higher for factual domestic knowledge (30.7%) than for factual European knowledge (24.0%). At the opposite end of the spectrum, about 7.1% of the voters were unable to respond correctly to at least one statement on the domestic level, compared to about 10.5% on the European level.

Figure 3.1.3-1: Comparing the voter's factual knowledge (iH-1)
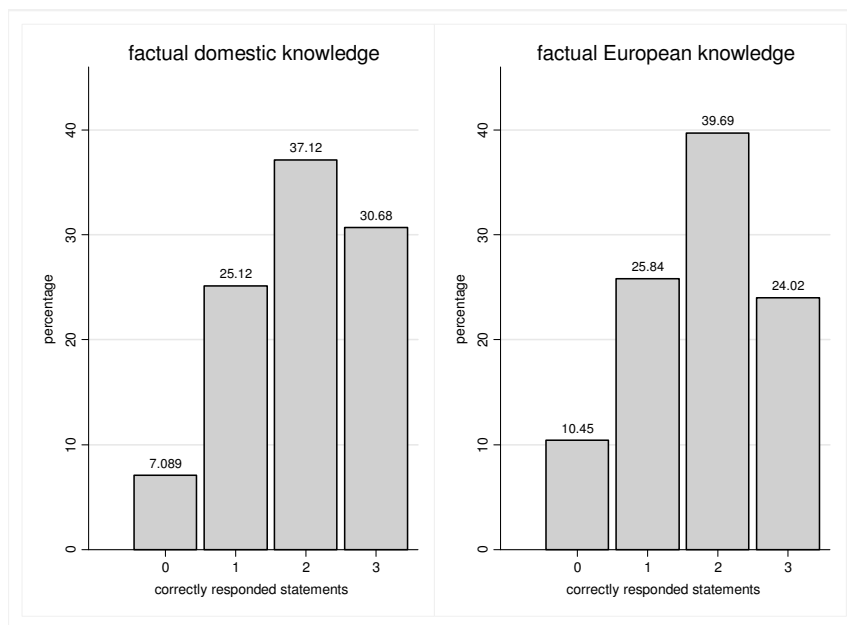
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33 Comparing the facets of political knowledge on both levels relies on un-weighted data, not taking into account differences between the EU member states. This analysis examines voters in the EU as a whole.

To conclude, the distributions of factual knowledge on both levels are relatively similar. But the voter's factual European knowledge tends to be somewhat lower than her factual domestic knowledge. This finding supports my first individual–level hypothesis in regard to factual knowledge: because of its secondary nature, the voter knows less about the EU political system than about her domestic political system (iH-1).

Figure 3.1.3-2: Comparing the voter's ideological knowledge (iH-1)
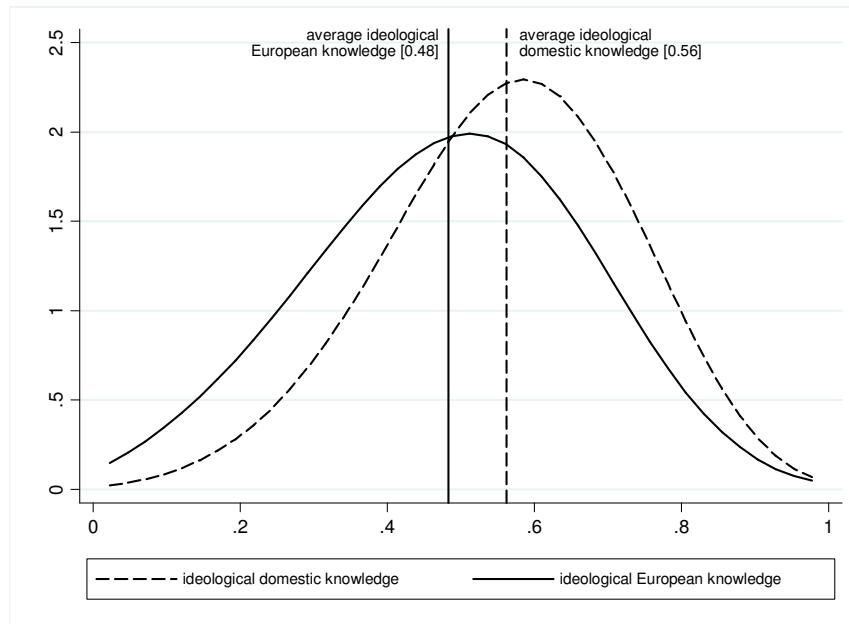
t–test on averages' difference					
	average	std. err.	t–value	p–value	n
domestic level	0.562	0.001			
European level	0.484	0.002			
difference	0.078	0.002	48.38	0.001	12,231

source: EES (2009).

Figure 3.1.3-2 compares the distributions of ideological domestic knowledge and ideological European knowledge. The average ideological knowledge about the domestic left–right continuum (0.56) is significantly higher than the average ideological knowledge on the idea of European integration (0.48), as evidenced by the t–test below the figure. The distributions of ideological domestic knowledge (dashed line) and of ideological European knowledge (solid line) both tend to be slightly left–skewed. This implies that the majority of the voters is quite knowledgeable about both domestic and European ideology. But this left–skewedness tends to be stronger for the domestic than for the European level, expressed by the region between the dashed and the solid line on the right side of the graph. That is, at the upper end of the

ideological knowledge scale, the proportion of voters tends to be higher for ideological domestic knowledge than for ideological European knowledge (iH-1).

To summarize, this section explored the expectation that the voter's political knowledge about the European level is secondary to her political knowledge about the domestic level. The comparisons demonstrated that, as expected, European knowledge tends to be systematically lower than domestic knowledge. To conclude, the voter knows less about the EU political system and less about the idea of European integration than about her domestic political system and the domestic left–right continuum.

3.2 The domestic perspective on the EU

Aware of the secondary nature of European knowledge, I investigate the voter's domestic perspective. The multi–level political structure enables the voter, instead of learning more about the EU, to employ political knowledge acquired on the domestic level as a proxy for the EU. Because of the dominance of domestic actors on the European level and the longer domestic tradition, the voter has the ability to resort to knowledge accumulated by observing politics and political actors in the domestic context. This strategy demonstrates an individual domestic perspective on the EU. To examine this assumption, I develop an individual model of the components of the voter's European knowledge. I expect such knowledge to depend mainly on political knowledge acquired on the domestic level. I express this expectation in two further individual–level hypotheses and test it by regression analysis.

3.2.1 An individual model of European knowledge

To develop a first model of the voter's European knowledge, I briefly introduce the major individual determinants. We know that individual political knowledge depends on the "opportunity, ability, and motivation" (Luskin 1990: 355; see also Bennett 1995; Clawson and Oxley 2013) to become informed. Such ability, deriving for example from the voter's political socialization, creates a basic political understanding. Likewise, the voter's political involvement, for example in terms of her personal political interest, motivates her to improve political knowledge. Finally, the voter's prior stock of political knowledge enhances her capacity to learn more.

Political socialization provides an introduction into the world of politics. It creates a basic political understanding on which the voter can rely to acquire further information, and hence increases her political knowledge (Downs 1957; Lipset 1960; Froman 1961; Greenstein 1961; Campbell et

al. 1964; Converse 1964; Easton 1968; Verba and Nie 1972; Sears 1975; Niemi and Sobieszek 1977; Delli Carpini and Keeter 1996; Dalton 2002; Ohr et al. 2009). In this regard, the research literature has identified three main individual characteristics.

First, the voter's education is a basic stock of knowledge that enables her to learn more. A higher level of education consequently improves political knowledge (Lipset 1960; Converse 1964; Wolfinger and Rosenstone 1980; Neuman 1986; Bennett 1989; Galston 2001; Clawson and Oxley 2013). The second characteristic is the voter's gender, reflecting socialized gender roles: men tend to have greater political knowledge than women (Froman 1961; Greenstein 1961; Converse 1964; Easton 1968; Sears 1975; Milbrath and Goel 1977; Neuman 1986; Bennett 1989; Bennett and Bennett 1989; Verba et al. 1997; Galston 2001; Dalton 2002). Finally, the voter's age is "a measure of individual experience" (Wolfinger and Rosenstone 1980: 102) accumulated over her lifetime. The voter learns about politics and acquires political knowledge by participating, for example in an election (Converse 1964; Neuman 1981, 1986; Zaller 1992; Matsusaka 1995; Dalton 2002; Clawson and Oxley 2013).

In the context of the EU, the voter's accumulation of political experiences over her lifetime is crucial. Bearing in mind that the EU is still a relatively new political system, very many of its citizens have accumulated most of their political experiences outside it, during the time when their own nation–state was not yet an EU member. In other words, the ability to acquire political knowledge depends not only on the voter's age but also on the length of a country's membership of the EU. That is, "joining the EU starts a domestic socialization process, which leads to greater awareness" (Anderson and Kaltenthaler 1996: 177). It creates an ability to participate in EU politics and thus to learn more about the EU, its political system and the idea of European integration (Benz and Stutzer 2004; Hix 2005; Mattila and Raunio 2006).

In other words, the voter's ability to accumulate political experiences of the EU is a matter of her individual duration in the EU, illustrated in Figure 3.2.1. Its abscissa shows the timeline, starting in 1978. Suppose that the voter reaches 18 years of age in 1978, gaining full voting rights in her national election, in France or Great Britain, for example. This voter gains voting rights for the EP in 1979, the year of the first European election, being 19 years of age. Now suppose that our voter is not a citizen of Great Britain or France, but of Spain, joining the European Community in 1986, as represented by the third dashed vertical line in the figure. This means that the voter was already 26 years old when she gained voting rights for the EP. Or suppose that our voter is an Austrian citizen, thus becoming a legal participant in the EU at the age of 36 in 1995. To conclude, the later a country joins the EU, the bigger the discrepancy between reaching the theoretical voting age and actually gaining voting rights for the EP. In short, duration is an individual

characteristic, depending on the voter's age. But it is restricted by the date of her home country's accession to the EU.[34]

Figure 3.2.1: The voter's duration in the EU
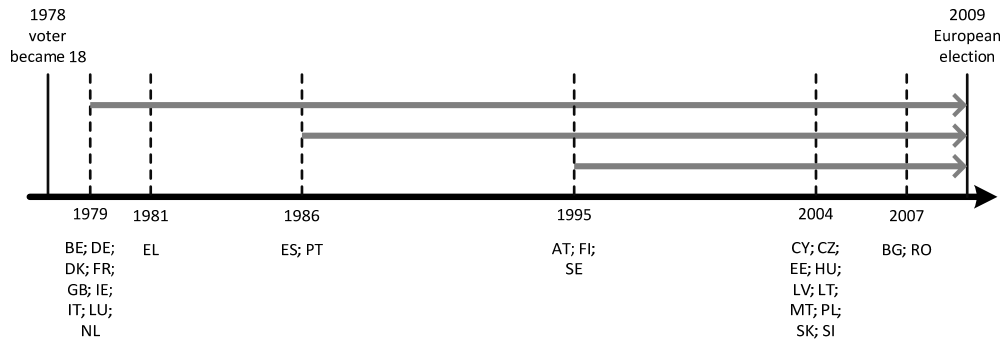
In addition to the voter's political socialization, individual political involvement affects political knowledge, for example in terms of political interest or attention to news in the mass media. The voter's political interest covers the subjective cognition of political relevance.[35] A voter who is interested in politics and who expects politics to be highly relevant is motivated to learn more about it. In short, greater political interest increases political knowledge (Nelson 1977; Zaller 1992; Delli Carpini and Keeter 1996; Galston 2001; Campbell and Winters 2008; Clawson and Oxley 2013).[36] In addition to political interest, the voter's attention to the news in the mass media increases political knowledge. News provides information about politics and thus creates the ability to accumulate political information (Nelson 1976; Becker and Whitney 1980; Tan 1980; Chaffee and Schleuder 1986; Neuman et al. 1992; Zaller 1992; Aarts and Semetko 2003; Ohr et al. 2005; Vreese and Boomgaarden 2006a; Clawson and Oxley 2013).[37]

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34 The definition of the baselines for duration – i.e. reaching the age of 18 to gain the right to vote and 1979, the first year of an election for the EP – has been set for the sake of simplicity, but necessitates a brief note on complicating factors. In the 2009 European election in Austria the voting age was reduced to 16 years. West Germany was a member of the EU from 1979, but the first European election in reunified Germany was in 1994.

35 Political research frequently conflates individual political interest and individual political knowledge into political sophistication, although they are separate components related by "a spiraling process … by which interest leads to greater knowledge which in turn stimulates further interest, and so on" (Neuman 1986: 54; see also Zaller 1992; Wagner 2012; Clawson and Oxley 2013). This "spiraling process" suggests that political interest is not strictly exogenous to political knowledge (Neuman 1986; Luskin 1990; Zaller 1992). Likewise, frequent attention to news increases political knowledge, but political knowledge also affects attention to news (Froman 1961; Lassen 2005; Clawson and Oxley 2013).

36 In the context of the second–order European election, the voter's political interest is assumed to reflect the lower salience of the EU. I therefore rely on the voter's interest in the European election, in the belief that it will provide a fairly accurate picture of the respondent's interest in EU politics. For further details on the individual–level variables, see Appendix A.1.5.

37 In the context of the EU, the positive effect of greater attention to news is crucial. Because of the EU's lower salience, the mass media focus on the domestic level rather than EU politics, thus precluding a

3.2.2   The domestic level and European knowledge

Based on this individual model, my primary aim in this section is to examine the voter's domestic perspective on the EU. Because of the secondary nature of European knowledge, the voter invests little in it, but resorts to political knowledge acquired on the domestic level. The ability to employ such knowledge and to transfer it to the EU depends on the multi–level structure of the domestic and the European level. This means that the voter learns more about politics from the primary domestic level, improving her European knowledge, as discussed next.

The interdependence between the domestic and the European level enables the voter to employ political knowledge, acquired on the domestic level, as a proxy for the EU. The longer domestic tradition means that the voter already has a stock of domestic political knowledge on which she can draw to better understand the EU. In all EU member states, the domestic political system is older than that of the EU. Consequently, a great proportion of voters acquired political knowledge about domestic politics before having any contact with the EU, as shown above in regard to the voter's duration. Because of this longer domestic tradition, the voter's basic political understanding derives from the domestic level. Taking into account that acquiring knowledge is costly, it is rational for the voter to resort to this prior stock of knowledge as a proxy for the EU instead of investing in secondary European knowledge (Anderson 1998; Dalton 2000; Karp et al. 2003; Kritzinger 2003; Hooghe and Marks 2008; Wagner 2012; Clawson and Oxley 2013).

Furthermore, as discussed, domestic actors dominate the EU. The voter learns more about these actors, observing them on the domestic level (Mair 2000; Hix 2005; Mattila and Raunio 2006; Schmitt and Thomasson 2009). She can employ such knowledge, acquired on the domestic level, and transfer it to the European level, improving her European knowledge (Anderson 1998; Karp et al. 2003; Kritzinger 2003).

The ability to resort to such political knowledge acquired on the domestic level implies, first, that the voter can employ domestic knowledge to increase European knowledge. Because of the longer domestic tradition and the dominance of domestic actors in the EU, the voter can "infer from the familiar political system – the nation state – to the unknown European political system" (Wagner 2012: 57). Consequently, my second individual–level hypothesis is:

Domestic knowledge is a primary source of European knowledge (iH-2).

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means of learning more about the latter (Machill et al. 2006; Vreese and Boomgaarden 2006b; Vreese et al. 2006; Wagner 2012).

This second individual–level hypothesis necessitates a caveat in relation to ideological knowledge. According to the orthogonality assumption, discussed in Chapter 2, knowledge about the domestic left–right continuum cannot be directly translated into knowledge about the idea of European integration. But with greater ideological domestic knowledge comes a basic understanding, i.e. a better grasp of other political ideologies, such as the idea of European integration (Anderson 1998; Dalton 2000; Hooghe and Marks 2008; Clawson and Oxley 2013). In other words, ideological domestic knowledge has an explanatory effect on European ideology, improving ideological European knowledge.

Second, the voter can employ one facet of European knowledge to increase the other facet, thanks to "a spiraling back and forth between an increasingly differentiated understanding of the political process and more frequently use of abstract anchoring concepts" (Neuman 1981: 1241). As argued, the voter makes little investment in European knowledge, due to its secondary nature. Instead, she learns more about the EU as a by–product of following domestic politics. For example, the voter acquires ideological European knowledge about domestic actors in the legislative process of implementing EU laws on the domestic level. Observing the same actors on the European level, she can fall back on this ideological European knowledge acquired on the domestic level. It enables her to interpret the actors' ideological behaviour and thus to better understand the political structure of the EU. In short, ideological European knowledge increases factual European knowledge, and vice versa (Downs 1957; Neuman 1986; Zaller 1992; Delli Carpini and Keeter 1996; Gordon and Segura 1997; Clawson and Oxley 2013). More generally, my third individual–level hypothesis predicts that:

One facet of European knowledge increases the other facet (iH-3).

3.2.3   The domestic perspective and European knowledge

To test these two additional individual–level hypotheses, I employ multi–level regression analysis, separately predicting the components of the voter's European knowledge by the individual determinants.[38] A second estimation on factual European knowledge then takes factual domestic knowledge and ideological European knowledge into account. Likewise, the second estimation on ideological European knowledge additionally includes ideological domestic knowledge and factual European knowledge. To examine the second individual–level hypothesis in greater detail, I calculate the standardized regression coefficients, reflecting the strength of effects of domestic knowledge components in the second estimations.

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38 Although the models of the voter's European knowledge components are pure individual–level estimations, multi–level regression analysis is employed. It takes differences between the countries into account, for example in terms of electoral differences, as discussed in detail in Chapter 4.

a)   The domestic perspective and the voter's factual European knowledge

The first column of Table 3.2.3a displays the initial individual model of factual European knowledge.[39] Obviously, all of the individual determinants significantly improve the voter's knowledge of the EU political system. For example, the voter's duration increases her factual European knowledge. A longer individual period in the EU creates the opportunity to participate in EU politics, e.g. in terms of voting for the EP. This raises the voter's factual knowledge about the EU and its political system.

Table 3.2.3a: Multi–level model of the voter's factual European knowledge

dependent variable: factual European knowledge

	Model I coefficient	Model II coefficient	Model II std. coefficient
interest in European election	0.0894***	0.0656***	0.0647***
	(0.0129)	(0.0123)	(0.0121)
attention to news	0.0446***	0.0274***	0.0458***
	(0.0074)	(0.0073)	(0.0122)
education	0.1199***	0.0880***	0.1283***
	(0.0100)	(0.0088)	(0.0128)
gender	0.3349***	0.2525***	0.1358***
	(0.0269)	(0.0243)	(0.0131)
duration	0.0129***	0.0096***	0.1082***
	(0.0014)	(0.0012)	(0.0140)
ideological European knowledge (iH-3)		0.1011*	0.0181*
		(0.0543)	(0.0099)
factual domestic knowledge (iH-2)		0.3077***	0.3021***
		(0.0151)	(0.0148)
constant	0.5865***	0.2936***	0.0063***
	(0.0833)	(0.0707)	(0.0525)
n (micro)	12,231	12,231	
n (macro)	27	27	
R^2 (micro)	0.047	0.163	
variance component (micro)	0.743	0.680	
variance component (macro)	0.085	0.066	
iterations	13	26	

source: EES (2009).
notes: multi–level estimation by HLM 7, with robust standard errors in brackets below coefficients; variance components and R^2 depend on fixed slope model; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided test).

The second and third columns of Table 3.2.3a display the results of the expanded individual model on factual European knowledge, taking the voter's further knowledge components additionally into account. Factual domestic knowledge is a strong and positive determinant of factual European knowledge. Moreover, of all the individual determinants, it is by far the strongest predictor of factual European knowledge as evidenced by its standardized coefficient in the third column of the table. It supports the expectation that domestic knowledge is a primary

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39 Appendix A.2.1a discusses the so–called (random effect) ANOVA–model on factual European knowledge, i.e. an empty model, serving as an initial benchmark for further estimations (Hox 2002; Snijders and Bosker 2004).

source of European knowledge, at least in regard to its factual facet (iH-2). Instead of learning more about the EU, the voter resorts to domestic knowledge to better understand the EU political system.

Likewise, ideological European knowledge has the expected positive effect on factual European knowledge. The reciprocal relationship between factual and ideological knowledge entails that one facet of knowledge increases the other. Greater ideological knowledge about the idea of European integration enables the voter to interpret the actors' ideological behaviour and thus to learn more about the EU and its political system, increasing factual European knowledge (iH-3).

Comparing the estimations, the first model explains about 4.7 % of the variance in factual European knowledge between the voters. In contrast, the second model, including factual domestic as well as ideological European knowledge, explains about 16.3% of this variance. Thus, taking additional knowledge components into account trebles the explanatory power of the model. This highlights the relevance of political knowledge acquired on the domestic level for the voter's understanding of the EU and its political system.

In sum, my results on factual European knowledge show, first, that factual domestic knowledge is by far the strongest predictor for factual European knowledge. That is, knowledge about the domestic political system is the voter's best explanans for the EU political system. Second, ideological European knowledge increases factual European knowledge. It enables the voter to interpret the actors' ideological behaviour and thus to better understand the EU as well as its political system. Overall, these findings support my expectation that, instead of learning more about the EU political system, the voter can resort to political knowledge, acquired on the domestic level, as a proxy for the EU.

b)   The domestic perspective and the voter's ideological European knowledge

Turning to ideological European knowledge, Table 3.2.3b displays the results of the individual model of ideological European knowledge.[40] Its first column controls ideological European knowledge by the individual determinants exclusively, while the second column also takes the additional knowledge components into account. Most interestingly, the voter's duration as well as her political involvement decreases ideological European knowledge. A longer period as a legal participant in the EU as well as greater political interest in the European election and more

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40 Appendix A.2.1a discusses the ANOVA–model of ideological European knowledge.

attention to news decreases the voter's ideological knowledge of the idea of European integration.[41]

Table 3.2.3b: Multi–level model of the voter's ideological European knowledge

dependent variable:	ideological European knowledge		
	Model I	Model II	
	coefficient	coefficient	std. coefficient
interest in European election	− 0.0068***	− 0.0062***	− 0.0345***
	(0.0022)	(0.0019)	(0.0103)
attention to news	− 0.0033***	− 0.0031***	− 0.0292***
	(0.0011)	(0.0011)	(0.0108)
education	0.0130***	0.0069***	0.0561***
	(0.0016)	(0.0014)	(0.0116)
gender	0.0061	0.0001	0.0003
	(0.0038)	(0.0033)	(0.0099)
duration	− 0.0010**	− 0.0008**	− 0.0481**
	(0.0004)	(0.0003)	(0.0215)
factual European knowledge (iH-3)		− 0.0011	− 0.0063
		(0.0017)	(0.0097)
ideological domestic knowledge (iH-2)		0.3573***	0.3008***
		(0.0210)	(0.0177)
constant	0.4735***	0.2965***	− 0.0282***
	(0.0153)	(0.0153)	(0.0507)
n (micro)	12,231	12,231	
n (macro)	27	27	
R^2 (micro)	0.007	0.106	
variance component (micro)	0.025	0.023	
variance component (macro)	0.003	0.002	
iterations	21	24	

source: EES (2009).
notes: multi–level estimation by HLM 7, with robust standard errors in brackets below coefficients; variance components and R^2 depend on fixed slope model; levels of significance: * $p<0.10$, ** $p<0.05$, *** $p<0.01$ (two–sided test).

Ideological domestic knowledge has a strong and positive effect on ideological European knowledge. That is, ideological knowledge about the domestic left–right continuum creates a basis for better understanding other ideologies, such as the idea of European integration. This basic grasp improves ideological European knowledge. Moreover, ideological domestic knowledge turns out to be the strongest predictor of ideological European knowledge, as indicated by its standardized coefficient in the third column of Table 3.2.3b (iH-2).

In contrast, factual European knowledge has no effect on ideological European knowledge, contradicting my third individual–level hypothesis in regard to ideological European knowledge (iH-3). The voter's knowledge about the domestic left–right continuum matters for her knowledge of the idea of European integration, whereas, in contrast, greater factual knowledge

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41 These negative effects of, for example, the voter's political involvement might be due to the lower salience of the EU, which causes, e.g. the mass media to focus mainly on domestic politics. It takes away the possibility of the voter learning more about the EU from the mass media. Moreover, the variable employed on the voter's attention to news is highly left–skewed. According to the data used, most voters follow the news in the media every day (see Appendix A.1.5b).

about the EU political system has no structuring effect, not affecting the voter's ideological European knowledge. Instead, this unexpected finding supports the assumption that the voter acquires most of her political knowledge from the domestic level. As she mainly observes the actors in the domestic context, factual knowledge about the EU is of no relevance for improving ideological European knowledge.

However, including the voter's further knowledge components significantly increases the explanatory power of the individual model of ideological European knowledge. Predicting such ideological knowledge by the individual determinants alone, the model explains about 0.7% of the variance in ideological European knowledge – that is, hardly anything. Taking the voter's further knowledge components into account, the amount of variance explained raises to about 10.6%. In other words, further political knowledge is by far the voter's best explanans for ideological European knowledge.

The findings on ideological European knowledge have two implications. First, ideological domestic knowledge is the primary source of ideological European knowledge. The voter's ideological knowledge of the idea of European integration is mainly derived from ideological knowledge about the domestic left–right continuum. Second, factual European knowledge has no effect on ideological European knowledge. This can be explained by the fact that the voter acquires most of her ideological European knowledge on the domestic level. Hence, factual European knowledge is of no relevance. Overall, this analysis upholds my belief in the voter's domestic perspective on the EU. As she does with factual knowledge, the voter resorts to ideological domestic knowledge to better understand the idea of European integration.

3.2.4 Summary: the domestic perspective on the EU

In this section I investigated how the voter employs a domestic perspective to better understand the EU. Because of the secondary nature of European knowledge, it is rational for her to invest little in it. Instead, the multi–level structure enables the voter to resort to political knowledge acquired on the domestic level. This implies that domestic knowledge increases European knowledge. Moreover, assuming that the voter acquires most of her political knowledge on the domestic level, the two facets of European knowledge increase each other. To demonstrate this expectation about the voter's domestic perspective on the EU, I employed multi–level regression analysis of factual and ideological European knowledge.

My findings show that domestic knowledge is the primary source of European knowledge. Furthermore, greater ideological European knowledge improves factual European knowledge. A better understanding of the actors' ideological behaviour in relation to the idea of European

integration increases the voter's ability to learn more about the EU political system. Overall, the findings support my expectation of a domestic perspective: instead of learning more about the EU, the voter uses her political knowledge acquired on the domestic level to better understand the EU, its political system and the idea of European integration.

