

Ideology, Knowledge and Context

A multilevel study of “Political Sophistication” across 21 countries

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Abstract

Why do citizens' levels of political knowledge and ideological comprehension vary from country to country? Which contextual characteristics can explain the differences across countries? These are the main questions of this thesis, which investigates the relationship between political and socio-economic context and citizen's "political sophistication"-levels.

For many decades, scholars within the field of political sophistication mainly focused on explaining differences within single countries. The importance of characteristics such as education, gender and income is thus well-documented. However, less interest has been paid to the comparative perspective of political sophistication, and scholars disagree about why citizens' levels of political knowledge and ideological comprehension vary across countries. The consensus within literature has been that the electoral and political system influence citizens' sophistication levels; however, recent research suggests that the socio-economic equality of a country may be the true deciding factor.

This thesis puts these two competing contextual theories to the test by examining 21 modern democracies, applying multilevel modeling to data from the Comparative Study of Electoral Systems (CSES). The main finding is that a country's degree of income inequality explains why citizens differ in political sophistication across countries, and reduces the importance of e.g. citizens' educational level. A second finding is that while the current political knowledge-measures can capture individual level variations in political knowledge, it does not perform well for cross-national comparisons and should be applied with caution in comparative studies.

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All possible errors and mistakes of this thesis are entirely my own.

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Chapter 1

The Context of Political Sophistication

1.1 Introduction

Being able to understand the political sphere is a crucial component of modern citizenship (Delli Karpini and Keeter 1996: 3). On a daily basis, democracy directly or indirectly requires citizens to take a stand on a number of important and abstract political issues. Reflecting upon whether the present refugee crisis is handled correctly, discussing gasoline prices, or deciding whether to send a child to a private or public school, all involves taking a stand on political issues. When Election Day comes, citizens have to choose between a range of candidates and parties that offer different ideological and practical solutions to these issues. None of the considerations and assessments could be carried out without the citizen being able to take in, interpret and evaluate knowledge and information about the political sphere and the candidates maneuvering in it. Inevitably, living in a representative democracy requires some level of knowledge and comprehension of the political sphere.

The question as to whether citizens possess these virtues has been thoroughly studied by political scientists; the debates range from normative discussions in democratic theory about knowledge as a civic virtue, to the consequences of knowledge levels for e.g. voting. This thesis, however, seeks to unravel why people possess vastly different levels of “political sophistication”. The term was first coined by American political scientists, and refers to whether citizens retain political knowledge, understand the ideological positions of parties, and to what degree they hold consistent attitudes over time. From the 1960’s and almost up until today, the research has mainly been documenting the political sophistication levels of American citizens. As a result, we know a lot about the American state of affairs, and it is strongly confirmed that education, gender, income and other socio-demographic indicators are important predictors of sophistication levels (see e.g. Converse 1964; Delli Carpini and Keeter 1989; 1996; Zaller 1992; Bennett 1990; Strømsnes 1995).

In contrast, the distribution of political sophistication *across populations* is less studied. Institutional, economic and political context indeed do affect the citizens; a point that has been integrated into explanations of political behavior for a long time. Electoral turnout, economic voting and social trust are all fields of study where contextual variables are applied in order to explain why citizens act differently across countries (Dalton and Anderson 2010: 15). While political science has gained valuable insights into human behavior by adding contextual variables to the equation, the relatively few scholars of political sophistication offering comparative explanations propose two potential macro-explanations.

On the one hand, different electoral institutions and party-system characteristics could affect political sophistication. By obscuring or clarifying the political process and the parties' stands on political issues, citizens are affected by the political system in the country they live in. This strand of literature draws a line between so-called "majoritarian" and "PR"-countries, claiming that citizens living in the latter countries are more capable of understanding politics and the rules of the game (Granberg and Holmberg 1989; Gordon and Segura 1997; Clark 2013; Sheppard 2015). On the other hand, countries promoting economic equality are claimed to have citizens with a high degree of political sophistication. In contrast to countries without inequality-reduction policies, egalitarian countries tend to provide their population, and especially the less-educated, with better access to the resources known to promote political sophistication (Gronlund and Milner 2006).

Yet, we still know quite little about the mechanisms behind and link between people's political sophistication and the political and institutional context (Kuklinski and Peyton 2007: 9). The comparative research of political sophistication could be argued to suffer from three main challenges today. First of all, the operationalizations of political sophistication have frequently varied between "ideological comprehension", "attitudinal stability" or "knowledge levels", and some of these measures are not well suited when investigating political sophistication in a comparative perspective. Second of all, the contextual variables have for the most part been tested separately; few studies see the "party-system"-thesis in relation to the socioeconomic equality-thesis. Therefore we know little about how these contextual variables may or may not interact. Lastly, the interaction between the contextual variables and

individual level variables – i.e. whether the presence of equality serves to moderate the importance of education for political sophistication – has not been thoroughly looked into.

In this thesis, I seek to take these challenges into consideration and attempt to unravel why and how levels of political sophistication vary between Western, modern democracies today.

The overarching research question is:

To what degree and in what way is a citizen's level of "political sophistication" dependent on the political and socio-economic context of a country?

In the remains of this chapter I will review previous research on the field of political sophistication. Firstly, I will account for the notion of "political sophistication"; what the multifaceted concept entails and why it is important to study. Secondly, I will briefly point to the scholars using single-country studies and individual level predictors of political sophistication, and argue the importance of also focusing on the comparative aspect of political sophistication. Thirdly, then, I will discuss the newer strand of literature illuminating the reasons as to why levels of political sophistication vary from country to country. Lastly, I will introduce some specified research questions complementing the overarching question asked above, in addition to hypotheses resulting from the literature review. An outline of the thesis will also be presented.