3.3   Summary: the voter's domestic perspective on the EU

This section briefly summarizes Chapter 3 and its major findings in regard to my overall research approach. As argued in Chapter 2, electoral participation is an individual behaviour, depending on an individual's decision to cast a ballot for the EP or to abstain from the poll. According to my basic research expectation, electoral differences reduce the voter's understanding of the EU and the European election, decreasing her likelihood of participating in this election. Assuming that this lower understanding is primarily a matter of the voter's political knowledge, I explored European knowledge and the voter's domestic perspective on the EU. Because of the EU's lower salience, European knowledge is secondary, compared to domestic knowledge. Consequently, the voter invests little in this secondary political knowledge, but instead resorts to knowledge acquired on the domestic level.

Investigating the various knowledge components of the voter, Chapter 3 demonstrated my expectation of a domestic perspective. Figure 3.3 illustrates the voter's factual knowledge on the right–hand side and ideological knowledge on the left–hand side. The upper part of the figure refers to the domestic level, while the lower part shows the European knowledge components. As we can see, both factual and ideological domestic knowledge improve the voter's European knowledge. In addition, ideological European knowledge positively affects her factual European knowledge.

Figure 3.3: The voter's domestic perspective on the EU
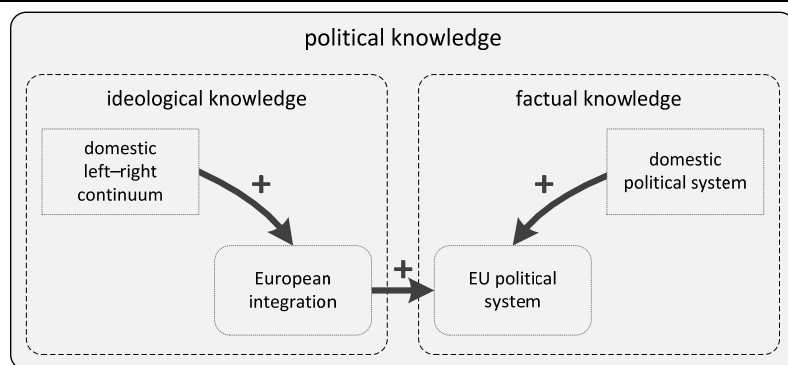
These findings have two implications. First of all, taking into account that political knowledge mobilizes the voter to participate in an election, lower European knowledge indicates that she is less likely to cast a ballot for the EP, irrespective of electoral differences. Second, instead of becoming better informed about the EU, the voter employs a domestic perspective. She resorts to political knowledge acquired on the domestic level. But when the political systems as well as the underlying political ideologies of the domestic and the European level differ from each other, this domestic perspective fails. That is, in the context of electoral differences, the voter's reliance on political knowledge acquired on the domestic level is less useful for understanding the EU, as I will show in my next Chapter 4.

4. Electoral differences and the voter's European knowledge

Chapter 4 investigates the effects of electoral differences on the voter's political knowledge. Electoral differences cause the voter's domestic perspective on the EU to fail, owing to inappropriate reliance on further political knowledge, acquired on the domestic level. In this context, I re-examine the four country–level hypotheses expressed in Chapter 2 and relate them to European knowledge. I discuss how electoral differences in the formal rules reduce the voter's factual knowledge of the EU political system. Similarly, I examine the negative influences of electoral differences in the vote options on the voter's ideological knowledge of the idea of European integration. To test the expectation of a failed domestic perspective, I employ multi–level regression estimation, expanding the individual models of Chapter 3 by the electoral differences introduced in Chapter 2.

As shown in Chapter 3, European knowledge is secondary to domestic knowledge, due to the EU's lower salience. As a consequence, the voter makes little investment in European knowledge. Instead, the multi–level structure enables her to employ a domestic perspective, resorting to political knowledge acquired on the domestic level to better understand the EU. Based on this domestic perspective, Chapter 4 investigates the effects of electoral differences on the voter's European knowledge. According to the first part of my research expectation, electoral differences reduce the voter's understanding of the EU, causing the domestic perspective to fail.

The first section of this chapter therefore reinvestigates the four country–level hypotheses introduced in Chapter 2, now putting them in the context of political knowledge. It examines the negative effects of electoral differences in the formal rules on factual European knowledge and of electoral differences in the vote options on ideological European knowledge. In the second section, I then examine inappropriate reliance on further political knowledge, acquired on the domestic level, for learning more about the EU. To test the expectation of a failed domestic perspective, I employ multi–level regression analysis, based on the individual model of Chapter 3 and the four measurements on electoral differences introduced in Chapter 2.

4.1 Electoral differences and lower European knowledge

I start by looking at the direct effects of electoral differences on European knowledge, without taking into account the ability to resort to further political knowledge acquired on the domestic

level. According to my research expectation, electoral differences reduce the voter's understanding of the EU. As shown in Chapter 3, the voter employs a domestic perspective on it. But this perspective fails when electoral differences exist. They cause a misleading perception of the EU – and the European election – reducing the voter's ability to improve her European knowledge.

4.1.1 Electoral differences in the formal rules and factual European knowledge

To examine this expectation, I discuss the effects of electoral differences in the formal rules on the voter's factual European knowledge. I reinvestigate the first two country–level hypotheses, relating them to factual knowledge about the EU political system and test these two modified country–level hypotheses, employing regression analysis. In Section 4.1.2, I turn to the effects of differences in the vote options on ideological European knowledge.

a) The direct effects of electoral differences in the formal rules

Factual knowledge covers information about the political system, such as the formal rules of its elections. Factual knowledge about the EU includes, for example, information about the ballot formula used in the European election or about the voter's European electoral district. However, in Chapter 3 I showed that instead of learning more about the EU and its electoral rules, the voter employs a domestic perspective on it. But when there are electoral differences in the formal rules, this domestic perspective fails and consequently factual European knowledge is systematically lower.

This expectation first of all implies that a distinct formula decreases the voter's factual European knowledge. Replacing a national mixed or majoritarian formula by a proportional one for the EP increases the relevance of parties in the European election and produces more indirect representation of the voter in the EP. The domestic perspective is inappropriate to explain such consequences of a distinct formula, because it derives from different electoral rules, where parties are less important and the representation of the voter in parliament is more direct. In addition, the secondary nature of European knowledge means that the voter does not invest in factual knowledge about the formal rules of the European election. Instead, she remains less informed, reducing her ability to learn more about the EU. Hence my modified first country–level hypothesis is:

A distinct formula reduces the voter's factual European knowledge (modified cH-1).

Second, a higher district magnitude reduces factual European knowledge. Larger district magnitudes in the European election imply a higher number of contesting actors in a European

electoral district. The voter is less familiar with these actors. Her domestic perspective fails to provide information about the bigger European electoral district, because it derives from the smaller national district with fewer contesting actors. Consequently, the voter would need further information, but European knowledge's secondary nature means that it is not rational to invest effort in acquiring it. So the voter is less informed about the EU and less willing to improve her factual knowledge about its political system. My modified second country–level hypothesis is thus:

> *A higher magnitude reduces the voter's factual European knowledge* (modified cH-2).

b) Electoral differences in the formal rules and factual European knowledge

To test these first two modified country–level hypotheses, I employ multi–level regression analysis. Based on the individual model of factual European knowledge in Chapter 3, the following estimation is expanded by the two electoral differences in the formal rules introduced in Chapter 2. But before estimating this multi–level regression model, I briefly examine both hypotheses in a cross–national comparison of average factual European knowledge by both a distinct formula and a higher magnitude.

According to the modified first and second country–level hypotheses, average factual European knowledge is bound to be systematically lower in countries with a distinct formula or a higher magnitude. Overall, this average factual European knowledge on the country level is about 1.76, varying between 1.33 in Great Britain and 2.24 in Slovenia. Figure 4.1.1b-1 illustrates its distribution by a distinct formula. The figure lists countries with a similar formula in the upper part (light grey bars) and countries with a distinct formula in its lower part (dark grey bars). As illustrated by the dotted vertical lines, the mean of average factual European knowledge among the six countries with a distinct formula is lower (1.61) than the mean of countries with a similar formula (1.81). However, within the group of countries with a similar formula, average factual European knowledge has a wide spread, ranging between Italy (1.39) and Slovenia (2.24). In the group of countries with a distinct formula, France (1.88) and Germany (1.83) stand out, having a comparatively high average factual European knowledge, outstripping the overall mean. In sum, Figure 4.1.1b-1 suggests that average factual European knowledge tends to be lower in countries with a distinct formula (modified cH-1). But due to the wide range in both groups of countries, this finding should be treated with caution.

Figure 4.1.1b-1: Average factual European knowledge by a distinct formula (modified cH-1)
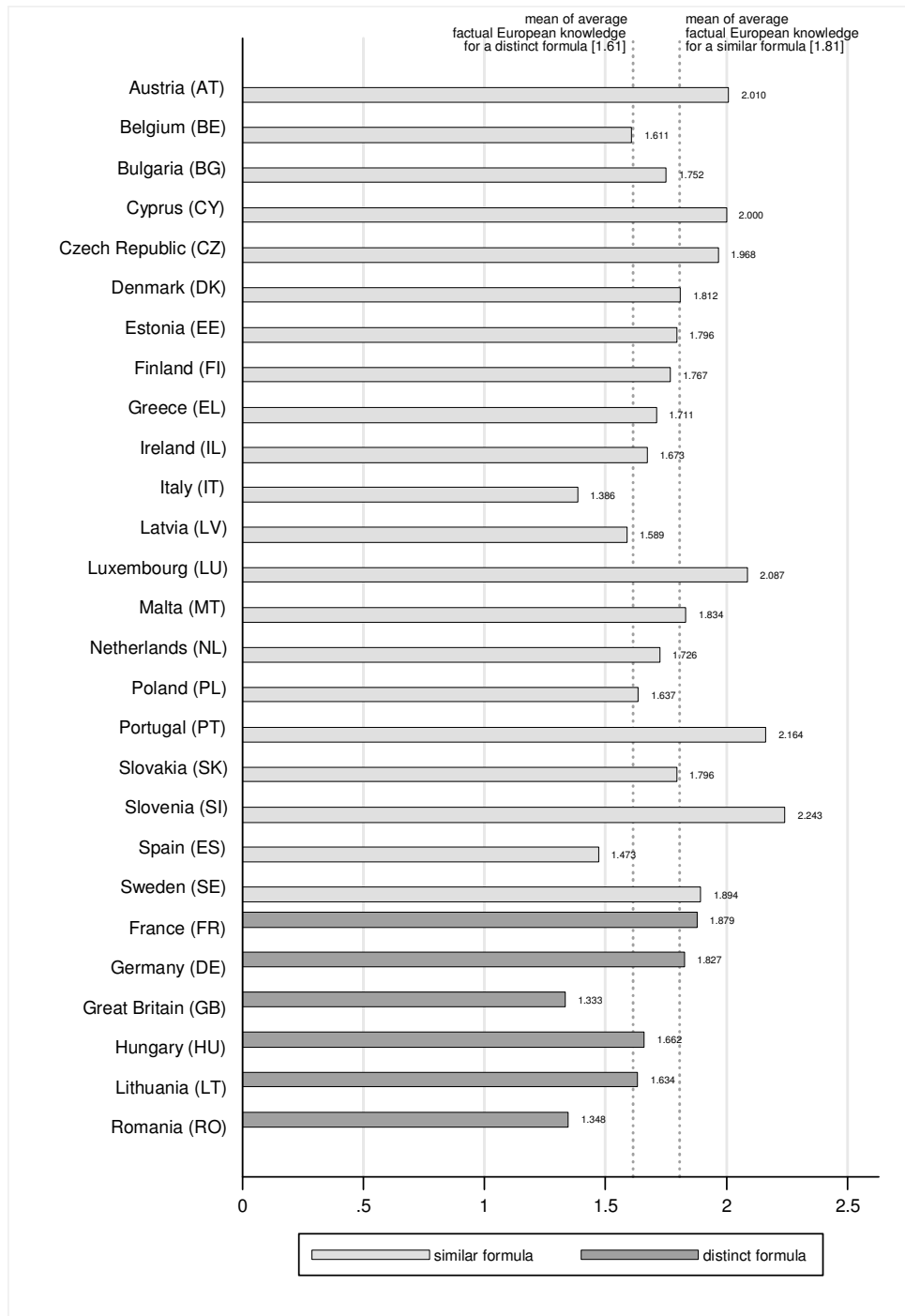
sources: average factual European knowledge: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002).

Figure 4.1.1b-2 illustrates average factual European knowledge (ordinate) by a higher magnitude (abscissa). According to the displayed correlation line (– 0.40), average factual European knowledge decreases with a higher magnitude, as expected. Italy is an exception, with remarkably low average factual European knowledge, although its district magnitude tends to be somewhat smaller in the European than the national election. Romania (1.35) and Great Britain (1.33) stand out, having the lowest average factual European knowledge of all the countries. But given their significantly higher district magnitude in the European election, this lower average European knowledge is in line with my modified second country–level hypothesis. However, although Romania and Great Britain support my expectation, these two countries distort the results. If we exclude them, the correlation between a higher magnitude and average factual European knowledge is much lower (– 0.06), as illustrated by the dashed line. So, in fact, the distribution barely supports the expectation that a higher district magnitude reduces factual knowledge of the EU political system (modified cH-2).

Figure 4.1.1b-2: Average factual European knowledge by a higher magnitude
(modified cH-2)

To conclude, the cross–national comparisons of average factual European knowledge by a distinct formula as well as by a higher magnitude shows some support of my expectation that electoral differences in the formal rules reduce the voter's European knowledge. To provide further evidence, I estimate a multi–level regression model on factual European knowledge, shown in Table 4.1.1b. Obviously, neither a distinct formula (modified cH-1) nor a higher

magnitude (modified cH-2) has an effect on factual European knowledge, as indicated by their insignificant coefficients. This contradicts my expectation that electoral differences in the formal rules reduce the voter's factual knowledge about the EU and its political system. For example, replacing the national ballot formula by a distinct one for the EP affects the European election. But although the parties are more relevant and the voter's representation is more indirect, such consequences of a distinct formula do not reduce factual European knowledge. Likewise, a higher magnitude, increasing the number of contesting actors in the European electoral district, has no influence on the voter's factual knowledge of the EU political system.

Table 4.1.1b: Multi–level model of the voter's factual European knowledge and electoral differences in the formal rules

dependent variable: factual European knowledge	
interest in European election	0.0657***
	(0.0122)
attention to news	0.0272***
	(0.0073)
education	0.0881***
	(0.0088)
gender	0.2528***
	(0.0244)
duration	0.0096***
	(0.0012)
ideological European knowledge	0.0998*
	(0.0543)
factual domestic knowledge	0.3074***
	(0.0151)
constant	0.3336***
	(0.0755)
distinct formula (modified cH-1)	− 0.1089
	(0.1005)
higher magnitude (modified cH-2)	− 0.0404
	(0.0266)
n (micro)	12,231
n (macro)	27
R^2 (micro)	0.142
R^2 (macro)	0.252
variance component (micro)	0.680
variance component (macro)	0.065
iterations	26

sources: individual–level data: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011).

notes: multi–level estimation by HLM 7, with robust standard errors in brackets below coefficients; variance components and R^2 depend on fixed slope model; levels of significance: * $p<0.10$, ** $p<0.05$, *** $p<0.01$ (two–sided test).

Overall, the findings of the descriptive comparisons of average factual European knowledge and the multi–level analysis of factual European knowledge are ambiguous. On the one hand, the cross–national comparisons tend to support my modified country–level hypotheses on electoral differences in the formal rules. On the other hand, the regression analysis denies any systematic

effect of such differences on the voter's factual knowledge of the EU political system. However, these missing effects in the regression estimation might be due to the voter's resort to further knowledge components, overlying the expected decreasing influences of a distinct formula and a higher magnitude on factual European knowledge, as I will show in Section 4.2.

4.1.2 Electoral differences in the vote options and ideological European knowledge

Complementing my examination of electoral differences in the formal rules and factual European knowledge, I assess the effects of differences in the vote options on ideological European knowledge. As before, I expect electoral differences in the vote options to reduce the voter's ideological knowledge about the idea of European integration. To examine this expectation, I modify the third and fourth country–level hypotheses in regard to ideological European knowledge and test them.

a) The direct effects of electoral differences in the vote options

Electoral differences in the vote options reduce ideological European knowledge. As discussed, ideological European knowledge covers information about the idea of European integration. It increases the voter's awareness of her political preferences and enables her to find the actor that best represents these preferences in the EP. But employing a domestic perspective fails to improve ideological knowledge of the idea of European integration when electoral differences in the vote options exist.

For example, a higher number of vote options in the European election implies that some of the contesting parties are not represented in the national parliament. Such additional parties are less visible on the domestic level. The voter's domestic perspective fails to provide information about them and investing in further ideological European knowledge is not rational for the voter, due to its secondary nature. Instead, she remains more or less uninformed about the additional vote options in the European election. This decreases the voter's ability to learn more about European integration, e.g. by following the election campaign. Accordingly, my modified third country–level hypothesis is:

Greater fragmentation reduces the voter's ideological European knowledge (modified cH-3).

Similarly, lower polarization reduces ideological European knowledge, due to the failure of the voter's domestic perspective on the EU. As argued, there is less diversity on European integration because most of the domestic actors are quite supportive of it. This supportiveness results in a lack of competition among the actors on European ideology, reducing its visibility, for example in the election campaign. Employing a domestic perspective, based on the more contested

domestic ideology, the actors' low competitiveness on the idea of European integration suggests that beside an ongoing integration process European ideology does not provide any further alternatives. In short, the low diversity, resulting in little competition, reduces the voter's ability to learn more about European integration, as expected by my modified fourth country–level hypothesis:

Lower polarization reduces the voter's ideological European knowledge (modified cH-4).

b)   Electoral differences in the vote options and ideological European knowledge

To demonstrate these two modified country–level hypotheses, I start with a descriptive comparison of average ideological European knowledge by greater fragmentation and by lower polarization. Afterwards I employ multi–level regression estimation, combining the individual model on ideological European knowledge from Chapter 3 with the two electoral differences in the vote options introduced in Chapter 2.

Figure 4.1.2b-1:   Average ideological European knowledge by greater fragmentation
(modified cH-3)
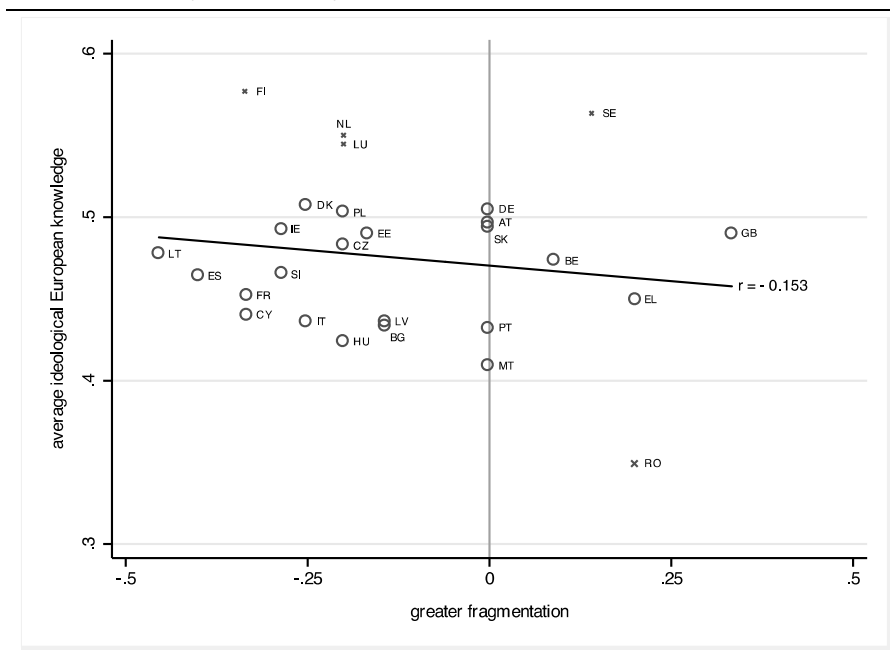
Overall, average ideological European knowledge on the country level is about 0.48, ranging between 0.35 in Romania and 0.58 in Finland. Figure 4.1.2b-1 illustrates the distribution of average ideological European knowledge (ordinate) by greater fragmentation (abscissa). According to the negative slope of the correlation line (– 0.15), ideological knowledge about the

idea of European integration tends to decrease with a higher number of vote options, as expected. But the figure reveals some exceptions. On the upper right side, Sweden has a comparably high average ideological European knowledge (0.56), despite having somewhat greater fragmentation in the European than in the national election. Meanwhile, Romania, located on the lower right side, is an outlier, due to its comparably low average ideological European knowledge. But its greater fragmentation brings its low average ideological European knowledge into line with my modified third country–level hypothesis. In sum, the cross–national comparison supports the expectation that the higher number of vote options in the European election causes lower ideological European knowledge, at least on the country level (modified cH-3).

Figure 4.1.2b-2: Average ideological European knowledge by lower polarization (modified cH-4)
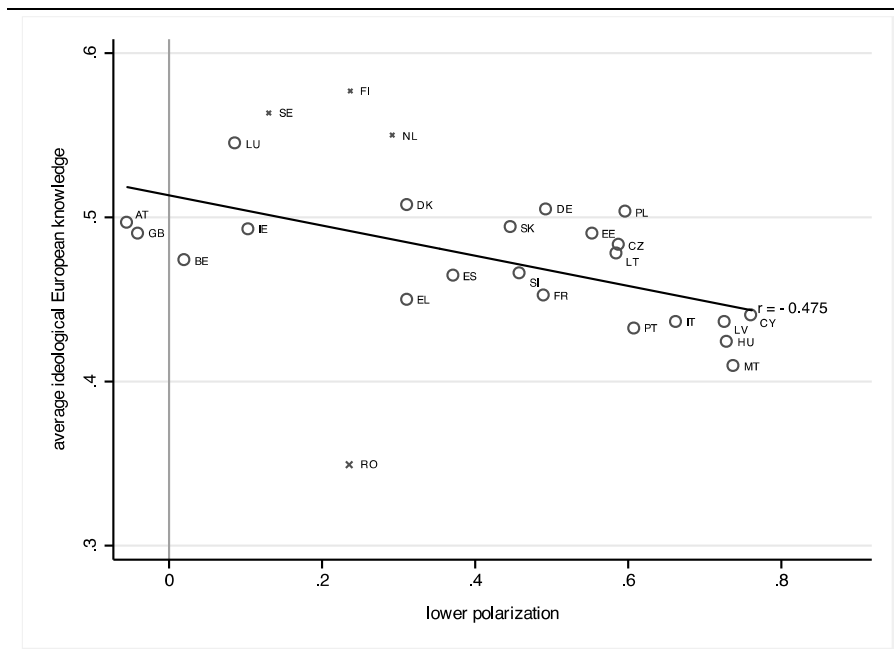
As with greater fragmentation, Figure 4.1.2b-2 illustrates the distribution of average ideological European knowledge (ordinate) by lower polarization (abscissa). The slope of the correlation line (– 0.48) demonstrates a negative relationship between the actors' lower diversity on European ideology and ideological knowledge about it, at least on the country level. Countries with moderately low polarization, like Finland, the Netherlands or Sweden, have a relatively high average ideological European knowledge, as shown in the upper left part of the figure. In contrast, countries with very low polarization also have comparatively low average ideological

European knowledge, for example Hungary (0.42) or Malta (0.41).[42] In sum, Figure 4.1.2b-2 supports my modified fourth country–level hypothesis: lower polarization reduces ideological European knowledge (modified cH-4).

Overall, the descriptive comparisons support the expectation that electoral differences in the vote options reduce ideological European knowledge. To further demonstrate this finding, multi–level regression analysis controls for the effects of greater fragmentation and lower polarization on the voter's ideological European knowledge, as shown in Table 4.1.2b. The coefficient of greater fragmentation on the model's intercept is significantly negative, indicating a reducing effect on ideological European knowledge (modified cH-3). The higher number of vote options in the European election means that some of the parties are not represented in the national

Table 4.1.2b: Multi–level model of the voter's ideological European knowledge and electoral differences in the vote options

dependent variable: ideological European knowledge	
interest in European election	− 0.0062***
	(0.0019)
attention to news	− 0.0031***
	(0.0011)
education	0.0068***
	(0.0014)
gender	− 0.0000
	(0.0033)
duration	− 0.0009***
	(0.0003)
factual European knowledge	− 0.0010
	(0.0017)
ideological domestic knowledge	0.3579***
	(0.0210)
constant	0.3515***
	(0.0213)
greater fragmentation (modified cH-3)	− 0.0882**
	(0.0339)
lower polarization (modified cH-4)	− 0.1545***
	(0.0184)
n (micro)	12,231
n (macro)	27
R^2 (micro)	0.042
R^2 (macro)	0.547
variance component (micro)	0.023
variance component (macro)	0.001
iterations	21

sources: individual–level data and lower polarization: EES (2009); greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.

notes: multi–level estimation by HLM 7, with robust standard errors in brackets below coefficients; variance components and R^2 depend on fixed slope model; levels of significance: * $p<0.10$, ** $p<0.05$, *** $p<0.01$ (two–sided test).

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42 Once again, Romania stands out, due to its low average ideological European knowledge, as discussed above.

parliament and are thus less visible on the domestic level. The voter's domestic perspective fails, unable to provide information about such additional vote options. As a consequence, ideological knowledge about the idea of European integration is systematically lower.

Likewise, the coefficient of lower polarization is significantly negative. It demonstrates the expectation that actors' lower diversity on European integration than on the domestic left–right continuum reduces the voter's ideological European knowledge (modified cH-4). As argued, most of the domestic actors are quite supportive of the European integration process. The consequent lack of competition among them reduces the visibility of European ideology. Instead, the voter's domestic perspective suggests that the idea of European integration does not provide any political alternatives beside an ongoing integration process. This decreases the voter's ideological European knowledge.

In sum, the findings on electoral differences in the vote options support my expectation. Greater fragmentation and lower polarization both reduce ideological European knowledge. A higher number of vote options means that the voter knows less about the additional parties in the European election as well as about their ideological behaviour. Likewise, lower polarization reduces the visibility of the idea of European integration. Such consequences of electoral differences in the vote options reduce the voter's knowledge about the EU and its ideology. However, as argued in the context of factual European knowledge, I expect that the negative effects of electoral differences on ideological European knowledge stem from the failed reliance on further political knowledge, rather than from the direct influences examined in this section.

4.2   Electoral differences and the voter's further political knowledge

As I indicated, my primary aim in this chapter is to examine the failure of the domestic perspective caused by an inappropriate reliance on political knowledge acquired on the domestic level. Therefore this section investigates the voter's reduced ability to employ further political knowledge to improve her European knowledge. Following the structure of the previous section, I start by examining the inappropriate reliance on the voter's further knowledge components for factual European knowledge, and then I look at ideological European knowledge.

4.2.1   The indirect effects of electoral differences in the formal rules

The multi–level regression analysis above offers little support for my expectation that a distinct formula or a higher magnitude reduce factual European knowledge. However, I consider the negative effects of electoral differences in the formal rules to result predominantly from the

failure of resorting to political knowledge acquired on the domestic level. Because of electoral differences, the voter's further political knowledge is less useful for learning more about the EU and its political system, deriving as it does from a different political level. To examine this proposition, I investigate the effects of differences in the formal rules on the ability to resort to factual domestic knowledge as well as to ideological European knowledge. In this context, I express four cross–level hypotheses and test them, expanding the previous multi–level regression model on factual European knowledge by the corresponding cross–level interaction terms.

a)   The indirect effects of electoral differences in the formal rules

Electoral differences in the formal rules reduce the voter's ability to resort to political knowledge acquired on the domestic level. The domestic level is different from the European one, and so information adopted in the domestic context is less useful for learning more about the EU and its political system. In other words, the positive effects of factual domestic and ideological European knowledge on factual European knowledge are systematically weaker, due to a distinct formula and a higher magnitude.

First, in the context of electoral differences in the formal rules, factual domestic knowledge is less useful for increasing factual European knowledge. As Chapter 3 showed, the voter's factual knowledge of the EU political system primarily depends on factual knowledge of the domestic political system. But electoral differences in the formal rules render domestic knowledge irrelevant and cause resorting to it to fail.

This expectation implies that a distinct formula reduces the ability to resort to factual domestic knowledge to learn more about the EU political system. Knowledge of the domestic political system and the national electoral rules is less useful for explaining the distinct European formula and its consequences for the electoral event. Depending on the national formula, factual domestic knowledge highlights the differences in the European formula. But it does not provide information, for example, about the greater relevance of parties and the more indirect representation of the voter in the EP. In other words, a distinct formula prevents factual knowledge about the domestic political system from improving factual knowledge about the EU political system, as expected by my first cross–level hypothesis:

A distinct formula weakens the positive effect of the voter's factual domestic knowledge on factual European knowledge (clH-1).

Likewise, a higher magnitude reduces the ability to resort to factual domestic knowledge. A higher magnitude increases the number of contesting actors in the voter's European electoral

district. Factual knowledge about her domestic electoral rules comes from a smaller electoral district with fewer actors. It is thus less useful for explaining the higher number of contesting actors in the electoral district of the European election. In other words, a higher magnitude reduces the positive influence of greater factual knowledge about the domestic political system on the voter's factual knowledge about the EU political system. Consequently, my second cross–level hypothesis is:

> *A higher magnitude weakens the positive effect of the voter's factual domestic knowledge on factual European knowledge* (clH-2).

Second, ideological European knowledge improves the voter's factual knowledge of the EU political system, as shown in Chapter 3. But because the voter acquires most of such ideological knowledge about the idea of European integration by observing the actors on the domestic level, ideological European knowledge is less useful for interpreting the actors' ideological behaviour on the European level. That is, although the actors' ideological behaviour is in the EU context, the voter sees it through the lens of the domestic political system, which differs from the EU one.

A distinct formula, for example, reduces the voter's ability to employ ideological European knowledge to improve factual European knowledge. As discussed, the distinct formula increases the relevance of parties to the disadvantage of candidates in the European election. The voter is more familiar with the ideological behaviour of the candidates that she observes on the domestic level. But this is less helpful for understanding the parties' ideological behaviour. As a consequence, ideological European knowledge is inadequate for interpreting the parties' behaviour on the European level and thus for learning more about the EU political system. In short, a distinct formula renders ideological knowledge of the idea of European integration less appropriate for improving the voter's factual knowledge about the EU political system, as indicated by my third cross–level hypothesis:

> *A distinct formula weakens the positive effect of the voter's ideological European knowledge on factual European knowledge* (clH-3).

Similarly, a higher magnitude reduces the voter's ability to resort to ideological European knowledge. Acquiring most ideological knowledge of the idea of European integration by observing fewer actors in the smaller national electoral district, the voter is less familiar with a higher number of actors in the European electoral district as well as with their ideological behaviour. This hampers her ability to interpret the actors' behaviour on European integration and thus to learn more about the EU political system. In other words, a higher magnitude causes ideological knowledge of the idea of European integration to be less useful for improving factual knowledge about the EU political system, as expected by my fourth cross–level hypothesis:

A higher magnitude weakens the positive effect of the voter's ideological European knowledge on factual European knowledge (clH-4).

b) Electoral differences in the formal rules and the voter's further political knowledge

To test these four cross–level hypotheses, the previous multi–level model of factual European knowledge is expanded by the corresponding cross–level interaction terms, shown in Table 4.2.1b.[43] Taking these cross–level interactions into account, the effect of ideological European knowledge increases remarkably. This implies that the voter's ideological knowledge of the idea of European integration is more useful for improving her factual European knowledge if no electoral differences in the formal rules exist. In the first instance, this finding supports the expectation that electoral differences in the formal rules reduce the ability to resort to ideological European knowledge. In contrast, the coefficient of factual domestic knowledge differs only marginally from the previous estimate, despite controlling for a distinct formula and a higher magnitude.

Moreover, electoral differences in the formal rules do not affect factual domestic knowledge. First, a distinct formula has no influence on the voter's ability to resort to factual domestic knowledge (clH-1). Replacing the national ballot formula by a distinct one for the EP increases the relevance of parties in the European election and causes a more indirect representation of the voter. But such consequences of a distinct formula do not reduce the utility of factual knowledge about the domestic political system and the formal rules of the national election in improving the voter's factual knowledge about the EU political system. Second, a higher magnitude has no effect on factual domestic knowledge (clH-2). That is, factual knowledge about the domestic political system remains a stable source for improving the voter's factual knowledge about the EU political system, even though the number of actors in her European electoral district is higher than in the national district.

In sum, electoral differences in the formal rules do not prevent the voter from resorting to factual domestic knowledge. Neither a distinct formula nor a higher magnitude reduces the positive influence of factual knowledge about the domestic political system on factual knowledge about the EU political system. This finding contradicts my expectation that electoral differences in the formal rules render factual domestic knowledge less useful for improving factual European knowledge. Although the domestic political system differs from the European one, the voter is

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43 For a discussion of random slopes, i.e. individual–level coefficients that vary between the EU member states (Hox 2002; Snijders and Bosker 2004), in the final estimation on factual European knowledge, see Appendix A.2.1c.

still able to employ factual domestic knowledge to learn more about the EU and its political system.[44]

Table 4.2.1b: Multi–level model of the voter's factual European knowledge and resorting to political knowledge

dependent variable: factual European knowledge	
interest in European election	0.0658***
	(0.0122)
attention to news	0.0274***
	(0.0073)
education	0.0877***
	(0.0088)
gender	0.2530***
	(0.0246)
duration	0.0097***
	(0.0012)
ideological European knowledge	0.1553***
	(0.0565)
distinct formula (clH-3)	− 0.3783***
	(0.1209)
higher magnitude (clH-4)	0.0700
	(0.0428)
factual domestic knowledge	0.3014***
	(0.0184)
distinct formula (clH-1)	0.0344
	(0.0381)
higher magnitude (clH-2)	− 0.0047
	(0.0092)
Constant	0.3167***
	(0.0775)
distinct formula (modified cH-1)	0.0085
	(0.1021)
higher magnitude (modified cH-2)	− 0.0657**
	(0.0273)
n (micro)	12,231
n (macro)	27
R^2 (micro)	0.141
R^2 (macro)	0.255
variance component (micro)	0.680
variance component (macro)	0.066
iterations	16

sources: individual–level data: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011).

notes: multi–level estimation by HLM 7, with robust standard errors in brackets below coefficients; variance components and R^2 depend on fixed slope model; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided test).

Turning to the cross–level interactions between the two electoral differences in the formal rules and ideological European knowledge, a distinct formula weakens the positive influence of greater ideological knowledge of the idea of European integration, as shown in Table 4.2.1b (clH-3).

44 To control for a potential overlap of effects, the model in Table 4.2.1b was replicated separately for cross–level interactions of the electoral differences with factual domestic knowledge and with ideological European knowledge. However, these two further models do not yield any noteworthy additional results (see Appendix A.2.1b).

Replacing the national ballot formula by a distinct one for the EP increases the relevance of parties and causes a more indirect representation. Assuming that the voter acquires most ideological European knowledge on the domestic level, this knowledge derives from the candidate–centred domestic political system and its national electoral rules. As a consequence, such ideological European knowledge is less useful for interpreting the parties' ideological behaviour, reducing the voter's ability to learn more about the EU political system.

Figure 4.2.1b: The conditional effect of ideological European knowledge on factual European knowledge by a distinct formula (clH-3)
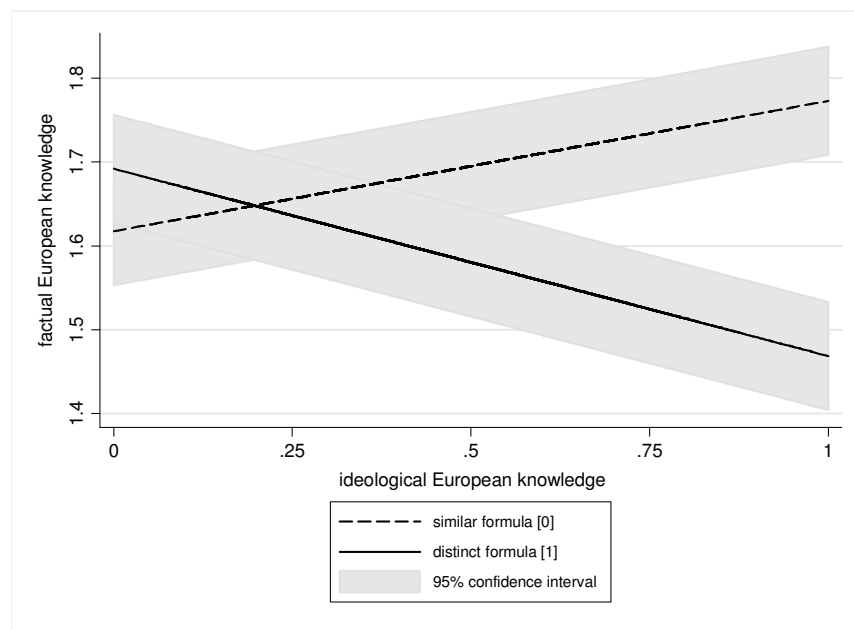
sources: individual–level data: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002).
model: predicted factual European knowledge according to the estimates displayed in Table 4.2.1b,
          for a female mean voter in a country with an equal magnitude [0].

In fact, the negative effect of a distinct formula on ideological European knowledge exceeds its positive influence. Figure 4.2.1b displays the conditional effect of ideological European knowledge (abscissa) on factual European knowledge (ordinate), separately for countries with a similar formula (dashed line) and a distinct formula (solid line). Obviously, there is no difference in the ability to resort to ideological European knowledge if this knowledge is low, as visualized by the overlapping confidence intervals (light grey regions) on the left side of the figure. Increasing ideological European knowledge increases factual European knowledge in countries with a similar formula, as indicated by the positive slope of the dashed line. In contrast, the slope of the solid line is negative. This implies that when there is a distinct formula, greater ideological European knowledge reduces the voter's factual European knowledge. Better ideological knowledge of the idea of European integration impedes interpretation of the parties' ideological

behaviour on the European level. This decreases the ability to improve factual knowledge about the EU political system.

Finally, a higher magnitude has no influence on ideological European knowledge, as shown by the insignificant coefficient in Table 4.2.1b. This contradicts my fourth cross–level hypothesis (clH-4). The voter accumulates most of her knowledge of European ideology by observing the actors on the domestic level, in a smaller national electoral district. But the higher number of actors in her European electoral district has no effect on the ability to employ ideological knowledge of the idea of European integration. Instead, controlling for cross–level interactions, the coefficient of a higher magnitude on the model's intercept becomes significantly negative. This demonstrates my modified second country–level hypothesis, expressed in Section 4.1 above. The voter is indeed less familiar with the higher number of contesting actors in the European electoral district, consequent upon a higher magnitude. Hence her factual knowledge about the EU political system is systematically lower, which is not compensated for by the voter's further political knowledge.

In sum, the voter's ability to resort to ideological European knowledge is lower, due to electoral differences in the formal rules. At the least, a distinct formula causes the voter to be misled. Because of the greater relevance of parties and less direct representation, better ideological knowledge of the idea of European integration prevents the voter from interpreting the parties' behaviour on the European level and thus from improving her factual European knowledge. In addition, a higher magnitude reduces the voter's factual knowledge about the EU political system, controlling for her ability to resort to further political knowledge. To conclude, factual European knowledge is systematically lower due to electoral differences in the formal rules, as expected.

4.2.2   The indirect effects of electoral differences in the vote options

The analysis of greater fragmentation and lower polarization above demonstrated the idea that such differences in the vote options reduce ideological European knowledge. But my primary expectation is that these negative effects of electoral differences in the vote options mainly stem from the failure of resorting to ideological domestic knowledge. Because of greater fragmentation and lower polarization, the voter's ability to employ ideological knowledge about the domestic left–right continuum is systematically lower. In this context, I express two further cross–level hypotheses and test them, including corresponding cross–level interaction terms in the former multi–level estimation on the voter's ideological European knowledge.

a)   The indirect effects of electoral differences in the vote options

Electoral differences in the vote options reduce the ability to resort to ideological domestic knowledge. As discussed in Chapter 2, the domestic left–right continuum and the idea of European integration are orthogonally related. That is, knowledge about one of these two ideologies cannot be directly transferred into knowledge about the other. However, as shown in Chapter 3, knowledge about domestic ideology creates a basic grasp for a better understanding of other political ideologies. It is thus a primary source for the voter's ideological knowledge about the idea of European integration. But electoral differences in the vote options reduce the ability to resort to this basic grasp. That is, the positive influence of ideological domestic knowledge on ideological European knowledge is systematically lower, due to greater fragmentation and lower polarization.

First, greater fragmentation reduces the ability to resort to ideological domestic knowledge. The higher number of vote options in the European election implies that some of the parties in the European election are not represented in the national parliament. These parties are less visible on the domestic level, which reduces the voter's familiarity with their ideological behaviour on the European level as well as domestically. Lacking ideological knowledge of the parties' behaviour on the domestic left–right continuum reduces the voter's ability to resort to ideological domestic knowledge to learn more about European integration. Consequently, my fifth cross–level hypothesis expects that:

Greater fragmentation weakens the positive effect of the voter's ideological domestic knowledge on ideological European knowledge (clH-5).

Second, lower polarization reduces the voter's ability to employ ideological domestic knowledge. The actors' lower diversity on European integration than on the domestic left–right continuum reduces the utility of the voter's basic grasp on ideologies. This grasp derives from the greater competition among actors on domestic ideology. Employing it to learn more about European integration suggests that European ideology lacks any alternative to an ongoing integration process, supported by most of the domestic actors. In other words, ideological domestic knowledge, stemming from higher diversity, is less useful for improving the voter's ideological knowledge about the less contested idea of European integration. My sixth cross–level hypothesis is thus:

Lower polarization weakens the positive effect of the voter's ideological domestic knowledge on ideological European knowledge (clH-6).

b) Electoral differences in the vote options and the voter's further political knowledge

To test these two cross–level hypotheses, the previous multi–level estimation on ideological European knowledge is expanded by the cross–level interaction terms between the two electoral differences in the vote options and ideological domestic knowledge, as shown in Table 4.2.2b.[45] In comparison to the previous model, most of the coefficients remain stable in the current estimation. The effect of ideological domestic knowledge slightly increases, controlling for its cross–level interactions with electoral differences in the vote options. This implies that the voter's ideological knowledge about the domestic left–right continuum has a somewhat stronger effect on ideological European knowledge if no electoral differences in the vote options exist. Furthermore, the direct effects of greater fragmentation (modified cH-3) and lower polarization (modified cH-4) on ideological European knowledge vanish. Controlling for the voter's ability to resort to ideological domestic knowledge, electoral differences in vote options do not reduce ideological European knowledge, per se.

Instead, greater fragmentation reduces the influence of ideological domestic knowledge on ideological European knowledge, as expected (clH-5). The higher number of vote options in the European election implies that some of these parties are not represented in the national parliament, being less visible on the domestic level. Consequently, the voter knows less about the parties' ideological behaviour on the domestic left–right continuum, reducing her ability to employ such ideological domestic knowledge to learn more about European integration.

Figure 4.2.2b-1 visualizes this conditional effect of ideological domestic knowledge (abscissa) on ideological European knowledge (ordinate) by greater fragmentation. Its dashed line refers to the country with the least fragmentation of all 27 EU member states: Lithuania (– 0.45). The solid line covers Great Britain (0.33), the country with the most fragmentation. Obviously, greater fragmentation has no effect on a voter with low ideological domestic knowledge, as illustrated by the overlapping confidence intervals of both lines on the left side of the figure. Increasing ideological domestic knowledge improves ideological European knowledge, as illustrated by the positive slopes of the lines. But in comparison to the dashed line, the slope of the solid line is noticeably lower. That is, in the country with the most fragmentation, the ability to resort to ideological domestic knowledge is lower than in the country with the least fragmentation. As expected, the higher number of vote options in the European election reduces the voter's ability to resort to ideological knowledge about the domestic left–right continuum to learn more about European integration.

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45 For a discussion of random slopes on the individual level, see Appendix A.2.1c.

Table 4.2.2b: Multi–level model of the voter's ideological European knowledge and resorting to political knowledge

dependent variable: ideological European knowledge	
interest in European election	-0.0062***
	(0.0019)
attention to news	-0.0031*
	(0.0011)
education	0.0066***
	(0.0014)
gender	-0.0001
	(0.0033)
duration	-0.0009***
	(0.0003)
factual European knowledge	-0.0010
	(0.0017)
ideological domestic knowledge	0.4166***
	(0.0365)
greater fragmentation (clH-5)	-0.1589*
	(0.0919)
lower polarization (clH-6)	-0.1928**
	(0.0819)
constant	0.3177***
	(0.0273)
greater fragmentation (modified cH-3)	0.0044
	(0.0692)
lower polarization (modified cH-4)	-0.0423
	(0.0489)
n (micro)	12,231
n (macro)	27
R^2 (micro)	0.140
R^2 (macro)	0.552
variance component (micro)	0.023
variance component (macro)	0.001
iterations	21

sources: individual–level data and lower polarization: EES (2009); greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.

notes: multi–level estimation by HLM 7, with robust standard errors in brackets below coefficients; variance components and R^2 depend on fixed slope model; levels of significance: * $p<0.10$, ** $p<0.05$, *** $p<0.01$ (two–sided test).

Similarly, lower polarization weakens the positive effect of ideological domestic knowledge on ideological European knowledge, as is clear from Table 4.2.2b (clH-6). Due to lower polarization, ideological knowledge about the more contested domestic left–right continuum is less useful for learning more about European integration. As argued, most of the domestic actors are supportive of the European integration process, resulting in little competition on European ideology. As a consequence, the voter's domestic perspective, deriving from the actors' higher diversity on domestic ideology, suggests that the idea of European integration does not provide further political alternatives than an ongoing integration process. It reduces the voter's ability to resort to ideological domestic knowledge in order to improve her ideological knowledge of the idea of European integration.

Figure 4.2.2b-2 illustrates this conditional effect of ideological domestic knowledge (abscissa) on ideological European knowledge (ordinate) by lower polarization. Its dashed line illustrates the country with the highest polarization: Austria (– 0.06). The solid line refers to Cyprus (0.76), the country with the lowest polarization. Obviously, the patterns of Figure 4.2.2b-2 follow those of Figure 4.2.2b-1. Lower polarization has no effect for a voter with low ideological domestic knowledge, shown on the lower left side of Figure 4.2.2b-2. With increasing ideological domestic knowledge, ideological European knowledge also increases, as visualized by the positive slopes of both lines. But the slope of the solid line is remarkably weaker than that of the dashed line. This indicates that the influence of better ideological domestic knowledge is less when polarization is low. In other words, because of the actors' lower diversity on European integration, ideological knowledge about the domestic left–right continuum is less useful for learning more about European ideology.

Figure 4.2.2b-1: The conditional effect of ideological domestic knowledge on ideological European knowledge by greater fragmentation (clH-5)

Overall, the analysis of cross–level interactions between electoral differences in the vote options and ideological domestic knowledge yields an important finding. The decreasing effects of greater fragmentation and lower polarization on ideological European knowledge, examined in Section 4.1, do indeed result from the reduced ability to resort to ideological domestic knowledge. That is, electoral differences in the vote options reduce the voter's ideological

knowledge about the idea of European integration in an indirect manner. The higher number of vote options in the European election and the relative lack of actors' diversity on European integration reduce the ability to resort to ideological domestic knowledge. To conclude, electoral differences in the vote options reduce ideological European knowledge due to the voter's failed domestic perspective on the EU.

Figure 4.2.2b-2: The conditional effect of ideological domestic knowledge on ideological
European knowledge by lower polarization (clH-6)
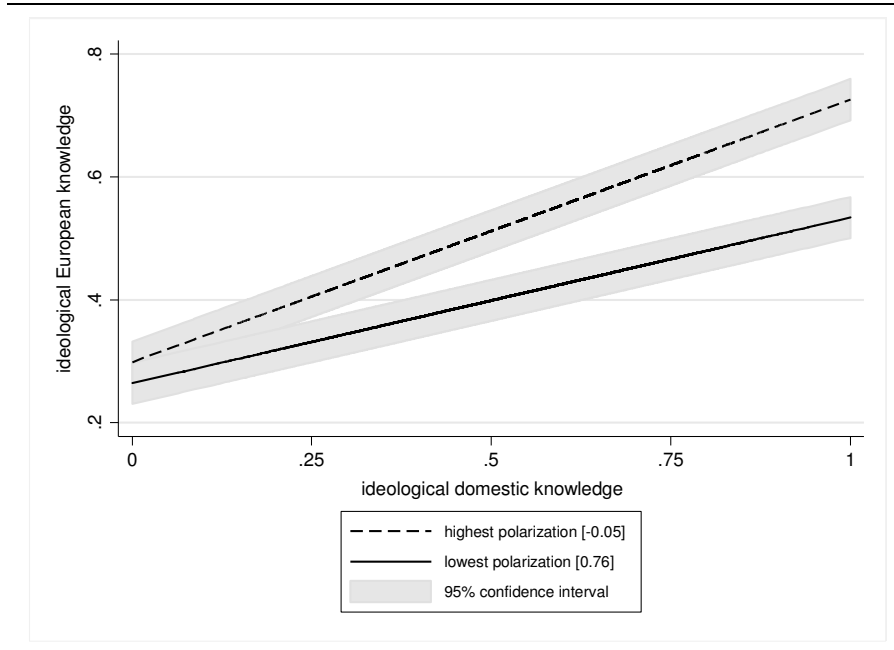
source: individual–level data and lower polarization: EES (2009).
model: predicted ideological European knowledge according to the estimates, displayed in Table 4.2.2b,
for a female mean voter in a country with equal fragmentation [0].

4.2.3   Summary: electoral differences and the voter's further political knowledge

This section investigated the voter's failed domestic perspective on the EU, caused by electoral differences. I expected that the voter's resort to further political knowledge, acquired on the domestic level, is less useful for improving European knowledge. That is, electoral differences in the formal rules reduce the voter's ability to employ further political knowledge to learn more about the EU political system. Likewise, electoral differences in the vote options decrease the utility of ideological knowledge about the domestic left–right continuum in improving ideological European knowledge. To test this expectation of resorting to inappropriate political knowledge, I expanded the multi–level regression models employed in the former section by the corresponding cross–level interactions between the electoral differences and the voter's further knowledge components.

My analysis yields several important findings. First, factual knowledge about the domestic political system remains a stable source of factual knowledge about the EU political system. Although factual domestic knowledge derives from a different political level, it still works for improving the voter's factual European knowledge. Second, electoral differences in the formal rules reduce the voter's ability to resort to ideological European knowledge to learn more about the EU political system. With a distinct formula in operation, better ideological European knowledge impedes the voter's interpretation of the actors' ideological behaviour and renders the domestic perspective on the EU misleading. Likewise, electoral differences decrease the voter's ability to employ ideological domestic knowledge to learn more about European integration. Greater fragmentation and lower polarization both cause the domestic perspective to fail, reducing the ability to resort to ideological knowledge about the domestic left–right continuum. To conclude, the analysis supports my expectation: electoral differences cause a failed domestic perspective, reducing the voter's ability to resort to further political knowledge to improve European knowledge.

4.3   Summary: electoral differences and the voter's European knowledge

Using the findings of Chapter 3, this chapter investigated the effects of electoral differences on the voter's European knowledge. I expected electoral differences to cause the voter's domestic perspective on the EU to fail. This means that European knowledge is systematically lower, because electoral differences reduce the voter's ability to resort to political knowledge acquired on the domestic level.

In a first step, I investigated the direct effects of electoral differences on the voter's European knowledge, without taking into account any ability to resort to further knowledge components. I showed that such effects of electoral differences are a question of differences in the vote options and ideological European knowledge, rather than of differences in the formal rules and factual European knowledge. Greater fragmentation and lower polarization reduce the voter's ideological knowledge about the idea of European integration and thus about the EU.

My second step was to examine the reduced ability to resort to political knowledge acquired on the domestic level. The findings demonstrate my expectation: electoral differences reduce the voter's European knowledge, due to the failure of the domestic perspective, as illustrated in Figure 4.3. For example, a distinct formula precludes the voter from employing ideological European knowledge to interpret the actors' ideological behaviour and thus to learn more about the EU and its political system. Likewise, electoral differences in the vote options decrease

ideological European knowledge, due to a higher number of vote options as well as the actors' being less divided on European integration. Such differences reduce the voter's ability to resort to ideological domestic knowledge to improve ideological knowledge of the idea of European integration. In short, electoral differences reduce the voter's European knowledge, mainly due to a less appropriate resort to further political knowledge.