1.2 What is a “politically sophisticated citizen”?

The notion of the politically “enlightened”, “aware” or “sophisticated” citizen has occupied democratic theorist since ancient times¹, and it would be an understatement to say the role of knowledge is an inevitable part of citizenship today (Delli Karpini and Keeter 1996: 1). Globalization of politics, the rise and decline of new and old party groups, decrease in conventional class voting and increased voter volatility, an upsurge of new and complex issues to the political agenda, and not least, enhanced access to internet and sources of information have increased the supply and demand for information about politics.

Hence, it is perhaps not surprising that the role of political understanding is extensively studied in political science. Over the course of time, the concept has passed under many names, such as “civic literacy” (Milner 2002), “political awareness” (Zaller 1992), “political constraint” (Achen 1974), “ideological understanding” (Feldman, 2013) and “political knowledge” (Delli Karpini and Keeter 1996). The first to systematically and empirically investigate the concept, however, was the American political scientist Philip E. Converse. Having witnessed the “break-down” of public rationale and what seemed to be millions of citizens’ adoption of totalitarian ideologies under World War two, Converse (1964) wanted to find out whether the reasons could be found in the logic and limitations of public opinion. Were citizens “unsophisticated” enough to solely and blindly embrace the elites’ opinions and ideological position, or were they able to base their opinions and vote on independent evaluations of facts and information?

Converse coined the citizens’ ability to acquire political information, interpret it and arrange opinions and knowledge in a constrained manner for “political sophistication”, a generic term that has served as a common denominator for the field of research ever since. Central to the study of political sophistication was – and is – political belief systems; mental, organized schemes defined as “a configuration of ideas and attitudes in which the elements are bound together by some form of constraint or functional interdependence” (Converse 1964: 207; Feldman 2013: 3). For the citizens to be characterized as “sophisticated”, three components in

¹ A normative assessment of what levels of knowledge a citizen should or could possess will not be a part of my discussion. For a theoretical discussion of knowledge levels and citizenship, consult Schumpeter, Dahl, Mill. For a comprehensive discussion, see Held (2006).

such a belief system are seen as fundamental; ideological comprehension, centrality of political knowledge and stability in opinions over time.

Firstly, *ideology* should be the underlying form of constraint binding the ideas and attitudes together – meaning the liberal-conservative or left-right political dimension. The political “yardstick” can be used to simplify and organize events in Western politics: Parties, political leaders, legislation and a number of other primary objects of politics could be located on the continuum (Converse 1964: 214-227). A single word like ‘conservative’ could “convey a tremendous amount of more specific information”. If applying the dimension actively, new political events have more meaning, and retention of political information from the past is more accurate. A sophisticated citizen would unthinkingly apply this as a frame for mentally organizing political observations, while the unsophisticated citizen maneuver in the political landscape without a comprehension of ideological positions, or base their “constraint” on other yardsticks, such as religious beliefs or group interests (ib.id).

Secondly, scholars have pointed to the centrality of *political knowledge* and information to a belief system (e.g. Bennett 1988; 1989; Cassel and Lo 1997; Lambert et al. 1988; Verba et al. 1997; Junn 1991; Howe 2002). Political knowledge is understood as “factual information about politics and government that individuals retain in their memory” (Keeter 2008: 2). Knowledge about the institutions and political government, current economic and social conditions, policy stands of political leaders, and so on, can make citizens able to discern their individual interests and their perception of the common good. It also makes people more susceptible for political argumentation, and provides them with a background to evaluate new arguments (Newman 1986: 18). In recent years, a common conclusion is that factual knowledge is the single best indicator of sophistication (Mondak 1999: 58).

Lastly, *stability in opinions* is important, i.e. that the respondent do not shift his or hers political attitude in a random fashion over time. The two other sophistication-components are prerequisites for holding stable attitudes; a citizen innocent of ideology is likely to give impulsive and thoughtless answers to survey questions, and without factual knowledge about a political issue the citizen will be more likely answer randomly. An “unsophisticated” citizen would probably never have thought about the issue asked about except when being

interviewed, and when asked again at a different point in time the respondent's answer would vary accordingly. Hence, lack of consistency over time was according to Converse an example of "meaningless opinions that vary randomly in direction" (1964: 243).

The consequences of possessing a certain level of political sophistication are well studied today. To start, knowledgeable citizens are significantly more likely to display political tolerance and support for democratic values, independent of education and other factors. Politically sophisticated citizens are also more likely to participate in politics through formal and informal channels (Delli Karpini and Keeter 1996: 218-225). Enhanced access to information, both in content and scope, will also lead citizens to hold political views different from those they would otherwise hold (see e.g. Gilens 2001; Althaus 2003). Zaller (1992) for example shows that sophisticated citizens are more likely to shift their opinions to policy-specific issues when confronted with new information, than those "unaware" of politics. This information-induced shift of opinion could also ultimately affect voting, and hence the composition of governments (Bartels 1996; Blais et al. 2009). In accordance, Arnold (2012: 810) claims that an infusion of electorally relevant information would likely have led to a lot of vote "switching", and in particular left parties would gain an increased share of votes from the working class with improved information about their economic interests.

However, previous research has not only applied political sophistication as an independent variable. Scholars have taken great interest in trying to explain why political sophistication levels differ between citizens, and for a long time, the American public and individual level predictors of political sophistication were at the center of field of study.