Figure 4.3: Electoral differences and the voter's political knowledge
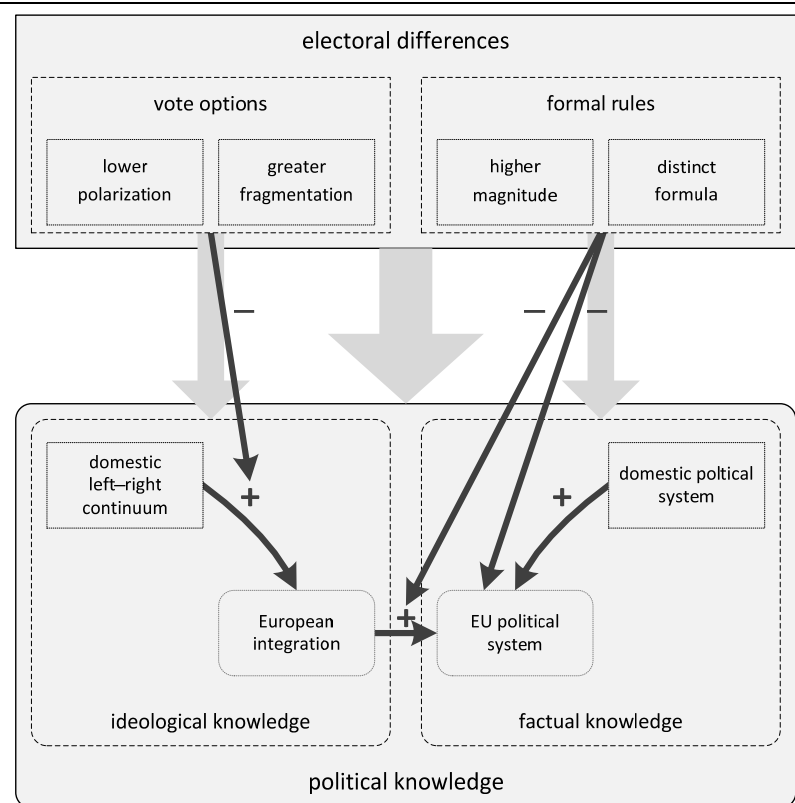
In sum, the findings of Chapters 3 and 4 support the first part of my research expectation: electoral differences reduce the voter's understanding of the European election. Because of the secondary nature of European knowledge, she invests little in it, but instead employs a domestic perspective on the EU. But in the context of electoral differences, this domestic perspective fails and the voter's European knowledge is systematically lower, reducing her understanding of the EU and the European election. For example, lower ideological European knowledge reduces the voter's awareness of her political preferences as well as of the actor that best represents these preferences. Investing in further European knowledge is not rational. Instead, the voter remains less informed and thus less able to understand the EU and the European election.

According to the second part of my research expectation, this lower understanding reduces the voter's likelihood of casting a ballot for the EP, causing systematically lower electoral

participation. To examine this second part, Chapter 5 next investigates the effects of electoral differences on the individual likelihood of participating in the European election and what part political knowledge plays in intervening in this likelihood.

5. Electoral differences and electoral participation

In a final step, Chapter 5 investigates the influences of electoral differences on the voter's likelihood of casting a ballot for the EP. As my previous chapters have shown, electoral differences reduce European knowledge and thus the voter's understanding of the EU and the European election. This lower understanding implies that political knowledge is more relevant in the context of electoral differences. On the one hand, political knowledge increases the voter's awareness of the electoral differences and enables her to overcome their consequences for the European election and the EP. On the other hand, electoral differences mean that better political knowledge has a demobilizing effect, if their consequences are not in line with the voter's political preferences. To demonstrate this second part of my research expectation, I once again employ multi–level regression analysis.

To briefly summarize the findings so far, Chapter 2 partly supported my expectation that electoral differences reduce electoral participation. However, as argued, electoral participation is an individual behaviour, necessitating an individual–level approach. According to the first part of my research expectation, electoral differences reduce the voter's understanding of the EU and the European election. Chapters 3 and 4 therefore examined the voter's European knowledge, assuming that such knowledge increases her understanding of the European election. I showed that European knowledge is secondary. Instead of becoming better informed about the EU, the voter employs a domestic perspective, resorting to political knowledge acquired on the domestic level. But electoral differences cause this domestic perspective to fail and European knowledge is systematically lower. As a consequence of this lower European knowledge, the voter's understanding of the EU and the European election is systematically lower, too.

In a final step, Chapter 5 focuses on the second part of my research expectation, examining the effects of electoral differences on the voter's likelihood of casting a ballot for the EP. The first section develops an individual model of the likelihood of participating in the European election, relying on earlier research. It thereby introduces the various effects of the voter's political knowledge components on the likelihood of voting. Using this individual model, Section 5.2 reinvestigates the four country–level hypotheses relating to the voter's electoral participation. The final section then examines the effects of electoral differences on the relevance of political knowledge for the likelihood of participating in the European election.

5.1 The voter's participation in the European election

To examine the voter's participation in the European election, I first of all develop an individual model of her likelihood of casting a ballot for the EP. As argued throughout this book, political knowledge is a major determinant of this likelihood. It enables the voter to understand the electoral event and mobilizes her to express her political preferences at the poll. However, in the context of the EU and the European election, this mobilizing effect of political knowledge is critical, as discussed below. Overall, I express four additional individual–level hypotheses about the various effects of the voter's political knowledge components on her likelihood of voting. Employing multi–level regression analysis, I test these four hypotheses, defining an initial individual model of participation in the European election, which I use in the remainder of this chapter.

5.1.1 The voter's likelihood of participating in the European election

Previous research has shown that political knowledge increases individual participation in an election, as discussed in Chapter 3. In the following, I focus on the effects of the voter's political knowledge components exert on her likelihood of voting in the European election. I start by discussing the relevance of factual knowledge about the EU as well as about the domestic political system to increase participation. In regard to ideological knowledge, my expectations are more diverse. On the one hand, I expect that greater ideological European knowledge reduces the voter's likelihood of participating, due to her lack of representation on the European level. On the other hand, I expect greater ideological domestic knowledge to have a mobilizing effect, due to the fact that the voter takes into account preferences about domestic politics when deciding on her vote for the EP.

To begin with, factual knowledge enables the voter to understand the electoral event and thus to participate in the election. For example, factual European knowledge provides information about the EP's relevance within the overall EU political system, e.g. in terms of being the only directly elected EU institution.[46] More importantly, factual European knowledge includes information about the formal rules of the European election. It explains how to cast a ballot for the EP, enabling the voter to participate. Consequently, my fourth individual–level hypothesis is:

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46 As argued in Chapter 2, the role of the EP in the EU political system is inferior in comparison to the EC Council or the EC Commission. Of course, this lower relevance reduces electoral participation, as implied by the 'less–at–stake' argument of second–order election theory. However, the relevance of EU politics has steadily increased, along with the relevance of the EP in the EU political system (Anderson and Kaltenthaler 1996; Hix 2005; Schmitt 2005; Hobolt and Wittrock 2011).

Greater factual European knowledge increases the voter's likelihood of participating in the European election (iH-4).

As Chapter 3 showed, factual domestic knowledge is a primary source of factual European knowledge, increasing the voter's understanding of the EU and its political system. Because of the multi–level structure of the national and the European election, factual domestic knowledge improves the voter's awareness of the relevance of the European election for the overall political system. Likewise, factual knowledge about the formal rules of the national election enables the voter to better understand the electoral rules of the European election, for example in terms of similarities between both elections. In other words, my fifth individual–level hypothesis expects:

Greater factual domestic knowledge increases the voter's likelihood of participating in the European election (iH-5).

As with factual knowledge, ideological knowledge increases the voter's understanding of the electoral event and thus her likelihood of casting a ballot in the election. Better ideological knowledge enables the voter to become aware of her political preferences and thus mobilizes her to express these preferences at the poll. But in the context of the European election, this mobilizing effect of greater ideological European knowledge is crucial. To be sure, it enables the voter to become aware of her political preferences and to better understand the political alternatives provided by the contesting actors. But if the contested alternatives do not represent the voter's preferences, greater ideological knowledge has a demobilizing effect on electoral participation. As indicated above, most of the domestic actors are more supportive of the European integration process than is the voter. This discrepancy causes the voter to lack representation in the European election and the EP. Greater ideological knowledge about the idea of European integration enables her to understand this lack, which in turn makes her less likely to cast a ballot. Hence, my sixth individual–level hypothesis is:

Greater ideological European knowledge reduces the voter's likelihood of participating in the European election (iH-6).

In contrast to ideological European knowledge, I expect ideological domestic knowledge to increase the likelihood of casting a ballot for the EP. According to the second–order election theory, the voter takes political preferences about domestic politics into account when participating in the European election. Knowledge about the domestic left–right continuum enables the voter to find the actor that represents her preferences on domestic politics and thus to ensure the representation of these domestic preferences on the European level. Greater ideological domestic knowledge thus mobilizes the voter to cast a ballot for the EP, as expected by my seventh individual–level hypothesis:

Greater ideological domestic knowledge increases the voter's likelihood of participating in the European election (iH-7).

In addition to political knowledge, other individual characteristics affect the likelihood of voting, such as the voter's socialization. Political socialization not only increases political knowledge, but also electoral participation.[47] Introducing the voter to the world of politics, it increases her awareness of the election and motivates her to vote (Lipset 1960; Froman 1961; Greenstein 1961; Verba and Nie 1972; Sears 1975; Milbrath and Goel 1977; Matsusaka 1995; Verba et al. 1995; Perea 2002; Karp 2006).[48] Likewise, the voter's political involvement – such as political interest – mobilizes her to express her political preferences at the poll (Milbrath and Goel 1977; Neuman 1986; Luskin 1990; Zaller 1992; Perea 2002; Wagner 2012). Finally, political attitudes increase electoral participation. For example, a voter's trust in political institutions or her attachment to a certain political party (termed partisanship in the following) mobilizes her to cast a vote in order to support the political institution or the favoured actor (Campbell et al. 1964; Converse 1967; Verba and Nie 1972; Milbrath and Goel 1977; Verba et al. 1995; Ohr et al. 2009; Wagner 2012; Eder and Katsanidou 2015).

5.1.2 Political knowledge and the voter's likelihood of participating

To test these four individual–level hypotheses on the voter's knowledge components and to establish an individual model of the likelihood of voting, I employ multi–level logistic regression analysis.[49] The first two columns of Table 5.1.2 display the results of an initial estimation on the voter's participation in the European election, showing the logistic regression coefficients (first column) and the corresponding odds ratios (second column). Most of the individual determinants, besides the four knowledge components, turn out to significantly increase the voter's likelihood of participating.

Focusing on the effects of the four knowledge components, the estimates of Table 5.1.2 support most of my individual–level hypotheses. Factual knowledge increases the likelihood of casting a

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47 As with the individual models of the voter's European knowledge, gender is taken into account in the following estimations, although earlier research on participation in the European election has found no effects of socialized gender roles (Hobolt 2005; Schmitt 2005; Rosema 2007; Eder and Katsanidou 2015).

48 In the context of length of time as a legal participant in the political system, earlier research on age has shown that it has an inverse effect over an individual's lifetime, known as the life–cycle effect. That is, while an individual's likelihood of participating increases with her age, this positive effect "peaks in the middle age, and falls in the later years" (Nie et al. 1974: 326; see also Glenn and Grimes 1968; Milbrath and Goel 1977; Wolfinger and Rosenstone 1980; Matsusaka 1995). However, while I employ duration in the EU, as introduced in Chapter 3, incorporating this life–cycle effect is beyond the scope of this study.

49 The data employed, as well as most of the variables, are those used in Chapters 3 and 4 above. For further information see Appendixes A.1 and A.2.2a for a brief discussion of the ANOVA–model of the voter's likelihood of participating in the European election.

ballot for the EP, no matter whether it pertains to the European (iH-4) or the domestic level (iH-5). Greater factual knowledge enables the voter to better understand the electoral event and thus motivates her to participate.

Table 5.1.2: Multi–level model of the voter's participation in the European election

dependent variable: participation in the European election				
	Model I		Model II	
	coefficient	odds ratio	coefficient	odds ratio
interest in European election	0.8358***	2.3066***	0.8357***	2.3065***
	(0.0372)		(0.0372)	
partisanship	0.4682***	1.5972***	0.4684***	1.5975***
	(0.0768)		(0.0770)	
trust in EU institutions	0.1377***	1.1477***	0.1377***	1.1476***
	(0.0200)		(0.0200)	
education	0.0783***	1.0814***	0.0778***	1.0809***
	(0.0170)		(0.0167)	
gender	0.0381	1.0388	0.0378	1.0386
	(0.0386)		(0.0386)	
duration	0.0408***	1.0417***	0.0408***	1.0417***
	(0.0047)		(0.0048)	
factual European knowledge (iH-4)	0.1124***	1.1190***	0.1119***	1.1184***
	(0.0263)		(0.0262)	
ideological European knowledge (iH-6)	− 0.3870***	0.6791***	− 0.3949***	0.6737***
	(0.1379)		(0.1313)	
factual domestic knowledge (iH-5)	0.0972***	1.1021***	0.0969***	1.1018***
	(0.0309)		(0.0306)	
ideological domestic knowledge (iH-7)	− 0.0352	0.9654		
	(0.1819)			
constant	− 1.1935***	0.3032***	− 1.2064***	0.2993***
	(0.2267)		(0.2293)	
n (micro)	12,231		12,231	
n (macro)	27		27	
log likelihood	− 16,298.12		− 16,296.42	
variance component (macro)	0.516		0.516	
iterations	15		15	

source: EES (2009).
notes: multi–level estimation of population average model by HLM 7, displaying logistic coefficients in the first column and the odds ratio in the second column, with robust standard errors in brackets below coefficients; variance component depends on unit–specific model with fixed slopes; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided test).

In contrast, ideological European knowledge reduces the voter's likelihood of participating in the European election (iH-6). Greater ideological knowledge of the idea of European integration increases the voter's awareness that the contesting actors are more supportive of the European integration process than she is, and thus do not represent her political preferences. As a consequence, knowledge about European ideology has a demobilizing effect on the voter in the European election.

Finally, ideological domestic knowledge has no influence on the likelihood of voting. This contradicts the expectation that knowledge about the domestic left–right continuum is relevant for the voter's participation in the European election (iH-7). The second–order election theory has shown that the voter takes preferences about domestic politics into account when making

her vote choice in the election. This necessitates ideological domestic knowledge. Instead my findings suggest that the voter's knowledge of domestic ideology is not relevant to her decision whether to participate in the election at all.

In sum, this first model of the voter's likelihood of casting a ballot for the EP yields three major findings. First of all, factual knowledge about the EU political system as well as about the domestic system increases participation in the European election. Such knowledge includes information about the electoral rules and enables the voter to cast a ballot. Second, greater ideological European knowledge demotivates. It increases the voter's awareness of the lack of representation in the European election, because of which she is less likely to vote. Finally, ideological domestic knowledge has no effect on the voter's participation. A better understanding of the domestic left–right continuum is of no relevance for her decision to cast a ballot or to abstain from voting in the European election.

In other words, the findings of the first individual model support most of my individual–level hypotheses on the voter's political knowledge. The one exception is knowledge of the domestic left–right continuum, which is not relevant for the voter's participation in the European election. To establish a final individual model of the voter's likelihood of casting a ballot for the EP, the third and fourth columns of Table 5.1.2 replicate the first estimation, not taking into account her ideological domestic knowledge. Excluding such knowledge of domestic ideology from the model scarcely changes the coefficients of the remaining individual determinants, as can be seen in the table. This second estimation defines the individual model employed in the remainder of Chapter 5.

5.2   Electoral differences and the voter's electoral participation

Using this individual model, I next examine the direct effects of electoral differences on the voter's likelihood of casting a ballot for the EP. I start with a brief review of the four country–level hypotheses, expressed in Chapter 2, regarding individual electoral participation. I then test these hypotheses, expanding the former estimation by the four measurements on electoral differences employed in Chapters 2 and 4.

5.2.1   Electoral differences and the voter's likelihood of participating

As expected in my first country–level hypothesis, a distinct formula reduces participation in the European election. Replacing the national ballot formula by a different one for the EP increases the relevance of parties and causes a more indirect representation of the voter by parties instead

of directly elected members of the EP. The voter's domestic perspective on the EU hinders her understanding of such consequences of a distinct formula for the European election and the EP. Because of this lower understanding, she is less likely to cast a ballot. In regard to the individual voter, my first country–level hypothesis expects that:

A distinct formula reduces the voter's likelihood of participating in the European election (cH-1).

Likewise, a higher magnitude reduces electoral participation, implied by my second country–level hypothesis. A higher magnitude implies a higher number of contesting actors in the voter's electoral district for the European election. Employing a domestic perspective, the voter is less familiar with the bigger European district as well as with the higher number of actors contesting it. This reduces her understanding and she is therefore less likely to cast a ballot for the EP, as indicated by my second country–level hypothesis in regard to the individual voter:

A higher magnitude reduces the voter's likelihood of participating in the European election (cH-2).

According to the third country–level hypothesis, greater fragmentation reduces electoral participation. The higher number of vote options indicates that some parties in the European election are not represented in the national parliament. Such additional parties are less visible on the domestic level and the voter's domestic perspective fails to provide information about them. This reduces the voter's understanding of the electoral event, discouraging her from voting. Hence, my third country–level hypothesis in regard to the individual voter is:

Greater fragmentation reduces the voter's likelihood of participating in the European election (cH-3).

Finally, the fourth country–level hypothesis expects lower polarization to reduce electoral participation. The actors' lower diversity on European integration causes the voter to be less well represented by the contesting actors. In addition, less competition among the actors reduces the visibility of the alternative options in European ideology. It decreases the voter's understanding of the idea of European integration as well as of the actors' ideological behaviour, and thus of the electoral event. Consequently, she is less likely to cast a ballot for the EP, as implied by my fourth country–level hypothesis in regard to the individual voter:

Lower polarization reduces the voter's likelihood of participating in the European election (cH-4).

5.2.2   The direct effects of electoral differences on the voter's likelihood of participating

To test these four country–level hypotheses in a multi–level approach, the individual model, established in the former section, is expanded by the four measurements on electoral differences employed in Chapters 2 and 4. Table 5.2.2 displays this estimation, presenting the logistic coefficients in the first column and the odds ratios in the second column. In comparison to the initial individual model, shown in the third and fourth columns of Table 5.1.2, the effects of the individual determinants hardly change. The coefficients of the voter's factual knowledge components as well as of ideological European knowledge remain stable predictors of her likelihood of casting a ballot for the EP in this estimation.

In addition, the coefficient of a distinct formula on the likelihood of participating in the European election is significantly negative. Replacing the national mixed or majoritarian formula by a proportional one for the EP increases the relevance of parties in the European election and causes a more indirect representation of the voter in the EP. As a consequence, the voter is less familiar with the electoral event and her domestic perspective fails to help her better understand the European election. Because of this lower understanding, she is less likely to vote. In short, a distinct formula decreases participation in the European election, as expected (cH-1).

In contrast, the other three electoral differences have no effect on the individual likelihood of casting a ballot for the EP. The coefficient of a higher magnitude on the model's intercept is insignificant. A higher number of contesting actors in the European electoral district has no effect on the voter's decision to participate in the European election (cH-2). Likewise, the coefficients of greater fragmentation (cH-3) and lower polarization (cH-4) do not demonstrate any systematic effect on the likelihood of voting. Neither a higher number of vote options in the European election nor their lower diversity on European integration than on the domestic left–right continuum tends to reduce the voter's understanding and thus her electoral participation.

To conclude, with the exception of a distinct formula, electoral differences seem not to affect the voter's likelihood of participating in the European election. Nonetheless, according to my research expectation, lower participation is the consequence of a poorer understanding of the European election. Chapter 4 showed that electoral differences reduce the voter's European knowledge. Furthermore, the individual model of the likelihood of voting demonstrates that political knowledge is relevant to participation. That is, for example, the voter's factual knowledge increases her likelihood of participating. But because factual European knowledge is systematically lower due to electoral differences, this likelihood is lower, too. In contrast, the voter's political knowledge becomes more relevant in the context of electoral differences. It

increases her awareness of the electoral differences and enables her to overcome their consequences for the electoral event, as I will show in the following section.

Table 5.2.2: Multi–level model of the voter's electoral participation and electoral differences

dependent variable: participation in the European election		
	coefficient	odds ratio
interest in European election	0.8488***	2.3367***
	(0.0362)	
partisanship	0.4860***	1.6258***
	(0.0741)	
trust in EU institutions	0.1395***	1.1497***
	(0.0201)	
education	0.0787***	1.0818***
	(0.0171)	
gender	0.0382	1.0389
	(0.0399)	
duration	0.0412***	1.0421***
	(0.0048)***	
factual European knowledge	0.1127***	1.1193***
	(0.0272)	
ideological European knowledge	− 0.4059***	0.6663***
	(0.1349)	
factual domestic knowledge	0.0977***	1.1026***
	(0.0315)	
constant	− 1.0027***	0.3669***
	(0.2849)	
distinct formula (cH-1)	− 0.5536***	0.5749***
	(0.1851)	
higher magnitude (cH-2)	− 0.0590	0.9427
	(0.0748)	
greater fragmentation (cH-3)	0.2023	1.2242
	(0.3803)	
lower polarization (cH-4)	− 0.0914	0.9127
	(0.3992)	
n (micro)	12,231	
n (macro)	27	
log likelihood	− 16,482.35	
variance component (macro)	0.488	
iterations	20	

sources: individual–level data and lower polarization: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011); greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.

notes: multi–level estimation of population average model by HLM 7, displaying logistic coefficients in the first column and the odds ratio in the second column, with robust standard errors in brackets below coefficients; variance component depends on unit–specific model with fixed slopes; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided test).

5.3 Electoral differences, political knowledge and electoral participation

To examine the greater relevance of the voter's political knowledge in the context of electoral differences, I investigate the interactions between electoral differences in the formal rules and factual knowledge. I expect such knowledge to be more important for voting when there is a distinct formula or a higher magnitude. In regard to electoral differences in the vote options and

ideological European knowledge, my expectations are more diverse. On the one hand, such ideological knowledge about the idea of European integration is more relevant, for example in the context of greater fragmentation and the additional vote options in the European election. On the other hand, I expect that the demobilizing effect of greater ideological European knowledge, examined above, is indeed a result of lower polarization. Better ideological European knowledge increases the voter's awareness of lack of representation – a consequence of lower polarization – discouraging her from voting. In total, I express six additional cross–level hypotheses and test them, expanding the previous regression model by the corresponding cross–level interaction terms.

5.3.1   Electoral differences and the voter's political knowledge

According to my research expectation, electoral differences hamper the voter's understanding of the European election and thus reduce electoral participation. This implies that, in the context of electoral differences, political knowledge is of greater relevance. It increases the voter's awareness of such differences and enables her to understand their consequences for the electoral event. For example, factual European knowledge enables her to become aware of electoral differences and to overcome their consequences for the European election as well as the EP. In order to vote, the voter needs knowledge about the ballot formula employed and how the replacement of the national formula by a different one for the EP affects the electoral event. Otherwise, she is less able to understand the greater importance of parties in the election and her more indirect representation in the EP. In other words, a distinct formula increases the relevance of factual knowledge about the EU, as implied by my seventh cross–level hypothesis:

A distinct formula strengthens the positive effect of factual European knowledge on the voter's likelihood of participating in the European election (clH-7).

Similarly, a higher magnitude necessitates factual European knowledge. As discussed, the greater number of actors contesting the voter's European electoral district reduces her understanding of the European election. To overcome this lower understanding, she needs factual knowledge about the formula rules, for example how a higher magnitude affects the European election, its campaign and its outcome. A higher magnitude thus increases the relevance of factual European knowledge for voting, as expressed by my eighth cross–level hypothesis:

A higher magnitude strengthens the positive effect of factual European knowledge on the voter's likelihood of participating in the European election (clH-8).

In addition to factual European knowledge, the voter needs factual knowledge about the national election, especially in the context of electoral differences. For example, in regard to replacing the

national formula by a different one for the EP, the voter has to be aware of this national formula and how it affects representation in the national parliament and in domestic politics. Employing such knowledge in the context of the European election increases her understanding of the differences imposed and enables her to deal with the greater importance of parties and the more indirect representation in the EP. In other words, a distinct formula increases the relevance of knowledge about the domestic political system, as implied by my ninth cross–level hypothesis:

A distinct formula strengthens the positive effect of factual domestic knowledge on the voter's likelihood of participating in the European election (clH-9).

Similarly, a higher magnitude increases the relevance of factual domestic knowledge. It provides information about the national electoral district and increases the voter's awareness of the higher number of contesting actors in her European electoral district. More factual domestic knowledge enables the voter to better understand the higher magnitude and its consequences for the European election. A higher magnitude thus renders factual domestic knowledge more important for mobilizing her, as indicated by my tenth cross–level hypothesis:

A higher magnitude strengthens the positive effect of factual domestic knowledge on the voter's likelihood of participating in the European election (clH-10).

Besides factual knowledge, ideological European knowledge is also relevant for the voter's participation in the European election. But, in contrast to factual knowledge, I expect that greater ideological European knowledge has distinct consequences for the voter's likelihood of casting a ballot for the EP, depending on the concrete electoral difference in the vote options. On the one hand, greater fragmentation, implying additional vote options in the European election, necessitates better ideological European knowledge. Some of the vote options in the European election are not represented in the national parliament. The voter knows little about such parties, due to their lower visibility on the domestic level, as discussed in Chapter 4. But to participate in the election and to find the actor that represents her political preferences best, the voter needs to know both the vote options and the actors' ideological behaviour in respect to the idea of European integration. As a consequence, knowledge about European ideology is more relevant for voting in the European election, because of greater fragmentation. Taking the demobilizing effect of ideological European knowledge into account, this means that greater fragmentation reduces the negative influence of ideological European knowledge on the voter's electoral participation, as expected by my eleventh cross–level hypothesis:

Greater fragmentation weakens the negative effect of ideological European knowledge on the voter's likelihood of participating in the European election (clH-11).

On the other hand, I expect that the demobilizing influence of ideological European knowledge on the voter's likelihood of participating, found above, is caused by lower polarization rather than better ideological knowledge of the idea of European integration on its own. As argued, lower polarization occurs due to the actors' general supportiveness of the European integration process, unlike the voter's more diverse political preferences. This discrepancy causes a lack of representation on the European level. Better ideological European knowledge enables the voter to understand this lack, reducing her likelihood of voting. In other words, it is lower polarization that causes the demobilizing influence of better knowledge of European ideology on electoral participation. My twelfth cross–level hypothesis is thus:

Lower polarization causes the negative effect of ideological European knowledge on the voter's likelihood of participating in the European election (clH-12).