1.3 From "elite studies" to "the party system matters"

1.3.1 The American state of affairs

The story told about the American public has not been reassuring since the documentation started in the 1960's (Converse 1964; Bennett 1988; Zaller 1992; Bartels 1996). The long-standing consensus within the American behavioral research has been that most people know very little about politics and governance, and that the American public's political sophistication has "a high variance, but a very low mean" (Converse 1964; 1990; 2000). Most

people in the US were incapable of thinking ideologically about political issues, and responses to identical questions about attitudes answered at different points in time were so unstable as to call into question the very idea that people even had attitudes in any meaningful sense (Converse 1964: 215-219). Only “a miniscule proportion of any population” was able shape a belief system into such a perfect logical and consistent whole (Converse 1964: 211). In the studies, this small minority was “the elites”; people who devote themselves fully to some aspect of politics or public affairs, like journalists, politicians, activists, higher-level officials and many other kinds of experts (Zaller 1992: 6).

For a long time, the political sophistication-debate were concentrated on the elites, as Americans researchers contended that ‘ordinary citizens’ depend on their well developed belief systems to “trickle down” to them. One can think of this this trickle down-effect as a ladder, or a vertical information scale, where the mass public is organized largely due to differences in education. In the American society, the problem is that the transmission of information from the elites and downward through the system is imperfect: very little information trickles down very far. The consequence is that the least educated, at the bottom of this information ladder, will receive very little information (Zaller 2012: 603).

In other words, the “sophistication gap” has been ascribed to differences in people’s cognitive abilities and socio-demographic characteristics (see Delli and Karpini 1996; 2005; Strømsnes 1995; Zaller 1992; Althaus 2008). In particular, education is consistently documented as one of the strongest predictors of political sophistication (Converse 1964, Zaller 1992, Lewis-Beck et al 2008). Education serves to enhance cognitive capabilities for processing information and thus reducing the costs involved in political learning, and boost interest in political affairs (Keeter 2008; Delli Carpini 1996). Income has been pointed to as important for sophistication levels, as people with a high income has the material resources and opportunities to engage in political learning (Barabas et al 2014: 843). Moreover, a high income serves as an indicator of belonging to the ‘higher’ social stratum, which enhances political sophistication by having access to social networks where current issues and politics are well-discussed (Strømsnes 1995: 259).

Gender and age are also regarded as important predictors of political sophistication. The “gender-gap” is often ascribed to the way political knowledge-questions are designed in surveys. Men tend to display higher levels of sophistication due to their higher interest in factual knowledge, and their inclination to guess when asked knowledge questions. Women, on the other hand, tend to answer that they do not know, and suffer from the fact that the survey knowledge questions ask for factual knowledge rather than content related questions about politics (Opheim Ellis 2003; Delli Karpini and Keeter 2005). Middle-aged people are expected to be more sophisticated than the very young and the very old, as sophistication levels tend to “peak” when respondents are in their forties or fifties (Opheim Ellis 2003: 162). Moreover, party identification and union membership are contended to increase sophistication, because a citizen’s preferred party or union provides frequent information about his or hers political interests (Niemi and Westholm 1984; Iversen and Soskice 2013). In addition to socio-demographic variables, characteristics related to media consumption and political interest are documented as predictors of political sophistication (Price and Zaller 1993; Mondak 1995; Todal Jenssen 2009). For example, political sophistication tends to proliferate with increased newspaper reading and the consumption of “hard news” (Soroka et al. 2012: 719-720).

However, this research provides few clues as to how the macro-level conditions affect the public’s understanding of the political sphere. An upsurge of newer research indicates that the lack of sophistication found in the American public need not indicate an inherent weakness of citizens; this short-coming may, instead, be a product of the system within it emerges.

1.3.2 “The party system matters” ... in Sweden

The first inquiries into the systemic aspect of political sophistication were founded on comparisons between Sweden and the United States. Niemi and Westholm (1984) analyzed the attitudinal stability of both Swedes and Americans. They confirmed the previous American findings: the level of stability in the United States was extremely low. Attitudes displayed in the Swedish electorate were somewhat more steady than the attitudes displayed in the American one (Westholm and Niemi 1984: 126). Following this path, Donald Granberg and Sören Holmberg carried out similar, yet more extensive, analyses in “The Political

System Matters: Social Psychology and Voting Behavior in Sweden and the United States” (1988). Their point of departure was more explicitly focused on the institutions surrounding mass electorates, as “it is often the case that political scientists take the political system for granted” (Granberg and Holmberg 1988: 1). Their results pointed in the same direction as Niemi and Westholm: In Sweden, they observed more constrained attitudes that were also more stable across time (1988: 87). Education served as a more important intervening variable in the US than in Sweden. The average constraint in attitudes among the least educated people in Sweden was about at the same level as the highest educated in the U.S. (1988: 69-70). Formal education was thus more important for understanding American politics, whereas Swedes in general would hold a certain level of stable opinions, regardless of their educational level.

Granberg and Holmberg’s reasoning were that “the political system matters”: the political system has important effects on how individuals can grasp and make sense of politics. A system such as the Swedish has the advantage of being more focused on politics and ideology; the focus on party politics rather than candidates’ views makes it easier for the electorate to understand ideology and the rules of the game. Moreover, Niemi and Westhold claimed that the higher degree of partisanship in Sweden contributes to the observed attitudinal stability, as the parties repeatedly give the same clear cues about where to stand on issues. Partisanship serve as a better guide to what position to adopt on issues in Sweden than it does in the candidate-based system in America, as the parties provide stable and consistent sets of beliefs for their followers to adopt “unthinkingly” (Niemi and Westholm 1984: 76).

Extending the samples to Germany, the Netherlands and the U.S, Fuchs and Klingemann (1989) provided a different take on how context and party systems may affect political sophistication. Their findings suggested that in the European countries the ideological left-right-scale was more institutionalized than in the U.S.; Two thirds of the Europeans did understand and apply the left-right- scale, while only half of the Americans were able to make use of the conservative-liberal continuum. The meaning of the left-right scale is, according to the authors, defined by basic conflicts in the specific social system. It can refer to specific conflicts with social-structural bases - also known as “cleavages” in society: labor vs. capital, clerical vs. secular, and so on. These are often expressed in organizations and political parties,

and from this reservoir individuals select their specific understanding of the left-right or conservative-liberal schema (1989: 207). Hence, an understanding of the scale is not equivalent to being “sophisticated” in Converse’s terms; individuals can select some elements from the “culturally pre-determined set of meanings”, and apply them to the poles of the left-right dimension. Therefore, in some countries where the ideological scale has played an important role historically, like in Sweden, the scale will be recognized and applied by a larger amount of people – politically sophisticated or not (Fuchs and Klingemann 1989: 208).

Niemi/Westholm, Granberg/Holmberg and Fuchs/Klingemann’s comparisons to some degree showed that “the party system matters”. Nevertheless, a range of other institutional, political, cultural and historical features distinguish the United States from Sweden, and other contextual factors than merely the party system might bring about the differences in American and Swedish sophistication levels. I will now account for research that gauges into such explanations, and has extended their samples to more than two countries.

1.4 Two contextual explanations to political sophistication

During the last decades, contextual and institutional explanations have increasingly prevailed and improved in political science. The comparative research’s evolution has been facilitated by access to new and better data, and today, scholars can describe individual’s political behavior by pointing to characteristics of the society he or she lives in: electoral turnout is influenced by electoral rules (Blais et al 2006); the congruence between political representatives’ opinions and the electorates opinions varies with the proportionality of the elections (Bingham 2009); satisfaction with democracy depends on political institutions (Anderson et al 1997); and strategic voting differs in frequency under First-past-the-post and PR-electoral systems (Abramson et al 2010).

Surprisingly, the political sophistication-field stands out in the ‘comparative revolution’: Still, most studies concentrate on single country, single-level predictors (Kuklinski and Peyton 2007: 8). The reasons for this might be the challenges with the sophistication-concept itself, as one of the political sophistication aspects - ‘attitudinal stability’ over time - has been questioned as an

operationalization (Achen 1974; Luskin 1987; Hurwitz and Peffley 1987)² and moreover requires panel data, which cross-national survey datasets do not contain.

Hence, the handful of recent ‘large-N’-studies of political sophistication has emphasized the two remaining aspects of political sophistication: *ideological comprehension* and *political knowledge*, as information about the respondent’s placement of parties on ideological scales and answers to political knowledge-questions exists in (a small number of) comparative surveys. Central to the comparative research is the ‘party-system’-hypothesis, yet a competing hypothesis has also been raised: the notion that a country’s policies of redistribution might affect individuals’ abilities to grasp politics and ideology.

1.4.1 Majoritarian vs. PR-systems

Gordon and Segura (1996) further developed the “party system matters”-hypothesis, by testing a set of variables related to the party and electoral system. Moreover, political sophistication was measured as the citizens’ ability to comprehend the parties’ ideological placement.

Finding large differences in ideological comprehension in a sample of 12 countries, the most important driver was the presence of a *multiparty system*. Gordon and Segura theorize that parties in a multiparty system will try to differentiate themselves as much as possible from the parties around them in an effort to mobilize their base of support. This involves an increase in the access to and quality of information available to the public, increasing the citizens’ opportunity to be sophisticated. The effect may decline as the number of political parties climbs significantly higher. As the numbers of parties grow, the shades of distinction between them decrease, and as parties proliferate the information demands of the voters go up (Gordon and Segura 1996: 131).

Furthermore, if the votes and outcomes (in terms of seats) are not congruent, the usefulness of even accurate information is limited. Therefore, whether a nation practices *first-past-the-post* or *proportional translation* of votes to seats could have consequences for the individuals’ ideological understanding. In a system with a first-past-the post system, the citizens retain

² Both with regards to the statistical models correlating opinions at two points in time (Achen 1974; Luskin 1987), and as to whether stable opinions on an issue over many years really is a proxy for “sophistication” (Hurwitz and Puffley 1987).

uncertainty about the policy implications of any set of outcomes (Gordon and Segura 1997: 132). Conversely, in PR-countries voters are very likely to know the party's real position and the policy implications. In this environment information would be available, accurate and predictive of policy outcomes – and therefore worth collecting for the citizens (Gordon and Segura 1997: 140).

It was thus shown that an individual's ideological understanding were higher in countries with different institutional set-ups than the U.S. The findings suggested a sharp divide in political sophistication between citizens living in “majoritarian” and “PR”-countries. Citizens in majoritarian countries – like United States and the United Kingdom – characterized by two-party, first-past-the-post systems, with little congruence between votes and seats, exhibited considerably lower levels of political sophistication than citizens in PR-countries – with a multiparty system and proportional translation of votes to seats.

After Gordon and Segura's research, there have only been a handful of comparative, large N-studies that investigates political sophistication in a comparative perspective. Clark (2013) and Sheppard (2015) investigate the effect of “good governance”-variables and compulsory on political knowledge respectively. Apart from these examples, there have been few efforts to identify contextual variables other than merely political system variables. One exception is Grønlund and Milner (2006), which apply socio-economic context as an explanation to assess differences in knowledge levels across countries.