5.3.2 The indirect effects of electoral differences on the voter's likelihood of participating

To test the various influences of electoral differences on the voter's political knowledge, affecting her likelihood of participating in the European election, Table 5.3.2-1 displays the results of the multi–level regression estimation, including the corresponding cross–level interaction terms. In comparison to the previous estimation, the coefficients of the individual determinants remain stable.[50]

In regard to the cross–level interaction effects between electoral differences in the formal rules and the voter's factual European knowledge, the positive coefficient of such knowledge on electoral participation is similar to the one estimated above. Moreover, electoral differences in the formal rules have no effect on factual European knowledge. That is, a distinct formula does not increase the relevance of factual knowledge about the formal rules of the European election for the voter's likelihood of participating (clH-7), as Table 5.3.2-1 shows. Although the replacement of the national ballot formula by a different one for the EP increases the relevance of parties and causes more indirect representation, it does not necessitate better factual European knowledge. Likewise, a higher magnitude has no effect on the influence of the voter's factual knowledge about the EU political system and its electoral rules (clH-8). The higher number of contesting actors in the European electoral district does not increase the relevance of factual European knowledge.

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50 For a discussion of random slopes on the individual level, see Appendix A.2.2d.

Table 5.3.2-1: Multi–level model of the voter's electoral participation
and the relevance of political knowledge

dependent variable: participation in the European election

	coefficient	odds ratio
interest in European election	0.8481***	2.3352***
	(0.0363)	
partisanship	0.4887***	1.6301***
	(0.0744)	
trust in EU institutions	0.1389***	1.1490***
	(0.0198)	
education	0.0784***	1.0816***
	(0.0168)	
gender	0.0379	1.0386
	(0.0408)	
duration	0.0417***	1.0426***
	(0.0049)	
factual European knowledge	0.1028***	1.1082***
	(0.0317)	
distinct formula (clH-7)	0.0659	1.0681
	(0.0851)	
higher magnitude (clH-8)	− 0.0156	0.9845
	(0.0314)	
ideological European knowledge	0.0503	1.0516
	(0.1960)	
greater fragmentation (clH-11)	1.0366	2.8197
	(0.7240)	
lower polarization (clH-12)	− 0.6951	0.4990
	(0.4727)	
factual domestic knowledge	0.0614**	1.0634**
	(0.0305)	
distinct formula (clH-9)	0.1492***	1.1609***
	(0.0450)	
higher magnitude (clH-10)	− 0.0026	0.9974
	(0.0218)	
Constant	− 1.1476***	0.3174***
	(0.2825)	
distinct formula (cH-1)	− 0.9385***	0.3912***
	(0.2252)	
higher magnitude (cH-2)	− 0.0257	0.9746
	(0.1095)	
greater fragmentation (cH-3)	− 0.2371	0.7889
	(0.4495)	
lower polarization (cH-4)	0.2718	1.3123
	(0.4584)	

n (micro)	12,231
n (macro)	27
log likelihood	− 16,462.80
variance component (macro)	0.495
iterations	20

sources: individual–level data and lower polarization: EES (2009); distinct formula: CPDS–III
(2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al.
(2011); greater fragmentation: IPU (2011), European Parliament Archive (2011) and
UK Electoral Commission (2011) for Great Britain.

notes: multi–level estimation of population average model by HLM 7, displaying logistic
coefficients in the first column and the odds ratio in the second column, with
robust standard errors in brackets below coefficients; variance component depends
on unit–specific model with fixed slopes; levels of significance: * $p<0.10$, ** $p<0.05$,
*** $p<0.01$ (two–sided test).

In sum, these findings on the interactions between electoral differences in the formal rules and factual European knowledge have a major implication. Such factual knowledge about the EU and its political system provides information about the electoral rules of the European election. It enables the voter to participate and mobilizes her to do so. But factual European knowledge is not of higher relevance for participation in the European election, due to electoral differences in the formal rules.

Turning to factual domestic knowledge, taking cross–level interactions into account, its coefficient is noticeably lower, compared to the former estimations. That is, the positive effect of factual knowledge about the domestic political system on the voter's likelihood of participating in the European election is weaker if no electoral differences in the formal rules exist. For a voter in such a country, factual domestic knowledge is less important in facilitating voting for the EP. The electoral rules of the national and European elections are (more or less) similar, reducing the need for greater factual knowledge of the national electoral rules. This finding proves my expectation that factual domestic knowledge is more relevant in the context of electoral differences in the formal rules in the first instance.

While factual domestic knowledge is less relevant for a voter if no electoral differences exist, its cross–level interaction coefficient with a distinct formula is significantly positive. This implies that factual knowledge about the domestic political system and the formal rules of the national election is more relevant because of a distinct formula (clH-9). When the national mixed or majoritarian ballot formula is replaced by a proportional one for the EP, the voter has to become aware of the electoral difference and its consequences. This necessitates better factual domestic knowledge, increasing its relevance for electoral participation. In addition to this higher relevance of factual domestic knowledge, a distinct formula itself still reduces the voter's likelihood of participating, as Table 5.3.2-1 makes clear.

To illustrate the overall influence of a distinct formula, Figure 5.3.2-1 displays the conditional effect of factual domestic knowledge (abscissa) on the likelihood of participating in the European election (ordinate). Its dashed line shows the effect of better factual domestic knowledge in countries with a similar formula. The solid line illustrates countries with a distinct formula. Obviously, greater factual domestic knowledge increases the likelihood of participating in the European election, as indicated by the positive slopes of both lines. But note, first, the solid line starts on a distinctly lower level than the dashed line, shown on the left side of the figure. That is, a voter with no factual domestic knowledge has a lower likelihood of participating in the European election in a country with a distinct formula than in a country with a similar formula.

Figure 5.3.2-1: The conditional effect of factual domestic knowledge on the likelihood of participating by a distinct formula (clH-9)
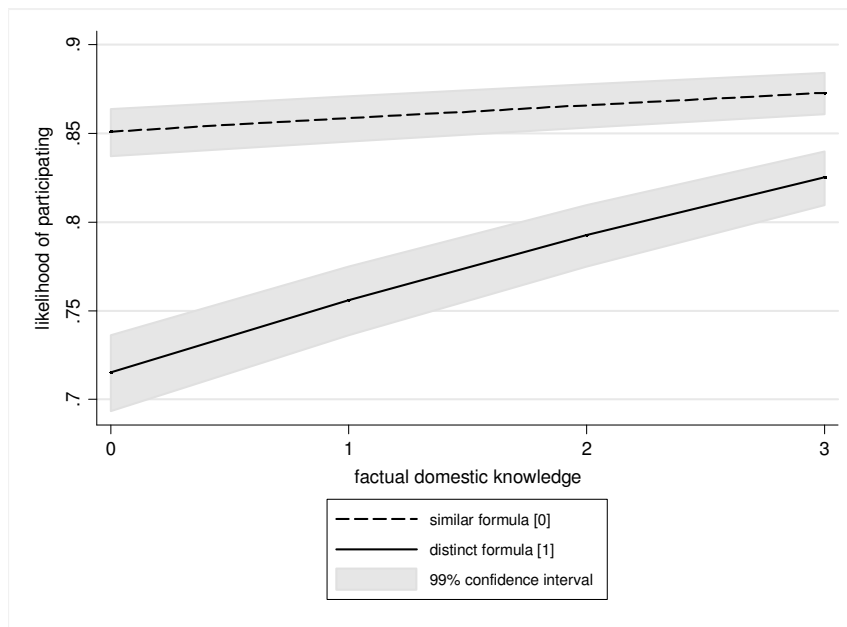
sources: individual–level data: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002).
model: predicted likelihood of participating according to the estimates, displayed in Table 5.3.2-1, for a female mean voter in a country with an equal magnitude [0], equal fragmentation [0] and equal polarization [0].

Second, the slope of the solid line is significantly steeper than that of the dashed line. The positive effect of greater factual domestic knowledge is stronger in countries with a distinct formula, reflecting the greater relevance of such knowledge for electoral participation. Finally, over the whole range of factual domestic knowledge, the solid line remains below the dashed one. Although knowledge about the domestic political system has a much stronger influence, given a distinct formula, it does not completely compensate for the negative direct effect of such a distinct formula on the voter's likelihood of participating. In sum, replacing the national ballot formula by a distinct one for the EP reduces participation in the European election.

In contrast, a higher magnitude does not affect the positive influence of factual domestic knowledge on the voter's likelihood of casting a ballot for the EP. This disproves my tenth cross–level hypothesis, which expected the higher number of contesting actors in the voter's European electoral district to increase the relevance of factual knowledge about the domestic political system and the national electoral rules for voting (clH-10).[51]

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51 To control for potentially overlapping effects of a higher magnitude and a distinct formula, the model in Table 5.3.2-1 has been re-estimated, including cross–level interaction terms with a higher magnitude and both knowledge components, exclusively. This additional estimation does not yield any further result, as shown in Appendix A.2.2b.

To conclude, the analysis of electoral differences in the formal rules and their interactions with factual domestic knowledge yields two additional findings. First, a distinct formula decreases the voter's likelihood of casting a ballot for the EP. Replacing the national ballot formula by a different one increases the relevance of parties in the European election and causes a more indirect representation. It reduces the voter's understanding and consequently her likelihood of participating in the European election. Moreover, this lower understanding necessitates further factual domestic knowledge. Such knowledge increases the voter's awareness of the distinct formula and its consequences for the electoral event and the EP. Better factual knowledge about the domestic level hence partly balances the demobilizing effect of a distinct formula on the voter's likelihood of participation. Second, a higher district magnitude in the European than in the national election has no effect on the voter's likelihood of casting a ballot for the EP, neither directly nor by increasing the relevance of her factual domestic knowledge.

Turning to the cross–level interactions of electoral differences in the vote options and ideological European knowledge, the coefficient of ideological European knowledge becomes insignificant, as shown in Table 5.3.2-1. That is, the voter's ideological knowledge about the idea of European integration is irrelevant to her likelihood of participating if there are no electoral differences in the vote options. Once their number is not higher in the European than in the national election and once the vote options are not less diverse on European integration than on the domestic left–right continuum, ideological European knowledge no longer exerts a demobilizing effect on the voter. In other words, the negative effect of ideological European knowledge, found above, vanishes, controlling for its interactions with electoral differences in the vote options. This demonstrates my twelfth cross–level hypothesis in the first instance.

In contrast, neither greater fragmentation (clH-11) nor lower polarization (clH-12) has any effect on ideological European knowledge and its influence on the voter's likelihood of casting a ballot for the EP, as Table 5.3.2-1 makes clear. But the absence of effects caused by electoral differences in the vote options on knowledge of European ideology might be due to some overlap between the two electoral differences. As briefly discussed in Chapter 2, greater fragmentation negatively relates to lower polarization. With an increasing number of vote options, diversity on European integration increases, too. Consequently, the expected positive effect of greater fragmentation and the negative effect of lower polarization on ideological European knowledge might cancel each other out. To control for this overlap, I re-estimate the

Table 5.3.2-2: Multi–level model of the voter's electoral participation and the relevance of ideological European knowledge

dependent variable: participation in the European election

	Model I		Model II	
	coefficient	odds ratio	coefficient	odds ratio
interest in European election	0.8479***	2.3348***	0.8477***	2.3344***
	(0.0362)		(0.0363)	
partisanship	0.4869***	1.6273***	0.4892***	1.6310***
	(0.0741)		(0.0743)	
trust in EU institutions	0.1403***	1.1507***	0.1394***	1.1496***
	(0.0198)		(0.0200)	
education	0.0790***	1.0822***	0.0776***	1.0807***
	(0.0169)		(0.0170)	
gender	0.0378	1.0385	0.0373	1.0380
	(0.0408)		(0.0408)	
duration	0.0415***	1.0424***	0.0416***	1.0425***
	(0.0048)		(0.0048)	
factual European knowledge	0.1127***	1.1193***	0.1128***	1.1194***
	(0.0268)		(0.0270)	
ideological European knowledge	− 0.2101	0.8105	0.0912	1.0955
	(0.1592)		(0.2116)	
greater fragmentation (clH-11)	1.4132**	4.1091**		
	(0.5898)			
lower polarization (clH-12)			− 1.1066***	0.3307***
			(0.3842)	
factual domestic knowledge	0.0609*	1.0628*	0.0599**	1.0618**
	(0.0318)		(0.0317)	
distinct formula (clH-9)	0.1498**	1.1616**	0.1509**	1.1629**
	(0.0670)		(0.0665)	
constant	− 1.0296***	0.3572***	− 1.1815***	0.3068***
	(0.2769)		(0.2849)	
distinct formula (cH-1)	− 0.8316***	0.4353***	− 0.8277***	0.4371***
	(0.2427)***		(0.2429)	
higher magnitude (cH-2)	− 0.0571	0.9445	− 0.0578	0.9438
	(0.0750)		(0.0751)	
greater fragmentation (cH-3)	− 0.4309	0.6499	0.2618	1.2992
	(0.4033)		(0.3723)	
lower polarization (cH-4)	− 0.0789	0.9241	0.4701	1.6002
	(0.3966)		(0.4439)	
n (micro)	12,231		12,231	
n (macro)	27		27	
log likelihood	− 16,451.89		− 16,463.79	
variance component (macro)	0.499		0.492	
iterations	20		20	

sources: individual–level data and lower polarization: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011); greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.

notes: multi–level estimation of population average model by HLM 7, displaying logistic coefficients in the first column and the odds ratio in the second column, with robust standard errors in brackets below coefficients; variance component depends on unit–specific model with fixed slopes; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided test).

model of Table 5.3.2-1 separately for greater fragmentation and lower polarization, shown in Table 5.3.2-2.[52]

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[52] Re-estimating the model on the voter's likelihood of participating in the European election separately for greater fragmentation and lower polarization necessitates a methodological remark. The regression estimation shown in Table 5.3.2-1 takes into account the common effect of both electoral differences in the vote options on the likelihood of voting. Instead, separate estimations ignore the correlation between greater fragmentation and lower polarization, briefly discussed in Chapter 2. While such

The first model in Table 5.3.2-2 controls for the cross–level interaction between greater fragmentation and ideological European knowledge, exclusively, shown in its first two columns. Note first that the effect of ideological European knowledge remains insignificant. Given an equal number of vote options, greater ideological knowledge about the idea of European integration is not relevant to the voter's likelihood of participating in the European election. In contrast, greater fragmentation positively affects the influence of ideological European knowledge on the voter's ballot cast. As expected, the higher number of vote options in the European election increases the relevance of knowledge about European ideology, enabling the voter to better understand the additional vote options (clH-11).

Figure 5.3.2-2 visualizes the conditional effect of ideological European knowledge (abscissa) on the voter's likelihood of participating in the European election (ordinate) by greater fragmentation. The dashed line illustrates the effect for the country with least fragmentation: Lithuania (– 0.45). The solid line refers to the country with most fragmentation, which is Great Britain (0.33). Obviously, the slope of the solid line is marginal. The voter's ideological knowledge about the idea of European integration is more or less irrelevant to her likelihood of participating in the European election if there are more vote options in the European than in the national election. Instead, the dashed line has a notably negative slope. This implies that a voter with greater ideological European knowledge has a lower likelihood of casting a ballot for the EP, due to a lower number of vote options in the European election.

This visualization might be counterintuitive compared to the previous discussion of the positive effect of greater fragmentation, displayed in Table 5.3.2-2. But it is not. In fact, Figure 5.3.2-2 demonstrates two things: first, the demobilizing effect of greater ideological European knowledge, examined above, at least partly derives from the fact that in most of the EU member states the number of vote options in the European election is somewhat lower than in the national election. This causes greater ideological European knowledge to have a negative effect, illustrated by the dashed line. Second, once the number of vote options increases, ideological knowledge about the idea of European integration becomes more relevant in causing the voter to cast a ballot for the EP. That is, as the number of vote options in the European election increases more and more, the slope of the solid line becomes positive. Greater fragmentation then increases the relevance of ideological European knowledge for the voter's likelihood of participating in the European election.

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interactions between electoral differences are not key to this book, separate estimations provide a first insight into the distinct effects of electoral differences in the vote options on the likelihood of voting. Appendix A.2.2c discusses the conditional effects of greater fragmentation and lower polarization according to the estimates of Table 5.3.2-1.

Figure 5.3.2-2: The conditional effect of ideological European knowledge on the
likelihood of participating by greater fragmentation (clH-11)

The second estimation, displayed in the third and fourth columns of Table 5.3.2-2, includes a cross–level interaction term between lower polarization and ideological European knowledge, exclusively. Like the first model, the effect of ideological European knowledge on the voter's likelihood of participating is insignificant. Her ideological knowledge about the idea of European integration has no demobilizing effect, at least in the absence of lower polarization. Instead, this demobilizing effect of ideological European knowledge on electoral participation results from lower polarization. The actors' lower diversity on European integration implies a lack of representation on the European level. Greater knowledge of European ideology enables the voter to become aware of this lack. Anticipating not being represented in the European election, a voter with greater ideological European knowledge is discouraged from casting a ballot for the EP (clH-12).

Figure 5.3.2-3 visualizes this conditional effect of ideological European knowledge (abscissa) on the voter's likelihood of participation in the European election (ordinate) by lower polarization. The dashed line refers to Austria (− 0.06), the country with the highest polarization of all EU member states. The solid line indicates Cyprus (0.76), with the lowest polarization. Obviously, greater ideological European knowledge has different effects, depending on the relationship of the actors' polarization on European and domestic ideology. While the dashed line has a marginal

positive slope, the slope of the solid line is remarkably negative. Once the actors' diversity on European integration decreases, by comparison to diversity on domestic ideology, greater ideological European knowledge discourages participation in the European election. It enables the voter to understand the lack of representation caused by lower polarization and thus reduces her likelihood of casting a ballot for the EP.

Figure 5.3.2-3: The conditional effect of ideological European knowledge on the
likelihood of participating by lower polarization (clH-12)
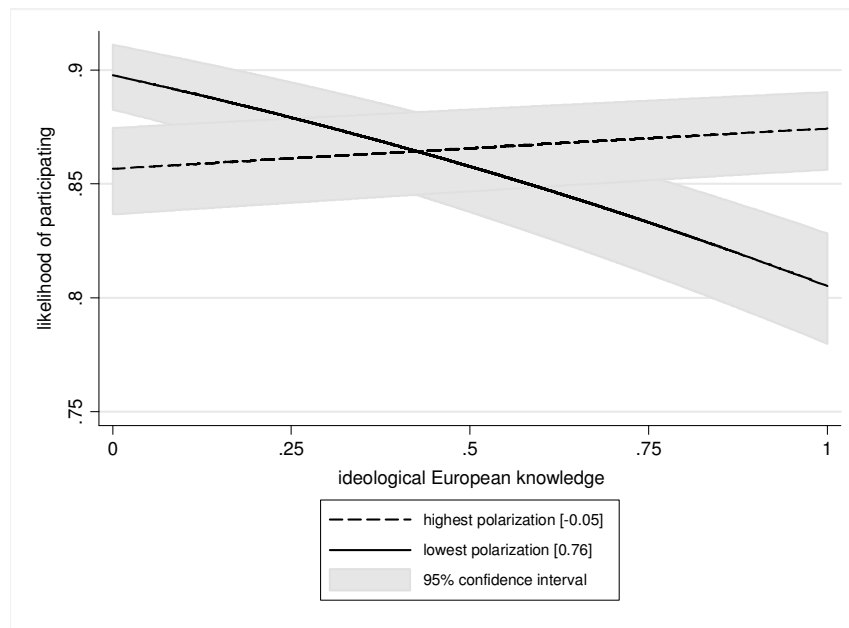
source: individual–level data and lower polarization: EES (2009).
model: predicted likelihood of participating according to the second estimates, displayed in Table 5.3.2-2,
           for a female mean voter in a country with a similar formula [0], an equal magnitude [0], and an equal
           fragmentation [0].

Overall, the analysis of electoral differences in the vote options and ideological European knowledge yields three major findings. First, the demobilizing effect of greater ideological European knowledge, examined above, is indeed caused by electoral differences in the vote options. Controlling for cross–level interactions with such differences, the negative influence of ideological European knowledge on the voter's likelihood of participating in the European election vanishes. Second, greater fragmentation increases the relevance of ideological knowledge about the idea of European integration. Because of the higher number of vote options in the European election, the voter needs additional information about them as well as about their ideological behaviour. Third, the examined demobilizing effect of greater ideological European knowledge derives from lower polarization. The actors' lower diversity on European than on domestic ideology causes a lack of representation. Greater ideological knowledge about

the idea of European integration enables the voter to perceive this lack and thus discourages her from casting a ballot for the EP.

5.3.3   Summary: electoral differences, political knowledge and electoral participation

To recap: the previous section examined the interactions between electoral differences and the voter's political knowledge, affecting her likelihood of voting in the European election. According to my research expectation, lower participation in the European election derives from the voter's poorer understanding of the electoral event, caused by electoral differences. Consequently, political knowledge becomes of higher relevance in the context of electoral differences. It increases the voter's awareness of such differences as well as of their consequences. Political knowledge thus fosters her understanding of the European election and the EP. To test this expectation, I expanded the former regression estimation by the corresponding cross–level interaction terms between the electoral differences and the voter's knowledge components.

My analysis yields several notable findings. First, a distinct formula reduces electoral participation, as discussed in Section 5.2. Replacing the national mixed or majoritarian formula by a proportional one for the EP reduces the voter's understanding of the electoral event and decreases her likelihood of participating in the European election. As a consequence, a distinct formula increases the relevance of factual domestic knowledge. Such knowledge raises the voter's awareness of the difference and explains its consequences for the electoral event. Factual knowledge about the domestic political system and the national electoral rules hence partly compensates for the negative influence of a distinct formula on electoral participation. Second, greater fragmentation necessitates further ideological knowledge of the idea of European integration to better understand the additional vote options in the European election. Finally, the demobilizing effect of ideological European knowledge, which I demonstrated, stems from lower polarization. Indeed, the actors' lower diversity on European than on domestic ideology causes the voter to lack representation on the European level. Enabling her to better understand this lack, greater ideological knowledge of the idea of European integration discourages her from voting in the European election.

5.4   Summary: electoral differences and electoral participation

Chapter 5 discussed the effects of electoral differences on the voter's likelihood of participating in the European election. According to my basic research expectation, electoral differences decrease the individual understanding of the European election. When the voter employs a

domestic perspective on the EU, such differences reduce her ability to resort to political knowledge acquired on the domestic level and thus decrease her European knowledge, as shown in Chapters 3 and 4. This lower knowledge reduces the voter's ability to better understand the EU and the European election, causing a lower likelihood of casting a ballot for the EP. Moreover, the lower understanding implies that electoral differences increase the relevance of political knowledge for overcoming the differences' consequences on the European election and the EP.

Note, first, that factual knowledge about the European as well as about the domestic political system increases the voter's likelihood of participating in the European election. Factual knowledge enables her to cast a ballot for the EP and mobilizes her to do so. The lower part of Figure 5.4 illustrates this positive effect of greater factual knowledge on electoral participation. However, taking into account that the voter's European knowledge is systematically lower, due to electoral differences, the positive effect of factual European knowledge implies a lower individual likelihood of voting in the European election in the first instance.

Figure 5.4: Electoral differences and the voter's participation in the European election
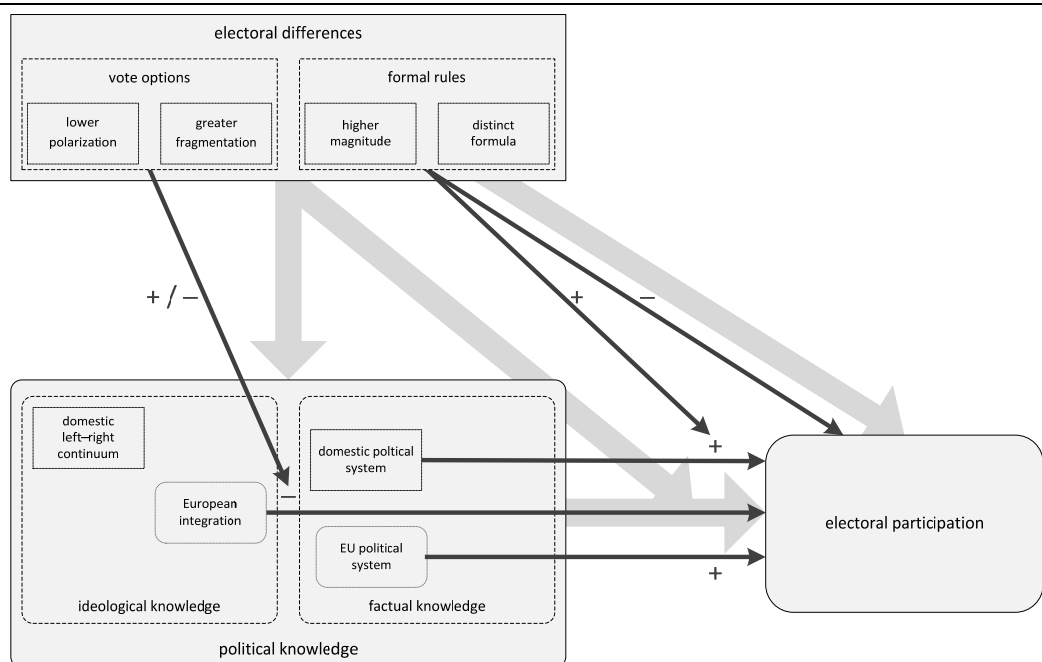
Second, factual knowledge is more relevant to the voter's participation in the European election if electoral differences exist. For example, a distinct formula necessitates better factual knowledge about the formal rules of the national election. On the one hand, a distinct formula reduces the likelihood of voting. On the other hand, it increases the relevance of factual domestic knowledge for understanding the consequences of a distinct formula on the European election

and the EP. Better factual domestic knowledge thus partly balances the negative effect of a distinct formula on electoral participation. In contrast, the influence of factual European knowledge on voting in the European election is not affected by electoral differences in the formal rules. The voter is either aware of the electoral rules in the European election, and thus motivated to vote, or she is not, reducing electoral participation. But electoral differences in the formal rules do not increase the relevance of factual knowledge about the EU political system and its electoral rules for the voter's likelihood of casting a ballot for the EP.

Third, the influence of the voter's ideological knowledge is ambiguous. On the one hand, ideological domestic knowledge has no effect on participation in the European election. Ideological knowledge about the domestic left–right continuum is irrelevant in deciding to vote or to abstain from the poll. On the other hand, ideological European knowledge demobilizes the voter. It increases her awareness of undesired consequences of electoral differences and thus encourages abstention from the poll. But in fact this demobilizing effect of greater ideological knowledge about the idea of European integration is caused by electoral differences in the vote options, such as lower polarization. The actors' lower diversity on European integration than on the domestic left–right continuum causes the voter to lack representation in the European election and hence in the EP. Better knowledge of European ideology enables the voter to perceive this lack and thus discourages her from voting. In contrast to this demobilizing effect, greater fragmentation increases the relevance of ideological European knowledge. The higher number of vote options in the European than in the national election necessitates greater ideological knowledge about the idea of European integration to improve the voter's understanding of these vote options and thus to participate in the European election.