1.4.2 Inequality and the politics of “non-material” distribution

Grønlund and Milner (2006) reviewed the last component of political sophistication – political knowledge levels among the mass public. Making use of the Comparative Study of Electoral Systems dataset (CSES), the analysis of 22 countries showed that in countries with low inequality, citizens were better informed about political issues than those living in unequal societies. At the lower end of the information scale, countries with high levels of inequality were found: the U.S. and United Kingdom (Grønlund and Milner 2006: 398). Moreover, in countries with low inequality levels the uneducated displayed higher political knowledge than

the same group in less equal societies. Hence, they concluded that the relative importance of education on political knowledge depends on the system itself (Grønlund and Milner: 397).

The scholars' claimed that countries can be divided into "low civic societies" and "high civic societies". High civic societies, with a low level of inequality, can be distinguished from low civic societies by policies aimed at the redistribution of resources that are both material as well as "non-material". The latter takes the form of a number of measures enhancing access to knowledge, such as extensive universal public education. Some high civic societies also fund public broadcasters, which ensure that all citizens can consume reliable, non-commercial information about the political sphere and other societal issues.³ Hence, the public in general will be equipped with means to understand politics, and the political knowledge would be more equally distributed among the citizens. Citizens of "low civic literacy societies" would display low levels of knowledge for the opposite reasons (Grønlund 2006; Milner 2002).

Nonetheless, one problem with the analyses stands out. The scholars do not take into account that their data has a multilevel structure, and the contextual variables are not tested directly in a regression model.⁴ This hampers the study's ability to make the inference that inequality really influences political sophistication.

In general, inequality's influence on political behavior has gained little interest in political science, and the inequality hypothesis of political sophistication has yet to be investigated after Grønlund and Milner's work. However, Solt (2008) offers an argument when analyzing the effects of inequality on democratic political engagement, which can serve to complement the theory of Grønlund and Milner. His analyses demonstrate that economic inequality powerfully depresses political interest and discussion of politics among all but the most affluent, and that this negative effect increases with declining relative income. His reasoning for this outcome is that where income and wealth are more concentrated, power will also be more concentrated, and the less affluent will be more likely to find that the issues debated are

³ However, few studies have documented a feasible the link between Public Service Broadcasters and knowledge levels (Soroka et al. 2012: 724). Few datasets do moreover provide information about media policies at a contextual level. The issue of measuring "media" at country level is discussed in Soroka et al 2012.

⁴ See Grønlund and Milner (2006) pages 395-400.

not those that interest them. The result is that they give up discussing political matters and loose interest in the public and political debate (Solt 2008: 48).

1.5. The remaining questions

The field of political sophistication has seen an evolution from individual level, single-country studies to an unraveling of why the democratic virtue varies from country to country. Today, two theories have gained attention as explanation to this variation; the “majoritarian vs. PR-countries” and “Unequal vs. equal societies”-hypotheses. However, the number of studies testing these hypotheses is few, and I argue that there are at least three remaining questions today.

First of all, some methodological issues must be addressed, as debates over the measurement of political sophistication have occupied as much space as any single controversy in the discipline (Kuklinksi and Peyton 2007: 1). Attitudinal stability is challenging to analyze in a comparative perspective, both due to controversies over how to measure ‘stability’ and the abovementioned problems with data. Panel data is not included in cross-national surveys, and hence we lack comparative data measuring a person’s attitudes at two points in time.⁵ Instead, the two underlying ‘premises’ for stable opinions, knowledge and ideological comprehension, have been applied as dependent variables. However, the controversy of measurements extends to these aspects too, more precisely to political knowledge. Elff (2009) points to inherent weaknesses in the operationalization of political knowledge, and raises serious doubts about the equivalence of the knowledge questions asked in comparative studies. This political knowledge index is most frequently used in comparative political sophistication-studies, and is used by e.g. Grønlund and Milner 2006. Therefore, I will seek to compare findings from the knowledge index to other operationalizations of sophistication, in particular the one seen in Gordon and Segura (1996). Moreover, I will apply multilevel-modelling in order to test the relevance of the “inequality”-hypothesis of Grønlund and Milner.

⁵ The only panel data sets available online (for single countries), are provided by Norway, Sweden, United Kingdom, the United States and Germany. Carrying out analyses based on only five countries would not enable an investigation of contextual variables.

Second of all, the two theories have either been treated as competing theories or have not been seen in relation to each other at all. Both theories hold the assumption that the macro-structures *directly* affect individuals' political sophistication, while a possible interaction between the two sets of explanations is overlooked. Iversen and Soskice (2006) have developed a general model of redistribution that explains why some democratic governments redistribute more than others, and show that the PR-systems redistribute more than majoritarian countries. Their argument implies that center-left governments dominate under PR-systems, whereas center-right governments dominate under majoritarian systems, which explains why the two systems engage in different redistribution measures. Applying these facts to political sophistication research, the picture would look rather different; the two competing theories might actually be complimentary (Iversen and Soskice 2006: 123).

Third of all, some countries seem to have a more evenly distributed level of political sophistication among its citizens. But why is it so? The literature describes that a political or institutional variable, be it redistributive policies or the party system, seem to dampen the importance of e.g. how well- or uneducated a citizen is. However, these theorized interactions between individual traits and contextual structures have not been thoroughly looked into with comparative data.

1.6 Analytical framework

In this master thesis attempts to answer to what degree and in what way a citizen's level of "political sophistication" is dependent on the political and socio-economic context of a country. The 'political and socio-economic' context is represented by two stands in this thesis: the "PR vs. majoritarian" and "Inequality"-theories. I have also shown that political sophistication can be measured in two ways when using comparative data: political knowledge and ideological understanding of party politics.