In sum, Chapter 5 has shown that electoral differences matter, reducing the voter's likelihood of casting a ballot for the EP. These negative effects mainly derive from the voter's political knowledge. Electoral differences increase the relevance of such knowledge for understanding the differences and their consequences for the electoral event. But electoral differences also have a demobilizing effect, if their consequences are not in line with the voter's political preferences. To conclude, the present findings demonstrate my research expectation: electoral differences reduce the voter's understanding of the EU, making her less likely to vote and thus causing systematically lower participation in the European than in the national election.

6. Electoral differences and participation in second–order elections

Chapter 6 summarizes my research approach on electoral differences and generalizes its major findings in regard to second–order elections. In this context, I develop a first model on differences in electoral procedures between first– and second–order elections. Such differences reduce individual political knowledge about the second–order level and thus decrease the ability to better understand the second–order electoral event. As a consequence, the individual is less likely to cast a ballot for the second–order institution, causing systematically lower electoral participation. In addition, the chapter examines several drawbacks to my approach and identifies further research avenues in the context of differences in multi–level political systems. Finally, it points out some practical conclusions on the existence of electoral differences and voting in the European Parliament election.

My research expectation was that electoral differences between first– and second–order elections reduce the voter's understanding of the second–order electoral event and hence reduce participation in the second–order election. I examined the 2009 European election in juxtaposition with the previous national (parliamentary) elections in the EU member states. Due to the fact that the decision to participate in an election is an individual one, my aim was to provide a first insight into how such electoral differences affect the individual voter. I therefore investigated the voter's political knowledge about the EU and her individual domestic perspective on it. Differences in the electoral procedures mean that this domestic perspective fails to improve the voter's understanding of the EU, causing systematically lower participation in the European than in the national election.

My basic research expectation was first formulated by Karlheinz Reif and Hermann Schmitt (1980), who developed the second–order election theory. While this theory has been frequently extended and enhanced, the assumption about electoral differences has been (more or less) neglected. I thus examined a research gap in the second–order election theory, increasing our understanding of why citizens are less likely to vote in a second–order election. I provided an insight into the individual understanding of the second–order system and its election in the context of differences in the electoral procedures. In addition, assuming that maximizing electoral participation is a prerequisite of a well–functioning democracy, my study investigated a fundamental individual behaviour and a core topic of political research.

To summarize my research approach and to draw some final conclusions, the first section of Chapter 6 reviews my major findings on the voter's political behaviour in the context of electoral differences. In Section 6.2, I carefully generalize these findings on electoral differences in regard to second–order elections, establishing a first model on differences in the electoral procedures and their influences on the individual political behaviour. In Section 6.3, I then discuss several drawbacks to my approach, as well as some hypotheses that were disproved, and identify further research avenues in the context of differences between the various levels of multi–level political systems. Finally, I state some practical conclusions on the existence of electoral differences in the European Parliament elections.

6.1   Electoral differences and electoral participation

The second–order election theory assumes that differences in electoral procedures reduce the individual understanding of the second–order electoral event and thus discourage the individual from voting, decreasing participation in the second–order election. I investigated this assumption by comparing the 2009 European Parliament election and the previous national parliamentary election in the EU member states. I distinguished between electoral differences in the formal rules, such as a distinct formula or a higher magnitude, and differences in the vote options, such as greater fragmentation and lower polarization.

6.1.1   Electoral differences and individual political knowledge

My basic research expectation first of all implies that electoral differences reduce the voter's understanding of the European election. Assuming that political knowledge increases this understanding, I began by investigating the voter's political knowledge. Table 6.1.1 provides an overview of the hypotheses and findings concerning the voter's political knowledge in the context of electoral differences.

Political knowledge increases the voter's awareness of the electoral event, for example in terms of the election campaign, as well as of her political preferences and the political alternatives provided by the actors contesting the election. In the context of electoral differences, political knowledge enables the voter to perceive such differences and to overcome their consequences for the electoral event as well as for the institution elected. For example, a distinct formula increases the relevance of parties in the European election and causes a more indirect representation of the voter by parties instead of directly elected incumbents in the EP. To understand this greater relevance of parties and to overcome the more indirect representation,

the voter needs to know the ballot formulas employed in the national and European elections and how these formulas affect the electoral events.

Table 6.1.1: Overview of hypotheses and findings, concerning political knowledge

Chapter 3: The voter's domestic perspective on the EU

    iH-1: *The voter's European knowledge is lower than domestic knowledge.*
      Accepted: European knowledge is lower than to domestic knowledge.

    iH-2: *Domestic knowledge is a primary source of European knowledge.*
      Accepted: Domestic knowledge is the best explanans for European knowledge.

    iH-3: *One facet of European knowledge increases the other facet.*
      Partial acceptance: Ideological European knowledge increases factual European knowledge.

    Conclusion: The voter employs a domestic perspective on the EU.

Chapter 4: Electoral differences and the voter's European knowledge

    Modified cH-1: *A distinct formula reduces the voter's factual European knowledge.*
      clH-1: *A distinct formula weakens the positive effect of the voter's factual domestic knowledge on factual European knowledge.*
      clH-3: *A distinct* formula *weakens the positive effect of the voter's ideological European knowledge on factual European knowledge.*
      Partial acceptance: A distinct formula causes a failed resort to ideological European knowledge.

    Modified cH-2: *A higher magnitude reduces the voter's factual European knowledge.*
      clH-2: *A higher* magnitude *weakens the positive effect of the voter's factual domestic knowledge on factual European knowledge.*
      clH-4: *A higher* magnitude *weakens the positive effect of the voter's ideological European knowledge on factual European knowledge.*
      Partial acceptance: A higher magnitude decreases factual European knowledge, irrespectively of further political knowledge.

    Modified cH-3: *Greater fragmentation reduces the voter's ideological European knowledge.*
      clH-5: *Greater* fragmentation *weakens the positive effect of the voter's ideological domestic knowledge on ideological European knowledge.*
      Accepted: Greater fragmentation causes a failed resort to ideological domestic knowledge.

    Modified cH-4: *Lower polarization reduces the voter's ideological European knowledge.*
      clH-6: *Lower* polarization *weakens the positive effect of the voter's ideological domestic knowledge on ideological European knowledge.*
      Accepted: Lower polarization causes a failed resort to ideological domestic knowledge.

    Conclusion: Electoral differences reduce European knowledge due to a failed domestic perspective.

While electoral differences necessitate better political knowledge about the EU, such knowledge is secondary to knowledge of domestic politics (iH-1). Because of the EU's lower salience, it is rational for the voter to make little investment in European knowledge. As a consequence, she knows little about the EU, its political system and the idea of European integration. Instead, the multi–level structure – the domestic and European levels – enables the voter to employ a domestic perspective on the EU. That is, she resorts to political knowledge acquired on the domestic level to better understand the EU and the European election (iH-2 and iH-3).

But in the context of electoral differences, the voter's European knowledge is systematically lower. Such differences cause a failure of the domestic perspective on the EU. This domestic perspective depends on factors at its level of origin, distinct from the European one. For example, electoral differences in the formal rules reduce the voter's factual knowledge about the EU and

its political system. A higher district magnitude in the European than in the national election increases the number of actors contesting the European electoral district. In contrast, the voter's domestic perspective provides information about a smaller district with fewer actors contesting the national election. Consequently, she needs further information about the additional actors in her European electoral district. But acquiring such knowledge is not rational, due to its secondary nature. Instead, the voter remains less informed, reducing her ability to learn more about the EU and to better understand the European election (cH-2).

Such negative effects of electoral differences on the individual European knowledge mainly derive from the reduced ability to employ political knowledge acquired on the domestic level as a proxy for the EU. That is, electoral differences cause reliance on such political knowledge to be less useful for improving European knowledge. For instance, a distinct formula implies that parties are more important in the European election and that the voter's representation by parties instead of directly elected incumbents in the EP is less direct. Resorting to ideological knowledge about the idea of European integration, accumulated by observing individual political candidates on the domestic level, is less appropriate for learning more about the parties' political behaviour in the EU. It prevents the voter from interpreting the parties' behaviour accurately and thus from better understanding the EU, its political system and its election (clH-3).

Likewise, a higher number of vote options in the European than in the national election reduce the voter's familiarity with some of the contesting parties. Some of these parties are not represented in the national parliament and are thus less visible on the domestic level. The voter knows little about such additional parties in the European election, nor about their ideological behaviour on the domestic left–right continuum. Consequently, she cannot resort to ideological domestic knowledge to improve her understanding of the idea of European integration and to learn more about European ideology (clH-5).

Finally, the actors' lower diversity on European than on domestic ideology makes ideological knowledge about the domestic left–right continuum less appropriate for improving ideological knowledge about the idea of European integration. In general, such ideological domestic knowledge creates a basis for better understanding other political ideologies. But in the context of the actors' lower polarization on European ideology this basic grasp fails. Deriving from a much more contested domestic ideology, it suggests that the idea of European integration provides no further alternatives beyond an ongoing integration process, supported by most of the actors. This implies that ideological domestic knowledge is less useful for learning more about European integration (clH-6).

To summarize, my findings demonstrate, first, that the voter knows less about the EU than about domestic politics. Taking into account that greater knowledge has a mobilizing effect on voting, lower European knowledge reduces electoral participation, irrespective of electoral differences. Second, electoral differences reduce the voter's European knowledge, due to the failure of her domestic perspective on the EU. Resorting to political knowledge, acquired on the distinct domestic level, is less helpful. In short, electoral differences decrease the voter's European knowledge and thus her understanding of the EU and the European election. This lower understanding discourages her from casting a ballot for the EP, causing systematically lower participation in the European election.

6.1.2   Electoral differences and the individual likelihood of electoral participation

To overcome this lower understanding, the voter needs further political knowledge, explaining the electoral differences and their consequences for the European election and the EP. In other words, electoral differences increase the relevance of political knowledge. Table 6.1.2 lists the hypotheses and findings concerning the voter's likelihood of participating in the European election and the relevance of political knowledge in the context of electoral differences.

For instance, a distinct formula necessitates further political knowledge about the national formula, improving the voter's understanding of the European formula as well as of its consequences for the European election and the EP (cH-1). Greater knowledge about the national formula enables the voter to become aware of the distinct formula in the European election and to understand the greater relevance of parties as well as the more indirect representation in the EP. In other words, a distinct formula reduces participation in the European election. But greater political knowledge at least partly balances this negative influence (clH-9).

Likewise, greater fragmentation increases the relevance of political knowledge. The higher number of vote options in the European election necessitates further information about the additional parties and their ideological position on European integration. Consequently, the voter's ideological knowledge about the idea of European integration becomes more relevant to understanding these vote options and to find the actor that best represents her preferences in the EP and in EU politics (clH-11).

But electoral differences also cause greater knowledge to exert a demobilizing effect. As argued, most of the domestic actors are quite supportive of the European integration process, whereas the voter has more diverse preferences in regard to this ideology. This discrepancy between the actors' supportiveness and the voter's preferences implies that the voter lacks representation in the European election and the EP. Greater ideological knowledge increases the voter's awareness

of this lack. Being unrepresented by the contesting actors, she abstains from the poll. In other words, if the consequences of electoral differences are not in line with the voter's political preferences, greater political knowledge discourages her from participating in the European election (clH-12).

Table 6.1.2: Overview of hypotheses and findings, concerning electoral participation

Chapter 5: Electoral differences and electoral participation

iH-4: *Greater factual European knowledge increases the voter's likelihood of participating in the European election.*
Accepted: Greater factual European knowledge mobilizes the voter's participation.

iH-5: Greater *factual domestic knowledge increases the voter's likelihood of participating in the European election.*
Accepted: Greater factual domestic knowledge mobilizes the voter's participation.

iH-6: *Greater ideological European knowledge reduces the voter's likelihood of participating in the European election.*
Accepted: Greater ideological European knowledge demobilizes the voter's participation.

iH-7: Greater *ideological domestic knowledge increases the voter's likelihood of participating in the European election.*
Rejected: Ideological domestic knowledge does not impact the voter's participation.

Conclusion: The lower European knowledge decreases the voter's participation in the European election.

cH-1: *A distinct formula reduces the voter's likelihood of participating in the European election.*
clH-7: *A distinct formula strengthens the positive effect of factual European knowledge on the voter's likelihood of participating in the European election.*
clH-9: *A distinct formula strengthens the positive effect of factual domestic knowledge on the voter's likelihood of participating in the European election.*
Partial acceptance: A distinct formula increases the relevance of factual domestic knowledge.

cH-2: *A higher magnitude reduces the voter's likelihood of participating in the European election.*
clH-8: *A higher magnitude strengthens the positive effect of factual European knowledge on the voter's likelihood of participating in the European election.*
clH-10: *A higher magnitude strengthens the positive effect of factual domestic knowledge on the voter's likelihood of participating in the European election.*
Rejected: A higher magnitude has no effect on the voter's likelihood of participating.

cH-3: *Greater fragmentation reduces the voter's likelihood of participating in the European election.*
clH-11: *Greater fragmentation weakens the negative effect of ideological European knowledge on the* voter's *likelihood of participating in the European election.*
Accepted: Greater fragmentation strengthens the relevance of ideological European knowledge.

cH-4: *Lower polarization reduces the voter's likelihood of participating in the European election.*
clH-12: *Lower polarization causes the negative effect of ideological European knowledge on the voter's likelihood of participating in the European election.*
Accepted: Lower polarization causes those with greater ideological European knowledge to abstain from the European election.

Conclusion: Electoral differences increase the relevance of political knowledge on the voter's participation in the European election.

In conclusion, electoral differences reduce the voter's likelihood of casting a ballot for the EP. First of all, such differences diminish her European knowledge. Taking into account that political knowledge is a multiplier for electoral participation, the voter's likelihood of casting a ballot is systematically lower. Second, electoral differences negatively affect electoral participation, mainly due to the voter's lower understanding of the electoral event. On the one hand, electoral

differences increase the relevance of political knowledge for overcoming their consequences and thus for obtaining a better understanding of the European election. On the other hand, electoral differences cause higher political knowledge to have a demobilizing effect on voting, increasing the voter's awareness of undesirable consequences.

6.2   Differences in electoral procedures and second–order elections

With some care, these findings on electoral differences in the 2009 European election can be generalized to multi–level political systems and their first– and second–order elections.[53] The lower salience of second–order politics implies that the individual is less familiar with this second–order level than with the first–order one. Instead of becoming better informed, the individual employs a first–order perspective, resorting to political knowledge acquired on the first–order level. But because of differences in the electoral procedures, this strategy fails and the individual knows systematically less about the second–order level, reducing her understanding of the second–order election. As a consequence of this lower understanding, she is less likely to cast a ballot for the second–order institution, reducing electoral participation.

Figure 6.2 visualizes the various effects of differences in the electoral procedures on the individual and her likelihood of voting in the second–order election. Its upper left side shows differences in the electoral procedures between first– and second–order elections. It distinguishes between differences in the formal rules, that is, in the electoral systems, and differences in the vote options among which the individual can choose in both elections.

The lower left part of Figure 6.2 illustrates individual political knowledge. It combines different facets, in terms of factual knowledge about the first– and second–order political systems and their formal electoral rules, as well as in terms of ideological knowledge about the primary ideologies contested by the actors in both elections. In general, political knowledge increases the individual likelihood of voting in first– as well as in second–order elections. It enables the individual to cast a ballot and mobilizes her to do so, as shown in the lower part of the figure.

But, in the context of differences in the electoral procedures, individual political knowledge about the second–order level is systematically lower. Due to distinct electoral procedures, an individual's first–order perspective fails, being less appropriate to improve her second–order knowledge, as illustrated on the left side of Figure 6.2. Such differences reduce the voter's ability

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53 This generalization has to be handled with care for several reasons. For example, there are a range of second–order elections – European, communal, local elections, and so on – causing various differences in the electoral procedures. Moreover, the research population used in this study, i.e. (national) voters, is not necessarily a random subsample of all eligible voters, as indicated in Chapter 2.

to resort to political knowledge acquired on the first–order level, and thus reduce her understanding of the second–order level. Taking into account that political knowledge both enables the individual to participate and mobilizes her to do so, the negative effects of differences in the electoral procedures on political knowledge imply, in the first instance, lower participation in the second–order election.

Figure 6.2: Differences in the electoral procedures and individual participation in the second–order election
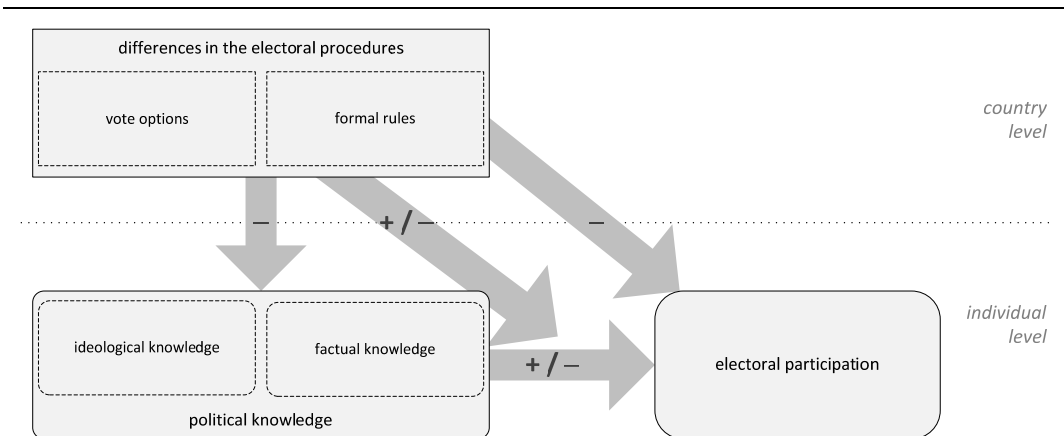
Moreover, differences in the electoral procedures reduce the individual likelihood of voting in the second–order election, as indicated by the connection down from the differences in the electoral procedures to electoral participation in Figure 6.2. Relating to the individual understanding, such differences affect the role of political knowledge on participation in the second–order election. On the one hand, differences in the electoral procedures increase the relevance of political knowledge. Such differences make it necessary to gain awareness of them and to overcome their consequences for the second–order electoral event. On the other hand, differences in the electoral procedures cause political knowledge to have a demobilizing effect. Increasing the individual understanding of the differences' consequences, political knowledge encourages the individual to abstain from the poll if these consequences are not in line with her political preferences.

In sum, differences in the electoral procedures between first– and second–order elections matter: they reduce individual political knowledge about the second–order level, implying lower individual understanding of the second–order election. As a consequence, the individual is less likely to cast a ballot for the second–order institution, causing systematically lower participation in the second–order election, compared to its first–order counterpart.

6.3   Some final conclusions

I investigated a basic assumption of the second–order election theory: that differences in the electoral procedures of first– and second–order elections reduce participation in the latter. My primary research aim was to demonstrate this assumption and to provide a first insight into how such differences affect the individual. I showed that distinct electoral procedures reduce individual knowledge about the second–order level and thus diminish individual understanding of the second–order electoral event. Hence the individual is less likely to vote, causing systematically lower electoral participation in the second–order election. However, the present book provides only a first insight into the concept of differences in the electoral procedures. This section draws some final conclusions, critically discussing several drawbacks of my approach, as well as some unexpected findings. In this context, I identify further research avenues in regard to differences between the different levels of a multi–level political system. Finally, I highlight some practical conclusions about individual participation in the European Parliament election, implied by my findings.

Let me begin with a critical review of the individual approach to political knowledge, although it was not at the heart of my research. First, I should note that the explanatory power of the estimated individual models of factual and ideological knowledge about the EU, discussed in Chapter 3, was low. This highlights the need to develop better–fitting models of such second– order knowledge to improve our research understanding. Moreover, the concept of individual duration in the EU necessitates further research which, to my knowledge, has not so far been undertaken. But restricting an individual's ability to accumulate political experience not only by her age but also by her country's (political) history is much more appropriate for capturing such individual political experiences as a legal participant in a political system like the EU.

On the country level, I showed that differences in the electoral procedures reduce individual political knowledge about the EU. However, this finding might only be the start of exploring differences between the first– and second–order levels in greater detail. Besides the electoral differences examined in this study, further differences in the electoral procedures exist, such as variations in voting ages in the first– and second–order elections. Then, there are differences other than those in the electoral procedures that should be investigated in regard to individual political knowledge about the second–order level. For example, one might think about how the bicameral structure of the EU affects the political knowledge of an individual in a unicameral nation–state. Finally, further research should focus on how the individual perceives such differences between the first– and the second–order level over time, employing a longitudinal approach.

Furthermore, my analysis showed that factual knowledge about the first–order domestic system is a primary determinant of second–order factual knowledge. Interestingly, this positive effect remains stable, irrespective of electoral differences. This finding is counterintuitive to my concept of differences in the formal electoral rules, which expected such differences to reduce the utility of first–order knowledge in learning more about the second–order level. This necessitates further research, for example to measure individual factual knowledge about the electoral rules in ways more closely related to the electoral systems.

In regard to the individual likelihood of participating in the European election, my analysis found little evidence for any effect from a distinct district magnitude. In the 2009 EP election at least, a higher district magnitude in the European than in the national election had no influence on individual participation. This lack of effect might be due to the low visibility of the district magnitude in the election campaign as well as at the poll, as argued in Chapter 2. However, the absence of an effect contradicts cross–national research on the size of the electoral district and requires further investigation.

The concept of electoral differences describes a wide field of distinctions between the first– and the second–order level, opening a broad prospect of further research avenues. The approach of differences between the national and the European election should be transferred to other types of second–order elections, for example communal or regional ones, to verify my findings. Similarly, it should be related to other forms of individual political behaviour. For instance, one might think about how differences between a specific first– and second–order institution, such as parliament, affect an individual's trust in the second–order institution, or how differences in political structures affect an individual's interest in second–order politics.[54] Finally, while the various correlations of electoral differences and their effects were briefly introduced in Chapter 2, investigation of them was beyond the scope of this study.

Overall, I have shown that differences in the electoral procedures matter, reducing individual political knowledge and affecting individual electoral behaviour. My findings demonstrate the second–order assumption on differences in the electoral procedures that initiated my study. They hold implications for future research on multi–level political systems and individual perceptions of multi–level structures. Differences in political systems should be taken into account more thoroughly to improve our research understanding of distinct individual political behaviour on different political levels.

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54 As shown in Chapter 3, the voter's interest in the campaign of the European election decreases her ideological knowledge about the idea of European integration, which might be explained by differences in the electoral procedures, e.g. in regard to the vote options and the contested ideologies.

Finally, this study suggests some practical consequences for the second–order European Parliament election. For example, the actors' low diversity on European integration causes a lack of individual representation on the European level. To ensure high electoral participation and citizens' inclusion in EU politics, domestic actors should offer more diverse approaches to the European integration process, providing more political alternatives to their citizens. In this regard, the 2014 European Parliament election tends to support my findings. In some of the EU member states the ongoing trend of decreasing turnouts was interrupted and participation in the 2014 European election slightly increased. In this context, one might think about, for example, the Alternative für Deutschland (AfD) in Germany, which successfully contested the European Parliament election for the first time, or the UK Independence Party (UKIP) in Great Britain, which significantly improved its electoral result compared to previous elections. The crucial aspect of such parties is less their Euro–scepticism *per se* than the fact that they provide political alternatives to the citizens, with policies opposing most of the other parties. This increased electoral participation in Germany and Great Britain in 2014, as my findings from the 2009 European election anticipate.

Moreover, my analysis has highlighted the fact that the process of harmonizing electoral rules among the EU member states contradicts the democratic prerequisite of maximizing electoral participation. As shown, the standardization of the ballot formula for the EP causes differences in the electoral procedures in some countries, systematically reducing electoral participation. For example, replacing the national majoritarian ballot formula in Great Britain by a proportional one for the European Parliament election in 1999 reduced electoral participation. The electoral difference encourages British citizens to abstain from voting for the European Parliament, as shown. This results in a systematic underrepresentation of British voters in the EP and thus in EU politics. In other words, harmonizing the electoral rules sets up institutional barriers that diminish the legitimization of the EP as well as the inclusion of citizens in the EU, at least while national electoral rules remain distinct.

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A.   Appendix

The appendix discusses the data employed as well as some additional estimations and findings. The first section focuses on the data used in this book. It starts with an overview of the individual data employed, derived from my underlying research population. It then goes on to examine the operationalization of my variables, discussing the voter's participation in the European election as well as her knowledge components, the electoral differences, and the additional individual–level determinants. The second section presents some additional estimations and findings in regard to the multi–level approaches of Chapters 3 to 5. I reinvestigate the apparently absent cross–level interaction effects between electoral differences in the formal rules and factual domestic knowledge on factual European knowledge, as examined in Chapter 4. Likewise, I reinvestigate the missing influence of a higher magnitude on the voter's likelihood of participating in the European election, discussed in Chapter 5. In addition, the second section examines the random–effect ANOVA–models as well as the random slopes of the individual–level determinants in the final estimations of Chapters 4 and 5.

A.1   The data

A.1.1   The research population

The individual–level data employed in this book are from the European Parliament Election Study – Voter Study (EES 2009). It covers the citizens of the 27 EU member states that took part in the 2009 European election, excluding residents of Northern Ireland. This restriction determines the macro population of my approach: the 26 EU member states plus Great Britain. The individual data are drawn from a post–election survey, following the 2009 European election. In total, the EES (2009) includes 27,069 valid interviews, out of which 2,744 respondents are non–native citizens. Such non–native citizens are faced by a double problematic of electoral differences: balancing the formal rules and the vote options of the European election with the national election of their country of residence as well as of their country of origin. Consequently, I exclude these citizens from the analysis.

The remaining sample of 24,325 observations covers both citizens who participated in the previous national election and those who abstained. Because I am focusing exclusively on national voters, national non–voters are also excluded from the sample. To identify participants in the previous national election, I rely on the question: "Which party did you vote for at the

General Election of 2005?" (EES 2009, British Questionnaire: Q27). A respondent who mentions a party is kept and defined as a (national) voter. All other observations are dropped from the sample, decreasing its size to 17,047 observations. In addition, the operationalization of the individual–level variables, discussed below, yields another 4,816 drop–outs due to missing values. In total, the sample employed is based on 12,231 observations.

A.1.2 The voter's likelihood of participating in the European election and relative turnout

I use two different measurements relating to participation in the European election in my analyses: relative turnout (Chapter 2) and the voter's electoral participation (Chapter 5). Relative turnout depends on the ratio of turnouts in the European and the previous national election. Data for the national level are from the Parline Project (IPU 2011), while the turnout for the British national election of 2005 is taken from the UK Electoral Commission (2011). These turnouts in the national elections are displayed in the second column of Table A.1.2-1. The turnouts in the 2009 European election are from the European Parliament Archive (2011) and the UK Electoral Commission (2011) for Great Britain, shown in the third column of Table A.1.2-1.[55] The relative turnout in each of the EU member states is operationalized by dividing the turnout in the 2009 European Parliament election by the turnout in the national election, as displayed in the fourth column of the table.

On the individual level, the voter's participation in the European election is assessed by the question "A lot of people abstained in the European Parliament elections of June 4, while others voted. Did you cast your vote?" (EES 2009, British Questionnaire: Q24). Respondents who report voting are coded 1; those who indicate no vote cast are coded 0. Out of the 12,231 observations with valid information on all individual–level variables employed, 9,635 respondents (78.8%) report a ballot cast in the 2009 European election, as displayed in Table A.1.2-2.

A comparison of the average relative turnout (displayed in the bottom line of Table A.1.2-1) with the voter's electoral participation (in Table A.1.2-2) indicates a bias towards over–reporting individual participation in the European election. According to the EES (2009), about 78.8% of voters report a ballot cast for the EP. Yet the average relative turnout is 64.4%, distinctly lower than the individual–level data would suggest. Over–reporting of individual electoral participation in social surveys is a well–known "phenomenon called participatory bias" (Rogers and Aida 2013:

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55 National and European turnouts are drawn from the electoral registers.

Table A.1.2-1: Turnouts in the national and the European election

	year of previous national election	national turnout	European turnout	relative turnout
Austria (AT)	2008	78.81	45.97	0.583
Belgium (BE)	2007	91.08	90.93	0.998
Bulgaria (BG)	2005	55.76	38.99	0.699
Cyprus (CY)	2006	89.00	59.40	0.667
Czech Republic (CZ)	2006	64.47	28.20	0.437
Denmark (DK)	2007	86.59	59.54	0.688
Estonia (EE)	2007	61.91	43.90	0.709
Finland (FI)	2007	65.02	40.30	0.620
France (FR)	2007	60.42	40.63	0.672
Germany (DE)	2005	77.73	43.30	0.557
Great Britain (GB)	2005	65.30	34.49	0.528
Greece (EL)	2007	74.14	52.61	0.710
Hungary (HU)	2006	67.57	36.31	0.537
Ireland (IL)	2007	67.03	58.64	0.875
Italy (IT)	2008	80.51	65.05	0.808
Latvia (LV)	2006	60.98	53.70	0.881
Lithuania (LT)	2008	48.59	20.98	0.432
Luxembourg (LU)	2009	90.93	90.75	0.998
Malta (MT)	2008	93.30	78.79	0.844
Netherlands (NL)	2006	80.35	36.75	0.457
Poland (PL)	2007	53.88	24.53	0.455
Portugal (PT)	2005	64.26	36.78	0.572
Romania (RO)	2008	39.20	27.67	0.706
Slovakia (SK)	2006	54.67	19.64	0.359
Slovenia (SI)	2008	63.10	28.33	0.449
Spain (ES)	2008	75.32	44.90	0.596
Sweden (SE)	2006	81.99	45.53	0.555
total		70.07	46.17	0.644

sources: national turnout: IPU (2011); European turnout: European Parliament Archive (2011); for Great Britain: UK Electoral Commission (2011).

notes: turnouts on both levels depend on the electoral registers.

506), stemming from respondents' assumptions about social desirability (Silver et al. 1986; Katz and Katz 2010; Ansolabehere and Hersh 2012). Interestingly, over–reporting is higher for the European than for the national election. There may be several reasons for this. The national election lies further in the past than the European one, which might affect respondents' memory and thus reduce reported participation in the previous national election. Moreover, the question wordings differ. While for the European election, respondents were asked if they voted (EES 2009, British Questionnaire: Q24), responses to the national election refer to a party (EES 2009, British Questionnaire: Q27). Finally, social desirability exerts more power in regard to the European election in a European survey, as this was.

Table A.1.2-2: Frequencies employed on the voter's participation in the European election

yes	9,635 78.78%
no	2,596 21.22%
total	12,231

source: EES (2009), Q24.

A.1.3 The voter's political knowledge components

The voter's political knowledge is assessed using four measurements, covering factual and ideological knowledge about the European and domestic levels. This section discusses the operationalization of these four measurements. Because factual and ideological knowledge components on both levels are operationalized simultaneously, I start by discussing the measurements of factual knowledge on the domestic and the European level. I then investigate the operationalization of the ideological knowledge components.

a) Factual knowledge

The voter's factual knowledge is operationalized by counting the number of statements about the domestic and European political systems (listed in Table 3.1.1) which are correctly responded to. Survey respondents were asked to evaluate each statement as true or false. Correct responses are coded 1, incorrect 0.[56] Afterwards, I add up the responses to operationalize the voter's factual knowledge (Bennett 1989; Zaller 1992; Karp et al. 2003; Luskin and Bullock 2004; Gherghina 2010; Wagner 2012). This process is carried out separately for factual domestic knowledge, based on the statements of the left side of Table 3.1.1, and factual European knowledge, shown on the right side. Both measurements range between 0 and 3. A value of 0 means that none of the statements was correctly responded to, implying that the voter has no factual knowledge about that level. A value of 3 means that all statements have been correctly responded to, demonstrating the highest possible factual knowledge. Table A.1.3a-1 displays the frequencies of factual domestic knowledge on the left side and factual European knowledge on the right side.

Table A.1.3a-1: Frequencies employed on the voter's factual knowledge

	factual domestic knowledge		factual European knowledge	
	frequencies	percent	frequencies	percent
0. low	867	7.09	1,278	10.45
1	3,072	25.12	3,161	25.84
2	4,540	37.12	4,854	39.69
3. high	3,752	30.68	2,938	24.02
total	12,231	100.00	12,231	100.00

source: EES (2009), Q93 to Q98.

In regard to the measurement of factual European knowledge, the statements employed necessitate an additional remark. The EES (2009) includes a seventh political knowledge

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56 The answer option "don't know", provided in the EES (2009), is coded as an incorrect response, although there is a difference between a wrong answer, which implies being misinformed, and not knowing the correct answer, which implies being uninformed (Barabas 2002; Wagner 2012). However, my research interest lies in an informed voter, so the distinction is unimportant here.

statement, referring to the EU: "Switzerland is a member of the EU" (EES 2009, British Questionnaire: Q92). However, to ensure comparability between factual domestic and factual European knowledge in Chapter 3, I employ only three statements for the European level, as with the domestic one. The decision to exclude the statement about Swiss membership is based on two reasons. First, it is quite similar to the statement about the total number of EU member states (Q93). Second, the distribution of correct responses on Q92 is quite similar to that on Q94 (the country–specific number of EP members), as shown in Table A.1.3a-2.

Table A.1.3a-2: Correct responses to the excluded political statement about the EU

	correct response	incorrect response	n
"Switzerland is a member of the EU." (Q92)	8,671 70.98%	3,545 29.02%	12,216
"Every country in the EU elects the same number of representatives to the European Parliament." (Q94)	8,861 72.45%	3,370 27.55%	12,231

source: EES (2009).

b) Ideological knowledge

The operationalization of ideological knowledge depends on respondents' placement of parties on the left–right and European integration continuums, as displayed in Table 2.2.2b. Using parties to approximate ideological knowledge necessitates two comments. First, the operationalization of the voter's ideological knowledge by party placements implies that such knowledge reflects the respondent's overall knowledge about the underlying ideology. Second, to operationalize ideological knowledge, I take into account only those parties that were represented in the national parliament or the EP in 2009. This suggests that these parties describe the relevant range of political alternatives. The decision to employ only those parties represented in at least one of both parliaments is based on my definition of the vote options, covering those contesting actors that have a realistic chance of gaining a parliamentary seat in an election.

Turning to the details, ideological knowledge (k_i) of a voter (i) on a single ideological dimension is operationalized in a four–step process. First, I calculate the individual difference between the voter's placement ($d_{i_{n,c}}$) of each individual party (n) in country (c) and the sample mean placement of this party ($\overline{d_{n,c}}$). In a second step, I take the absolute individual average difference of all party placements. Third, the logarithm is taken[57]:

$$\text{a voter's ideological knowledge } k_i = \log\left\{\left[\frac{1}{n_i}\sum_{n=1}^{n}\left(|d_{i_{n,c}} - \overline{d_{n,c}}|\right)\right] + 1\right\}$$

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57 Before taking the logarithm, 1 is added to ensure that values smaller than 1 remain positive.

Taking the logarithm is due to strongly right–skewed distributions of the raw indexes on both ideological domestic and ideological European knowledge, illustrated in the upper part of Figure A.1.3b. This skewedness on a single index implies that while most of the respondents placed the parties quite close to the sample means – that is, producing a small average difference – some respondents score very highly, having a large average difference. Taking the logarithm de-skews the distributions of both indexes on ideological knowledge to some degree, as is obvious in the lower part of the figure.

Figure A.1.3b: The logarithm of ideological knowledge indexes
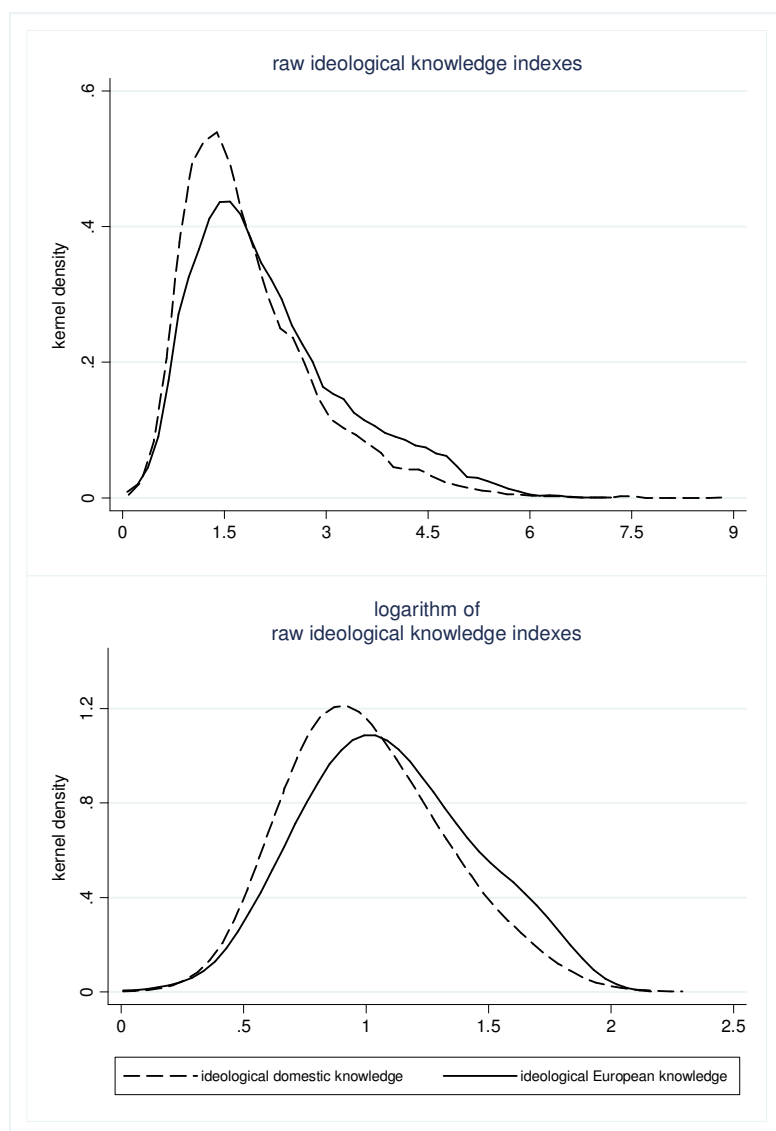
source: EES (2009).

The fourth step is to invert the logarithm of the measurement (not shown in the formula above). This ensures that a higher value refers to greater ideological knowledge. Finally, the measurement is standardized to a continuous range between 0 (low ideological knowledge) and 1 (high ideological knowledge) to simplify the comparison of ideological knowledge on both levels in Chapter 3. This process is repeated twice, once for ideological domestic knowledge, employing the domestic left–right continuum, and once for ideological European knowledge, using the European integration continuum. Table A.1.3b displays some basic statistics on the distributions of ideological domestic (first column) and ideological European knowledge (second column).

Table A.1.3b: Summary statistics on the voter's ideological knowledge

	ideological domestic knowledge	ideological European knowledge
mean	0.562	0.484
std. deviation	0.140	0.166
minimum	0	0
maximum	1	1
n	12,231	12,231

source: EES (2009), Q46f. and Q80f.

A.1.4   The electoral differences

a)   A distinct formula

The distinct formula concept is based on the systematic comparison of the ballot formulas employed in the 2009 European election and the previous national parliamentary election, shown in Figure 2.2.1a. Data for this comparison are from the Comparative Political Data Set III (CPDS–III 2009) for the national election, and from the EC Council (2002) for the European election. Countries that replace their national ballot formula for the European election are coded 1: France and Great Britain switch from a majoritarian ballot formula in the national election to a proportional formula for the EP. Germany, Hungary, Lithuania and Romania replace their national mixed formula by a proportional one in the European election. The remaining 21 EU member states employ a similar formula in the national and the European election, coded 0.

b)   A higher magnitude

A higher magnitude depends on the ratio of the average district magnitudes in the European election, shown in the second column of Table A.1.4b, divided by the average district magnitudes of the national elections, shown in the first column. The data are taken from the Database of Political Institutions (DPI 2010) for the national election, and from Fehndrich et al. (2011) for the

European election. The third column of Table A.1.4b displays the ratio of the average district magnitudes.

Table A.1.4b: Average district magnitudes in the national and the European election

	national magnitude	European magnitude	ratio of magnitudes	a higher magnitude
Austria (AT)	20.30	17.00	0.837	− 0.177
Belgium (BE)	13.63	7.33	0.538	− 0.620
Bulgaria (BG)	7.74	17.00	2.196	0.787
Cyprus (CY)	13.30	6.00	0.451	− 0.796
Czech Republic (CZ)	14.29	22.00	1.540	0.431
Denmark (DK)	10.50	13.00	1.238	0.214
Estonia (EE)	9.20	6.00	0.652	− 0.427
Finland (FI)	13.33	13.00	0.975	− 0.025
France (FR)	1.00	9.00	9.000	2.197
Germany (DE)	1.90	6.19	3.257	1.181
Great Britain (GB)	1.00	72.00	72.000	4.277
Greece (EL)	5.40	22.00	4.074	1.405
Hungary (HU)	13.82	22.00	1.592	0.465
Ireland (IL)	4.00	3.00	0.750	− 0.288
Italy (IT)	22.50	14.40	0.640	− 0.446
Latvia (LV)	20.00	8.00	0.400	− 0.916
Lithuania (LT)	1.90	12.00	6.316	1.843
Luxembourg (LU)	15.00	6.00	0.400	− 0.916
Malta (MT)	5.00	5.00	1.000	0.000
Netherlands (NL)	150.00	25.00	0.167	− 1.792
Poland (PL)	11.20	3.85	0.343	− 1.069
Portugal (PT)	10.50	22.00	2.095	0.740
Romania (RO)	1.00	33.00	33.000	3.497
Slovakia (SK)	150.00	13.00	0.087	− 2.446
Slovenia (SI)	10.00	7.00	0.700	− 0.357
Spain (ES)	6.70	50.00	7.463	2.010
Sweden (SE)	11.60	18.00	1.552	0.439
total	20.178	16.769	5.676	0.341

sources: national magnitude: DPI (2010); European magnitude: Fehndrich et al. (2011).

This ratio of the average district magnitudes is strongly right–skewed, as shown in the upper part of Figure A.1.4b. We see from Table A.1.4b that the comparatively high ratios of Great Britain (72) and Romania (33) stand out. Both countries replace their single–member districts for the national election by one nationwide district for the European election, as discussed in Chapter 2. In order to weaken the skewedness, the logarithm of the ratio is taken, illustrated in the lower part of Figure A.1.4b. Afterwards, 1 is subtracted, so that an equal district magnitude in the national and the European election is set to 0, defining my final measurement of a higher magnitude, shown in the fourth column of Table A.1.4b.

Figure A.1.4b: The logarithm of the ratio of district magnitudes
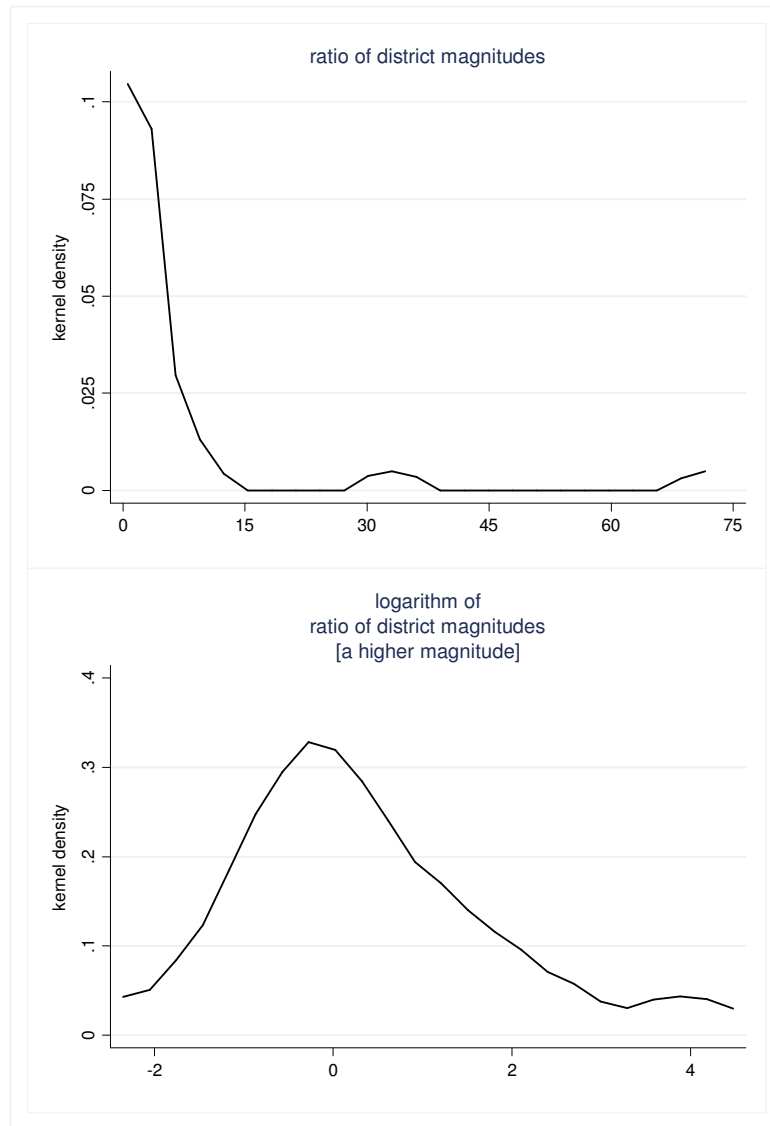
sources: DPI (2010) and Fehndrich et al. (2011).

c)   Greater fragmentation

Greater fragmentation depends on the ratio of the absolute number of parties in the EP divided by the absolute number of parties in the national parliaments, shown in Table A.1.4c. Data are from the Parline Project (IPU 2011) for the national parliaments and from the European Parliament Archive (2011) for the EP. I employ data from the UK Electoral Commission (2011) to restrict the parties in the EP as well as in the House of Commons to Great Britain (that is, to exclude Northern Ireland). The final measurement of greater fragmentation is operationalized by

subtracting 1 from the ratio, so that an equal number of parties in both parliaments is set to 0, displayed in the third column of Table A.1.4c.

Table A.1.4c: Number of parties in the national and the European Parliament

	national parliament	European parliament	greater fragmentation
Austria (AT)	5	5	0.000
Belgium (BE)	11	12	0.091
Bulgaria (BG)	7	6	− 0.143
Cyprus (CY)	6	4	− 0.333
Czech Republic (CZ)	5	4	− 0.200
Denmark (DK)	8	6	− 0.250
Estonia (EE)	6	5	− 0.167
Finland (FI)	9	6	− 0.333
France (FR)	12	8	− 0.333
Germany (DE)	6	6	0.000
Great Britain (GB)	6	8	0.333
Greece (EL)	5	6	0.200
Hungary (HU)	5	4	− 0.200
Ireland (IL)	7	5	− 0.286
Italy (IT)	8	6	− 0.250
Latvia (LV)	7	6	− 0.143
Lithuania (LT)	11	6	− 0.455
Luxembourg (LU)	5	4	− 0.200
Malta (MT)	2	2	0.000
Netherlands (NL)	10	8	− 0.200
Poland (PL)	5	4	− 0.200
Portugal (PT)	5	5	0.000
Romania (RO)	5	6	0.200
Slovakia (SK)	6	6	0.000
Slovenia (SI)	7	5	− 0.286
Spain (ES)	10	6	− 0.400
Sweden (SE)	7	8	0.143
total	6.889	5.815	− 0.126

sources: national parliament: IPU (2011); EP: European Parliament Archive (2011); for Great Britain: UK Electoral Commission (2011).

d)   Lower polarization

The measurement of lower polarization depends on the ratio of the parties' polarization on the idea of European integration and on the domestic left–right continuum. To operationalize polarization on a single ideology, I employ survey respondents' placements of the parties on each ideological continuum, based on the EES (2009) questions shown in Table 2.2.2b. The parties used are restricted to those represented in at least one of both parliaments, according to the vote options in at least one of both elections.

The operationalization of the parties' polarization (i_c) on a single ideological continuums is based on an approach of Dalton (2008). In a first step, I calculate the differences between each party's sample mean (p_c) and the overall sample mean of all parties ($\overline{p_c}$), separately for each EU member state (c), and divide these differences by the mid–point of the underlying scale (5). Second, the

average squared sum is taken and divided by the number of employed parties (n_c). Finally, I take the square root, defining the parties' ideological polarization on a single ideological continuum:

$$\text{ideological polarization } (i_c) = \sqrt{\frac{1}{n_c} \sum_{c=1}^{c} \left(\frac{(p_c - \overline{p_c})}{5} \right)^2}$$

Table A.1.4d lists the parties' polarization on the domestic left–right continuum (first column) and on the European integration continuum (second column). The values of polarizations on both ideologies are not very meaningful on their own. But in a cross–national comparison a single polarization index displays "a measure of the standard deviation of a distribution" (Dalton 2008: 906), reflecting the diversity of parties along a single ideological continuum.

Table A.1.4d: Polarization of parties in the national and the European election

	domestic left–right continuum	European integration continuum	lower polarization
Austria (AT)	0.362	0.382	− 0.055
Belgium (BE)	0.181	0.178	0.021
Bulgaria (BG)	0.451	0.109	0.759
Cyprus (CY)	0.479	0.114	0.762
Czech Republic (CZ)	0.475	0.196	0.588
Denmark (DK)	0.324	0.223	0.312
Estonia (EE)	0.237	0.106	0.553
Finland (FI)	0.357	0.272	0.237
France (FR)	0.499	0.254	0.491
Germany (DE)	0.392	0.198	0.494
Great Britain (GB)	0.197	0.205	− 0.039
Greece (EL)	0.436	0.300	0.312
Hungary (HU)	0.523	0.141	0.731
Ireland (IL)	0.221	0.198	0.105
Italy (IT)	0.386	0.130	0.664
Latvia (LV)	0.354	0.096	0.728
Lithuania (LT)	0.272	0.113	0.586
Luxembourg (LU)	0.345	0.315	0.088
Malta (MT)	0.482	0.126	0.739
Netherlands (NL)	0.304	0.215	0.293
Poland (PL)	0.448	0.181	0.597
Portugal (PT)	0.512	0.200	0.609
Romania (RO)	0.214	0.163	0.238
Slovakia (SK)	0.274	0.151	0.447
Slovenia (SI)	0.337	0.182	0.461
Spain (ES)	0.359	0.225	0.372
Sweden (SE)	0.444	0.386	0.132
total	0.365	0.198	0.416

source: EES (2009), Q46f. and Q80f.

To complete the operationalization of this electoral difference, I calculate the ratio of the parties' polarization on European integration, divided by their polarization on the domestic left–right continuum. I then subtract 1 from the ratio, so that an equal polarization on both continuums is set to 0, and invert the measurement to ensure that a higher value refers to lower polarization, displayed in the third column of Table A.1.4d.

A.1.5 The voter's individual determinants

a) The voter's political socialization

The voter's education is derived from a seven–point variable, based on the question "What is the highest level of education you have completed in your education?" (EES 2009, British Questionnaire: Q101). The EES (2009) provides a recoded version of this question, classifying respondents' highest educational degree according to the International Standard Classification of Education (ISCED 1997). A value of 0 means early childhood education or less, while a value of 6 indicates the highest possible educational degree. Table A.1.5a-1 reflects the distribution of the individual frequencies by the voter's education.

Table A.1.5a-1: Frequencies employed on the voter's education

	frequencies	percent
0. low	103	0.84
1	753	6.16
2	2,005	16.39
3	4,240	34.67
4	712	5.82
5	4,217	34.48
6. high	201	1.64
total	12,231	100.00

source: EES (2009), Q101.

The voter's gender is a dummy variable, based on the question "Are you male / female?" (EES 2009, British Questionnaire: Q102). It is 0 for a female respondent and 1 for a male respondent. Table A.1.5a-2 displays the distribution of the individual frequencies on gender.

Table A.1.5a-2: Frequencies employed on the voter's gender

	frequencies	percent
0. female	6,201	50.70
1. male	6,030	49.30
total	12,231	100.00

source: EES (2009), Q102.

The voter's duration covers the period of time an individual has been a legal participant in the EU, in terms of having the right to vote for the EP. It depends on two different characteristics, as discussed in regard to Figure 3.2.1. The first is an individual's age. This is taken from the question "What year were you born?" (EES 2009, British Questionnaire: Q103) and is operationalized by subtracting the individual's year of birth from the year of sampling (2009). The second characteristic is the length of a country's membership of the EU, based on data from the European Parliament Archive (2011). To operationalize the voter's duration, I count the years

since the individual respondent reached 18, the minimum voting age for the EP. If this total exceeds the length of a country's membership of the EU, duration is restricted to the length of the membership. Otherwise, the years since the respondent's age of majority define her duration. Table A.1.5a-3 displays some statistics relating to the distribution of duration. It ranges between 0 – implying that the voter reached 18 in 2009, the year of the European election under study – and 30 – indicating that the voter was at least 48 years old in 2009 and lived in one of the founding countries of the (forerunner of the) EU.