To answer the research question, then, both theoretical and methodological considerations need to be taken into account. I ensure this by doing two things in my analytical framework. First, I present sub-research questions which accounts for the two operationalizations of political sophistication. The research questions will structure the analytical chapters in the

thesis. Due to the importance of analyzing the political knowledge and ideological comprehension separately, I present two analytical chapters. Second, I present four hypotheses regarding the socio-economic and political context that is expected to influence the dependent variables. These will be identical and tested for both dependent variables in both chapters, as I have theoretical assumptions implying that the contextual variables affect political knowledge and ideological comprehension equally.

1.6.1 Research questions and hypotheses

As seen in the literature review, the “political sophistication”-concept entails three components – knowledge, ideological comprehension and attitudinal constraint. The latter component is, as previously seen, not suitable to analyze when political sophistication is assessed in a comparative perspective. As the remaining aspects are also seen as the underlying premises for political sophistication, I operationalize political sophistication as *political knowledge* and *ideological comprehension*. This opens up for the two first research questions:

RQa To what degree and in what way is a citizen’s level of **ideological comprehension** dependent on the political and socio-economic contextual variables of a country?

RQb To what degree and in what way is a citizen’s level of **political knowledge** dependent on political and socio-economic contextual variables of a country?

If the results from these analyses should differ, it could indicate that the comparative sophistication-literature should carefully consider their operationalizations of political sophistication in the future. I therefore pose a third research question, which will be discussed after reviewing the findings of research questions a and b.

RQc To what extent can current political knowledge and ideological comprehension-indicators measure political sophistication in a comparative perspective?⁹

To answer the first two research questions, I have four hypotheses which specify the “political and socio-economic context” which the literature predicts will have an effect on sophistication levels across countries. H₁ relates to *political* context-variables, and the research that contends that electoral institutions contain some inherent ability to empower individuals. To recall, PR

and majoritarian-institutions directly influence individuals, by obscuring or clarifying the political process and enhancing or diminishing the public's incentives for seeking out information (Clark 2013: 2). Swedish citizens, and other citizens living in PR-countries, exhibit more sophisticated belief systems because party-based systems puts parties and policies – rather than candidates and personal affairs – in the spotlight. Moreover, the proportional transformation of votes into seats makes it easier for the citizens of PR-countries to observe the consequences of their ballot, increasing the motivation to collect political and ideological information (Gordon and Segura 1997: 131). Quite the opposite is true for majoritarian countries like the United States. In a system with a first-past-the post system, the citizens remain uncertain about the policy implications of any set of outcomes, and the political debate centers on candidates rather than party politics and ideology (Granberg and Holmberg 1989: 37). Therefore, the first hypothesis is:

H1 *Individuals living in PR-countries exhibit higher levels of [ideological comprehension/political knowledge] than citizens in majoritarian countries.*

H₂ draws on research contending that individuals in countries with a *high degree of equality* and egalitarian social policies will experience higher levels of ideological comprehension. To recall, the reasoning for this is that a country that redistributes income will also be likely to redistribute non-material resources, and the citizens' will be more equally equipped with a basic understanding of the political sphere (Grönlund and Milner 2006: 386). The hypothesis related to these assumptions reads as follows:

H2 *Individuals living in countries with a high level of socio-economic equality display higher [ideological comprehension/politically knowledgeable] than individuals in low-equality-countries.*

The two first hypotheses test two different contextual explanations as to why sophistication levels vary across countries. Furthermore, I attempt to assess whether any contextual attributes might condition and moderate some of the effects of individual-level variables. The characteristics of PR-systems are claimed to moderate the importance of education (Granberg and Holmberg 1989: 36, 69-70). In complex majoritarian systems with high costs of obtaining information, only the well-educated will be able and motivated enough to collect it. In PR-

systems, however, the “simplicity” and transparency empower all citizens with the possibility to understand the parties and their ideological roots. Equality is also contended to weaken the relationship between education and sophistication in a similar way (Gronlund and Milner 2006; Clark 2013). I will also test whether the interaction between context and individual level variables apply for gender-effect and income-effects. The interaction-effects are thus formulated in the following two hypotheses:

H3 *In PR-countries, individual socio-economic background is of less importance for [understanding ideology/political knowledge] than majoritarian countries.*

H4 *In socio-economic equal countries, individual socio-economic background is less importance for [understanding ideology/political knowledge] than in countries with high inequality.*

1.6.2 Outline of thesis

To attend to the research questions and hypotheses, I will proceed as follows. The first and following chapter will account for specificities of the data, method and operationalizations of variables. In the third chapter I will answer the first research-question, where sophistication is measured as ideological comprehension as seen in the article of Gordon and Segura (1996). The fourth chapter seek to find out whether the same systemic mechanisms are at play when analyzing political knowledge, following in the path of Grølund and Milner (1996). In this chapter I will also review the third research question, which compares the operationalizations of political sophistication. The hypotheses tested in both of these chapters will be identical, and in order to ease the interpretation of the results I will highlight the results from the countries that have received much attention in the political sophistication-literature: Sweden and the United States. Chapter five will provide a summary of the findings and a discussion of the results.

Chapter 2

Data and method

As seen in the literature review, methodological debates have taken up much space in the field of political sophistication. The choices of operationalizations, samples and statistical models have received much attention, as these choices have consequences for how the political sophistication of citizens is understood. In this chapter, I will account for some of the discussions and propose solutions, and issues of validity and reliability will be discussed continuously throughout the text. It will be structured as follows. Firstly, I will account for the data sample. Secondly, I will give grounds for multilevel modeling and specify the regression models. Lastly, the operationalization of my dependent and independent variables will be accounted for.