Table A.1.5a-3: Summary statistics on the voter's duration

mean	15.286
std. deviation	10.514
minimum	0
maximum	30
n	12,231

sources: individual age: EES 2009, Q103; country's length of membership
of the EU: European Parliament Archive (2011).

b)   The voter's political involvement

The voter's political interest in the European election is approximated by the question "Thinking back to just before the elections for the European Parliament were held, how interested were you in the campaign for those elections: very, somewhat, a little, or not at all?" (EES 2009, British Questionnaire: Q23). The measurement used ranges on a four–point scale between 0 (not at all interested) and 3 (very interested), as displayed in Table A.1.5b-1.

Table A.1.5b-1: Frequencies employed on the voter's interest in
the European election

	frequencies	percent
0. not at all interested	1,751	14.32
1	4,306	35.21
2	4,310	35.24
3. very interested	1,864	15.24
total	12,231	100.00

source: EES (2009), Q23.

The voter's attention to news counts the days per week on which the individual follows the news in the mass media. It is drawn from the question "In a typical week, how many days do you follow the news?" (EES 2009, British Questionnaire: Q7). It is an eight–point variable, ranging between 0 (never) and 7 (every day), as shown in Table A.1.5b-2. The measurement is strongly skewed towards the upper end of the scale: almost three quarters of the sample (74%) report attending to news daily. Nevertheless, it is a relevant determinant for the voter's European knowledge, as shown in Chapters 3 and 4.

Table A.1.5b-2: Frequencies employed on the voter's attention to news

	frequencies	percent
0. never	137	1.12
1	155	1.27
2	288	2.35
3	491	4.01
4	595	4.86
5	956	7.82
6	564	4.61
7. every day	9,045	73.95
total	12,231	100.00

source: EES (2009), Q7.

c)   The voter's political attitudes

The voter's partisanship covers individual support for particular political actors. It is approximated by the question "Do you consider yourself to be close to any particular party?" (EES 2009, British Questionnaire: Q87). Respondents who considered themselves as being "very close" or "fairly close" are defined as partisans, coded 1; all other respondents are coded 0. Table A.1.5c-1 displays the individual frequencies on the voter's partisanship.

Table A.1.5c-1: Frequencies employed on the voter's partisanship

	frequencies	percent
0. no	7,808	63.84
1. yes	4,423	36.16
total	12,231	100.00

source: EES (2009), Q87.

The voter's trust in EU institutions is a five–point variable, based on the question "For each of the following propositions, please indicate whether you agree or disagree with the following statements … You trust the institutions of the European Union" (EES 2009, British Questionnaire: Q41). It ranges between 0 (no trust) and 4 (high trust), as shown in Table A.1.5c-2.

Table A.1.5c-2: Frequencies employed on the voter's trust in EU institutions

	frequencies	percent
0. low trust	914	7.47
1	2,398	19.61
2	2,699	22.07
3	5,203	42.54
4. high trust	1,017	8.31
total	12,231	100.00

source: EES (2009), Q41.

A.2 Additional estimations and findings

A.2.1 Additional estimations on the voter's European knowledge

In the following, I focus once again on the effects of electoral differences on the voter's European knowledge. I start by briefly discussing the so–called (random–effect) ANOVA–models of European knowledge, providing an initial benchmark for the multi–level estimations employed in Chapters 3 and 4. I then reinvestigate factual European knowledge, examining the missing cross–level interaction effects exerted by electoral differences in the formal rules on factual domestic knowledge. Afterwards, I focus on the random slopes of individual–level variables on the voter's European knowledge components, according to the final estimations of Chapter 4.

a) The ANOVA–models of the voter's European knowledge components

In regard to the multi–level estimations of factual European knowledge, I briefly examine the ANOVA–model. It is an empty model of factual European knowledge which includes no explanatory variable. This empty model "is important because it provides the basic partition of the variability in the data between the two levels" (Snijders and Bosker 2004: 49; see also Hox 2002). The bottom lines of Table A.2.1a-1 display the variance components separately for the individual level (micro) and the country level (macro). Based on these components, the so–called Intra–Class–Coefficient (ICC) reflects the proportion of variance on the country level for the total variance of factual European knowledge (Ditton 1998; Hox 2002; Snijders and Bosker 2004). This ICC is about 0.075 for factual European knowledge. It implies that most of the variance in factual European knowledge is due to individual differences between the voters. In contrast, the variance between the EU member states is quite low. However, taking into account the fact that the final individual model, estimated in Chapter 3, explains only about 16.3% of the total variance in factual European knowledge, the multi–level approach employed helps to increase our understanding of the reasons behind the overall variance of such knowledge.

Table A.2.1a-1: ANOVA–model of the voter's factual European knowledge

dependent variable: factual European knowledge	
constant	1.7638***
	(0.0437)
n (micro)	12,231
n (macro)	27
variance component (micro)	0.817
variance component (macro)	0.052***
iterations	2

source: EES (2009).
notes: multi–level estimation with robust standard error in brackets below coefficient;
levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided t-test on coefficients,
χ^2-test on variance component).

Table A.2.1a-2 displays the ANOVA–model of ideological European knowledge. According to the variance components, the ICC of ideological European knowledge is about 0.088. Once again, most of the variance in ideological European knowledge occurs on the individual level. But the low explanatory power of the initial individual model of ideological European knowledge, estimated in Chapter 3, makes examination of variation between the EU member states even more important to improve our research understanding of individual ideological European knowledge.

Table A.2.1a-2: ANOVA–model of the voter's ideological European knowledge

dependent variable:	ideological European knowledge	
	constant	0.4754***
		(0.0094)
	n (micro)	12,231
	n (macro)	27
	variance component (micro)	0.025
	variance component (macro)	0.002***
	iterations	3

source: EES (2009).
notes: multi–level estimation with robust standard error in brackets below coefficient;
          levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided t-test on coefficients,
          χ^2-test on variance component).

b)   The voter's factual European knowledge and electoral differences
in the formal rules

As I found in Chapter 4, electoral differences in the formal rules have no influence on the voter's ability to resort to factual domestic knowledge to better understand the EU. The missing cross–level interaction effects disprove my first and second cross–level hypotheses. Instead, the findings suggest that even when the domestic level differs from the European one, knowledge about the domestic political system is still an appropriate proxy for the EU political system. To ensure that the missing effects are not caused by overlap with the cross–level interactions between electoral differences in the formal rules and ideological European knowledge, Table A.2.1b replicates the model laid out in Table 4.2.1b. It shows separate estimations for the cross–level interactions of electoral differences in the formal rules with ideological European knowledge in the first column and with factual domestic knowledge in the second column. Obviously, neither a distinct formula (clH-1) nor a higher magnitude (clH-2) affects the positive influence of factual domestic on factual European knowledge. This finding further demonstrates the missing effect, examined in Chapter 4. It implies that the voter's ability to resort to factual domestic knowledge is not put at risk by electoral differences in the formal rules, despite deriving from a different level.

Table A.2.1b: Multi–level model of the voter's factual European knowledge, a distinct formula and a higher magnitude

dependent variable: factual European knowledge

	Model I	Model II
interest in European election	0.0656***	0.0658***
	(0.0122)	(0.0123)
attention to news	0.0273***	0.0272***
	(0.0073)	(0.0074)
education	0.0877***	0.0880***
	(0.0088)	(0.0089)
gender	0.2528***	0.2531***
	(0.0245)	(0.0244)
duration	0.0097***	0.0096***
	(0.0012)	(0.0012)
ideological European knowledge	0.1546***	0.1004*
	(0.0565)	(0.0544)
distinct formula	− 0.3779***	
	(0.1206)	
higher magnitude	0.0701	
	(0.0428)	
factual domestic knowledge	0.3070***	0.3018***
	(0.0152)	(0.0183)
distinct formula (clH-1)		0.0346
		(0.0371)
higher magnitude (clH-2)		− 0.0048
		(0.0090)
constant	0.3083***	0.3421***
	(0.0770)	(0.0762)
distinct formula	0.0657	− 0.1678
	(0.1081)	(0.1095)
higher magnitude	− 0.0733**	− 0.0325
	(0.0307)	(0.0249)
n (micro)	12,231	12,231
n (macro)	27	27
R^2 (micro)	0.142	0.141
R^2 (macro)	0.255	0.255
variance component (micro)	0.680	0.680
variance component (macro)	0.065	0.066
iterations	26	21

sources: individual–level data: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011).

notes: multi–level estimation by HLM 7, with robust standard errors in brackets below coefficients; variance components and R^2 depend on fixed slope model; levels of significance: * $p<0.10$, ** $p<0.05$, *** $p<0.01$ (two–sided test).

c) *The random slopes of individual determinants in the final estimations of Section 4.2*

In regard to the final models of factual and ideological European knowledge, examined in Chapter 4, Tables A.2.1c-1 and A.2.1c-2 display the random slopes of individual determinants. That is, the tables show the variance components of significantly varying individual–level coefficients between the EU member states (Hox 2002; Snijders and Bosker 2004). In the final estimation on factual European knowledge, according to Table 4.2.1b, four of the individual–level determinants have varying effects between the EU member states, as displayed in Table A.2.1c-1. For example, the coefficients of the voter's political interest in the European election and the voter's attention

to news differ between the countries. Most interestingly, factual domestic knowledge has a significantly varying effect, which does not depend on electoral differences in the formal rules, as examined in Chapter 4. This highlights the need for further research, as suggested in my conclusions.

Table A.2.1c-1: Variance components of the final model of the voter's factual European knowledge

	var. comp.	d.f.	χ^2
interest in European election	0.0020***	26	51.71
attention to news	0.0008***	26	54.47
gender	0.0101***	26	67.28
factual domestic knowledge	0.0046***	24	68.49
constant	0.0576***	24	68.88
level–1, r	0.6730		

sources: individual–level data: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011).

notes: random slopes in multi–level estimation, displayed in Table 4.2.1b; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (one–sided test).

Table A.2.1c-2 displays the variance components of varying individual–level determinants in the final estimation of ideological European knowledge, according to Table 4.2.2b. Most interestingly, ideological domestic knowledge still has a significantly varying effect between the EU member states. As I showed in Chapter 4, both greater fragmentation and lower polarization cause such variation in the coefficient of ideological domestic knowledge. However, these two electoral differences cannot explain the total variation between the EU member states. This indicates that other countries' characteristics also cause differences in ideological European knowledge on the country level, perhaps in terms of further electoral differences in the vote options or in terms of domestic traditions and the stability of domestic party systems (Mainwaring and Zoco 2007; Rose and Munro 2009).

Table A.2.1c-2: Variance components of the final model of the voter's ideological European knowledge

	var. comp.	d.f.	χ^2
attention to news	0.0000**	26	40.59
education	0.0000**	26	43.66
ideological domestic knowledge	0.0081***	24	88.49
constant	0.0032***	24	56.14
level–1, r	0.0223		

sources: individual–level data and lower polarization: EES (2009); greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.

notes: random slopes in multi–level estimation, displayed in Table 4.2.2b; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (one–sided test).

A.2.2   Additional estimations on the voter's electoral participation

As with the discussion of additional analyses in regard to the voter's European knowledge, Section A.2.2 examines further estimations on the voter's likelihood of participating in the European election, relating to the discussion in Chapter 5. In the following, I briefly discuss the ANOVA–model of the voter's electoral participation, as well as two additional estimations on the likelihood of participating in the context of factual knowledge and electoral differences in the formal rules. Afterwards, I again focus on conditional effects of electoral differences in the vote options as well as on the random slopes of the individual determinants according to the estimation displayed in Table 5.3.2-1.

a)   The ANOVA–model of the voter's electoral participation

Table A.2.2a displays the ANOVA–model of the voter's likelihood of participating in the European election, depending on a restricted Maximum Likelihood estimation.[58] Obviously, there exists no variance component for the individual level. For a dichotomous dependent variable, the residual variance of the individual level "follows directly from the success probability" (Snijders and Bosker 2004: 295), approximated by $(\frac{\pi^2}{3})$. In relation to the variance component on the country level, displayed in Table A.2.2a, it results in an ICC of about 0.177 for the voter's likelihood of participating in the European election.

Table A.2.2a: ANOVA–model of the voter's electoral participation

dependent variable: participation in the European election		
	coefficient	odds ratio
constant	1.3269***	3.7692***
	(0.1637)	
n (micro)	12,231	
n (macro)	27	
log likelihood	− 17,096.12	
variance component (macro)	0.708***	
iterations	4	

source: EES (2009).
notes: multi–level estimation of population average model, with robust standard error in brackets below coefficient; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided t-test on coefficients, χ²-test on variance component).

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58 Taking the small sample size on the country level into account (N=27), restricted Maximum Likelihood estimation is more appropriate than full Maximum Likelihood estimation (Hox 2002; Snijders and Bosker 2004).

b)   The voter's likelihood of participating and a higher magnitude

In the context of the voter's likelihood of participating in the European election, the estimations of Chapter 5 did not prove that a higher magnitude has any effect. According to these findings, a higher magnitude neither directly affects the voter's electoral participation (cH-2), nor relates to

Table A.2.2b: Multi–level model of the voter's electoral participation
and electoral differences in the formal rules

dependent variable: participation in the European election

	coefficient	odds ratio
interest in European election	0.8483***	2.3357***
	(0.0365)	
partisanship	0.4886***	1.6300***
	(0.0745)	
trust in EU institutions	0.1384***	1.1484***
	(0.0198)	
education	0.0785***	1.0817***
	(0.0168)	
gender	0.0382	1.0389
	(0.0399)	
duration	0.0415***	1.0424***
	(0.0048)	
factual European knowledge	0.1151***	1.1220***
	(0.0321)	
higher magnitude (clH-8)	− 0.0042	0.9958
	(0.0201)	
Ideological European knowledge	0.0334	1.0339
	(0.1997)	
greater fragmentation	1.0469	2.8488
	(0.7369)	
lower polarization	− 0.6796	0.5068
	(0.4774)	
factual domestic knowledge	0.0875***	1.0914***
	(0.0289)	
higher magnitude (clH-10)	0.0226	1.0228
	(0.0242)	
Constant	− 1.2060***	0.2994***
	(0.2858)	
distinct formula	− 0.5489***	0.5776***
	(0.1858)	
higher magnitude (cH-2)	− 0.0908	0.9132
	(0.1115)	
greater fragmentation	− 0.2934	0.7457
	(0.4691)	
lower polarization	0.2487	1.2823
	(0.4639)	
n (micro)	12,231	
n (macro)	27	
log likelihood	− 16,473.83	
variance component (macro)	0.493	
iterations	20	

sources: individual–level data and lower polarization: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011); greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.

notes: multi–level estimation of population average model by HLM 7, displaying logistic coefficients in the first column and the odds ratio in the second column, with robust standard errors in brackets below coefficients; variance component depends on unit–specific model with fixed slopes; levels of significance: * p<0.10, ** p<0.05, *** p<0.01 (two–sided test).

the influences of factual knowledge components on participation (clH-8 and clH-10). The missing effect of a higher magnitude might be due to an overlap with a distinct formula. As shown in Chapter 5, such a distinct formula affects the likelihood of voting for the EP. Moreover, as briefly discussed in Chapter 2, a distinct formula and a higher magnitude are correlated. Countries that replace their national formula by a distinct one for the EP increase the district magnitude, transforming their national single–member districts into multi–member districts for the European election.

To ensure that the missing effect of a higher magnitude is not due to overlap with a distinct formula, I re-estimate the model shown in Table 5.3.2-1. Table A.2.2b displays an estimation of the voter's likelihood of casting a ballot for the EP, including a cross–level interaction term between the factual knowledge components and a higher magnitude, exclusively. However, the coefficients shown in Table A.2.2b do not yield any results additional to the estimates of Chapter 5. Excluding the interaction terms between a distinct formula and the voter's factual knowledge components, a higher magnitude is still not relevant for the voter's participation in the European election. To conclude, the higher number of actors contesting the voter's European electoral district has no direct effect on either her participation or the relevance of her factual knowledge to her participation.
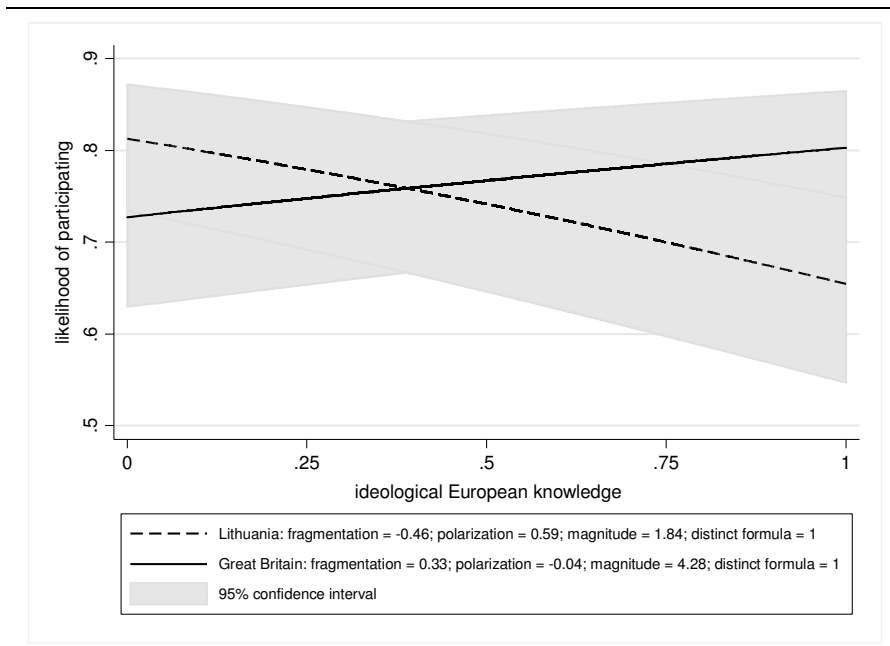
> c) *The conditional effect of ideological European knowledge on the likelihood*
> *of participating by electoral differences in the vote options*

In this section, I turn back to the cross-level interaction effects between ideological European knowledge and electoral differences in the vote options. According to the regression estimation shown in Table 5.3.2-1 neither greater fragmentation nor lower polarization significantly affects the influence of knowledge about the idea of European integration on the voter's likelihood of participating. As argued in Chapter 5, these missing effects are due to the negative correlation between both electoral differences in the vote options. To provide a first insight, I estimated separate regression models, ignoring the common influence of greater fragmentation and lower polarization on the likelihood of voting in the European election. However, to evidence the findings of Chapter 5, this section discusses the conditional effects of greater fragmentation and of lower polarization, taking their common influence according to the estimates of Table 5.3.2-1 into account.

Figure A.2.2c-1 displays the conditional effect of ideological European knowledge (abscissa) on the voter's likelihood of participating in the European election (ordinate) by greater fragmentation, similar to Figure 5.3.2-2. But opposing the visualization in Chapter 5, Figure

A.2.2c-1 sets up on the concrete specification of countries' electoral differences. The dashed line illustrates Lithuania, the country with least fragmentation (– 0.46) among all EU member states. Moreover, Lithuania has quite low polarization (0.59), a somewhat higher magnitude (1.84), and a distinct formula (1). The solid line illustrates Great Britain, with the most fragmentation (0.33), quite high polarization (– 0.04) as well as magnitude (4.28), and a distinct formula (1). Obviously, Figure A.2.2c-1 replicates Figure 5.3.2-2: Although greater ideological European knowledge is less relevant for electoral participation in Lithuania, it increases the voter's likelihood of casting a ballot for the EP in Great Britain, as would be expected by my eleventh cross-level hypothesis (clH-11). However, according to the overlapping confidence intervals (light grey regions), this effect of greater fragmentation on ideological European knowledge is insignificant, controlling for the common influence of both electoral differences in the vote options. In short, ideological European knowledge has a similar effect on the voter's likelihood of participating in Great Britain and Lithuania.

Figure A.2.2c-1: The conditional effect of ideological European knowledge on the likelihood of participating by greater fragmentation (clH-11)
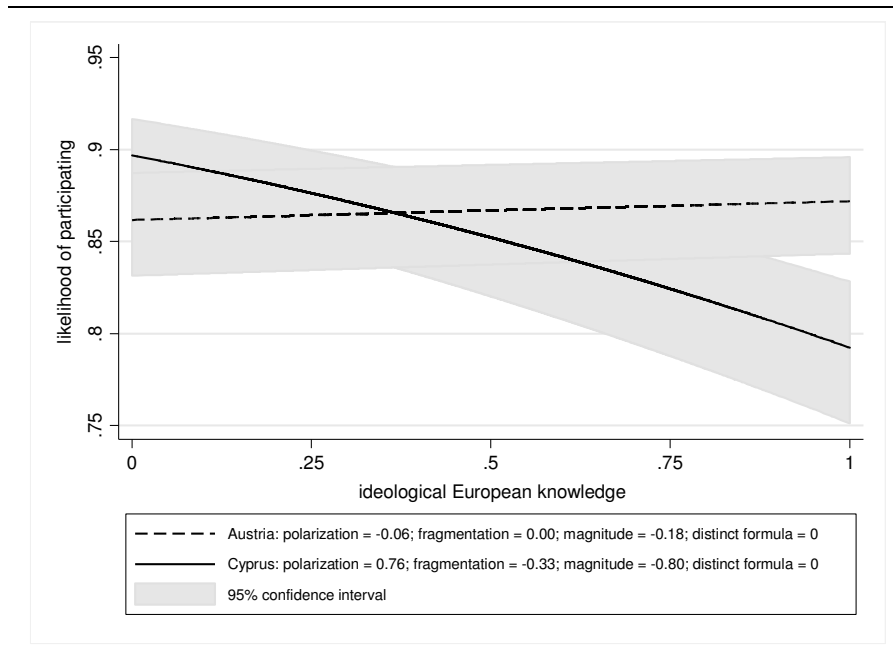

source: individual–level data and lower polarization: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011); greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.
model: predicted likelihood of participating according to the estimates displayed in Table 5.3.2-1 for a female mean voter.

Figure A.2.2c-2 visualizes the conditional effect of ideological European knowledge (abscissa) on the voter's likelihood of participating (ordinate) by lower polarization according to the estimates of Table 5.3.2-1. The dashed line covers Austria, the country with the highest polarization (– 0.06)

among all EU member states. Austria is further characterized by an equal fragmentation (0.00), a slightly lower magnitude (− 0.18), and a similar formula (0). The solid line illustrates Cyprus with lowest polarization (0.76), a lower fragmentation (− 0.33) as well as magnitude (− 0.80), and a similar formula (0). Just as with Figure 5.3.2-3, Figure A.2.2c-2 displays a reducing effect of greater ideological European knowledge on the voter's likelihood of participating in Cyprus, in contrast to a marginally positive influence in Austria. As expected, greater knowledge about the idea of European integration enables the Cypriot voter to better understand lower polarization and the lack of representation it causes. This discourages her from casting a ballot for the EP, as expected in my twelfth cross-level hypothesis (clH-12). This negative influence of lower polarization on ideological European knowledge is significantly different in Austria and Cyprus – at least for a voter with great ideological European knowledge – as indicated by the non-overlapping confidence intervals on the figure's right side. In other words, lower polarization causes greater ideological European knowledge to decrease participation, at least comparing Cyprus and Austria.

Figure A.2.2c-2: The conditional effect of ideological European knowledge on the
likelihood of participating by lower polarization (clH-12)

- - - -	Austria: polarization = -0.06; fragmentation = 0.00; magnitude = -0.18; distinct formula = 0
————	Cyprus: polarization = 0.76; fragmentation = -0.33; magnitude = -0.80; distinct formula = 0
	95% confidence interval

source: individual–level data and lower polarization: EES (2009); distinct formula: CPDS–III (2009) and EC Council
(2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011); greater fragmentation: IPU (2011),
European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.
model: predicted likelihood of participating according to the estimates displayed in Table 5.3.2-1 for a female
mean voter.

To recap, the present section investigated the cross-level interaction effects between electoral differences in the vote options and the voter's ideological European knowledge on the likelihood

of participating in the European election. Instead of the separate regression estimations discussed in Chapter 5, these figures take the common influence of both electoral differences in the vote options according to Table 5.3.2-1 into account. The visualization of greater fragmentation replicates the finding of Chapter 5: ideological European knowledge tends to be more relevant for the voter's likelihood of participating, due to a higher number of vote options in the European election. Moreover, when comparing the voter's likelihood of participating in Austria and Cyprus, lower polarization causes a Cypriot's ideological European knowledge to decrease her likelihood of voting. To conclude, although the estimates on cross-level interactions between ideological European knowledge and electoral differences in the vote options were insignificant in Table 5.3.2-1, these figures further support my underlying expectation: electoral differences render political knowledge more relevant to the voter's likelihood of participating in the European election.

d)   *The random slopes of individual determinants in the final estimation of section 5.3*

I remark, finally, on the random slopes of individual–level determinants in the final estimation of the voter's likelihood of participating in the European election, according to Table 5.3.2-1. As shown in Table A.2.2d, only two individual determinants have significantly varying coefficients on the likelihood of participation in different EU member states. First, the effect of the voter's political interest varies. Second, her partisanship has different influences in different countries.

Table A.2.2d: Variance components of the final model of the voter's electoral participation

	var. comp.	d.f.	χ^2
constant	0.6148***	22	257.15
interest in European election	0.0222**	26	45.55
partisanship	0.1019***	26	53.73

sources: individual–level data and lower polarization: EES (2009); distinct formula: CPDS–III (2009) and EC Council (2002); higher magnitude: DPI (2010) and Fehndrich et al. (2011); greater fragmentation: IPU (2011), European Parliament Archive (2011) and UK Electoral Commission (2011) for Great Britain.

notes: unit specific model's random slopes in multi–level estimation, according to Table 5.3.2–1; levels of significance: * $p<0.10$, ** $p<0.05$, *** $p<0.01$ (one–sided test).

Both random slopes reveal further research needs, for example in regard to the domestic party system and its stability. However, interestingly, none of the coefficients of the three knowledge components varies significantly between the EU member states. As I showed in Chapter 5, political knowledge is definitely relevant in the context of electoral differences. But, controlling for the influences of such differences, the voter's political knowledge has a similar effect on the likelihood of participating in all EU member states. This finding highlights the relevance of the concept of electoral differences to explain variations in individual participation in the European election in different EU member states.