2.1 Data and units of analysis

2.1.1 Data sources

This thesis will assess the comparative aspect of political sophistication. Following the works of Grønlund and Milner (2006), Gordon and Segura (1996) and Sheppard (2015), such a research strategy requires hierarchical or multilevel data, which takes into account that people are nested in larger and cross-nationally variable contexts (Anderson and Singer 2008: 566). A dataset well suited in this regard is the Comparative Study of Electoral Systems (CSES), as it is designed specifically for cross-national as well as cross-level analyses.⁶

CSES is a collaborative research program among election study teams around the world. An international committee develops the research agenda, questionnaires, and study design for

⁶ The Comparative Study of Electoral Systems (www.cses.org). CSES module 2 full release. June 27, 2007 version.

The Comparative Study of Electoral Systems (www.cses.org). CSES module 3 full release. March 27, 2013 version.

The Comparative Study of Electoral Systems (www.cses.org). CSES module 4, second advance release. March 20, 2015 version.

election researchers in each country. Participating countries include a common module of public opinion survey questions in their post-election studies, and the resulting data are deposited along to CSES with voting, demographic, district and macro variables. The studies are then merged into a single and public dataset. The CSES contains information necessary to answer the research question in this thesis. The survey-questions comprise “micro” level-data on party-ideology evaluation and political knowledge, in addition to socio-demographic measures.⁷ Relevant system or “macro”-level data for each country – such as electoral rules and formulas, number of parties in the party system and other regime characteristics – are also included. Moreover, the dataset includes countries relevant for my study; as one of few cross-national surveys, it includes the United States as well as European countries, which is essential to investigate the research questions at hand.⁸

Macro-data missing in the CSES dataset has to be derived from other sources. The countries’ Gini-coefficients are downloaded from the websites of the OECD Income Distribution Database (IDD).⁹ Missing information about electoral rules and the party systems are retrieved from the Comparative Political Dataset (CPDS) of the University of Bern.¹⁰ From the website of UNDP I have obtained information about the The Human Development Index (HDI), which serves as a control variable in the following analyses.¹¹

2.1.2 Sample: Countries

My sample includes 21 OECD countries regarded as ‘Western, established democracies’ with a democratic, party system-based history for at least forty years (Iversen and Soskice 2006).¹² The CSES-datasets comprises four modules and up to 41 countries¹³, but an inclusion of

⁷ The CSES does not, unfortunately, include information about the respondent’s political discussion and media consumption.

⁸ World Value Study could have been an alternative with regards to this criterion, but the survey does not comprise political knowledge questions which is necessary to answer the research question.

⁹ <http://www.oecd.org/social/income-distribution-database.htm>

¹⁰ Armingeon, Klaus, Christian Isler, Laura Knöpfel, David Weisstanner and Sarah Engler. 2015. *Comparative Political Data Set 1960-2013*. Bern: Institute of Political Science, University of Berne. Downloaded from <http://www.cps-data.org/>

¹¹ <http://hdr.undp.org/en/content/human-development-index-hdi>

¹² Japan and Israel could also have been included following this condition. However, both of these countries had a lot of missing values on the level 2-variables, as well as on the dependent variables, and were excluded.

¹³ Modules 1, 2, 3 include 33, 38 and 41 countries respectively, in Latin America, North America, Asia, Oceania and Europe. The fourth module (which is not finished to this date) includes 17 countries.

countries with diverging democratic histories, political culture and social cleavages, as well as different socio-economic conditions, could hamper the comparability and the validity of the analyses of this thesis (Jowell 1998: 170; Lijphart 1975: 163). As political sophistication entails citizens' ability to understand the left-right scale, I have chosen to study countries where the left-right continuum structures the party systems and individual political behavior. Several scholars have argued for the appropriateness of the left-right continuum in the study of Western European political behavior (Barnes 1971; Huber 1987; Inglehart and Klingemann 1987; Klingemann 1972), and for the appropriateness of the liberal-conservative continuum, in American politics (Conover and Feldman 1981; Arian and Shamir 1983; Holm and Robinson 1978; Stokes 1963).¹⁴ Previous literature (Gordon and Segura 1996; Clark 2013; Iversen and Soskice 2013) has also restricted the analyses to Western, established democracies.¹⁵ Therefore, the countries listed in table 2.1 will make up the sample in this thesis.

Table 2.1 Countries in sample

European OECD-countries	Non-European OECD-countries
Austria	Australia
Belgium	Canada
Denmark	New Zealand
Finland	United States
France	
Germany	
Greece	
Iceland	
Ireland	
Italy	
Netherlands	
Norway	
Portugal	
Spain	
Sweden	
Switzerland	
United Kingdom	

¹⁴ It is a matter of more disputes whether the left-right scale applies to the party systems in e.g. Asia and the Middle East (Jou 2010). Underlining this assumption, is the fact that these countries have a lot of missing on the ideological placement variable, as well as a big share of "Haven't heard of the left-right scheme" and "Don't know".

¹⁵ With the exception of Sheppard (2015), where all countries in the CSES material is included. Grønlund and Milner (2006) make use of 22 countries from CSES round 1, where countries such as Taiwan, Hong Kong, Ukraine and Romania are included in addition to European countries and the United States.

2.1.3 Sample: Country-years

Having restricted the sample with regards to countries, it is necessary to make further restrictions to how many election studies, or years, to include. As the CSES includes four modules, it is possible to make use of up to five elections-studies per country.¹⁶ In existing literature, two strategies with regards to data prevail: Sheppard (2015) makes use of all four CSES modules pooled in a single dataset when testing the importance of compulsory voting for political sophistication, while Grønlund and Milner applies only the first CSES module.¹⁷ As a means of ensuring inter-reliability, I carry out my analyses based on both versions of the sample. The recoding of variables and analyses proceeding shortly are hence carried out twice; on a 21-years sample¹⁸ and on the full pool of CSES data, with the exception of round 1.¹⁹ The strength of both samples is that they constitute more countries than seen in previous research, thus maximizing the variations in dependent and independent variables (Gordon and Segura 1996; Granberg and Holmberg 1989), and opens up for exploring at least two independent variables at level two (see paragraph 2.2.2).

On the whole, the two samples render the same results. For sakes of simplicity, then, in the following text I report the results from the analyses applying one year per country, meaning that the results listed in tables in figures build on this smaller sample. Similarities and differences between the two samples will be commented on either in the text or in footnotes.

¹⁶ Module 1 (1996-2001): 39 election surveys, 33 countries (some countries are represented with more than one election)

Module 2 (2001-2006): 40 election surveys, 38 countries.

Module 3 (2006-2011): 50 election surveys, 41 countries.

Module 4 (2011 – 2016) (not completed): 18 election surveys, 17 countries.

¹⁷ Pooling of the CSES-modules are also seen in e.g. Dahlberg and Holmberg (2014);

¹⁸ The samples of Australia, Belgium, Denmark, New Zealand, Spain, United Kingdom, Ireland and Italy are from round two, and the remaining from round three. Italy, United Kingdom and Belgium are retrieved from round 2 due to that this was the only round they participated in. The samples of Australia, Denmark, New Zealand, Ireland and Spain were retrieved from round two rather than from round 3 because large parts of their samples would have been excluded from the analysis if round three was used (due to missing values on union membership, political knowledge, ideological comprehension, income, education). To account for possible round or time effects, the models have been tested with including a round dummy and year dummies. This did not change the results.

¹⁹ The CSES modules are merged into one single dataset, containing a total number of 93 731 respondents, and 52 election studies and 21 countries. Round 1 is omitted, due to that all “don’t know”-answers to the questions making up my dependent variables are coded as system-missing. As the “don’t know”-answer has a substantial meaning in my analyses, the round is excluded from the analysis in order to make the results from all rounds comparable.

Table 2.2 Sample reported on in text.

Country and year of election	N
Australia 2004	1769
Belgium 2003	2225
Denmark 2001	2026
New Zealand 2002	1741
Spain 2004	1212
United Kingdom 2005	860
Ireland 2002	2367
Italy 2006	1439
Austria 2008	1165
Canada 2008	4495
France 2007	2000
Finland 2007	1283
Germany 2005	2018
Greece 2009	1022
Iceland 2007	1595
Netherlands 2006	2359
Norway 2009	1782
Portugal 2009	1316
Sweden 2006	1547
Switzerland 2007	3164
United States 2008	2102
Total	39487

Table 2.3 Full pool of CSES data. Results reported in appendix.

Country, year	N		N		N
Australia 2004	1769	Germany 2005*	2018	New Zealand 2008	1149
Australia 2007	1873	Germany 2009*	2095	New Zealand 2011	1374
Australia 2013	3953	Germany 2013	1889	Norway 2001	2052
Austria 2008	1165	Greece 2009	1022	Norway 2005	2012
Austria 2013	1000	Greece 2012	1029	Norway 2009	1782
Belgium 2003*	2225	Iceland 2003	1446	Portugal 2005	2801
Canada 2004	1674	Iceland 2007	1595	Portugal 2009	1316
Canada 2008	4495	Iceland 2009	1385	Spain 2004	1212
Denmark 2001	2026	Iceland 2013	1479	Spain 2008	1204
Denmark 2007	1442	Ireland 2002	2367	Sweden 2002	1060
Finland 2003	1196	Ireland 2007	1435	Sweden 2006	1547
Finland 2007	1283	Ireland 2011	1853	Switzerland 2003	1418
Finland 2011	1298	Italy 2006	1439	Switzerland 2007	3164
France 2002	1000	Netherlands 2002	1574	Switzerland 2011	4391
France 2012	2014	Netherlands 2006	2359	United Kingdom 2005	860
France 2007	2000	Netherlands 2010	2153	United States 2004	1066
Germany 2002	2000	New Zealand 200	1741	United States 2008	2102
				United States 2012	1929
Total					93 731

* Belgium Flanders and Belgium Walloon are converged. Germans reached by telephone are included in the sample, and not the postal respondents

2.1.4 Weighting

Although each national sample in the CSES is drawn as a probability sample in order to attend to representativeness, post-stratification could be conducted in order to correct for known differences between the sample and population (Gelman 2007: 155).²⁰ However, a weight variable making the sample representative with regards to socio-demographics is unfortunately not available for all countries in the CSES-datasets. As the survey builds on national election studies, the weight variables differ both in prevalence and content.²¹ It is also a theoretical possibility to weigh the country samples so that all countries are represented with a fixed number of respondents. However, Asparouhov (2004) and Dahlberg et al (2014) do not recommend such a strategy.²² Due to these reasons, the data in this thesis are not weighted.

2.2 Method

2.2.1 Why multilevel analysis?

The research question is the most important reason for choosing a multilevel analysis. The basic intuition behind the multilevel-analysis is that people are nested in identifiable contexts, and that they form attitudes and make choices in these macro-political environments (Anderson and Singer 2008: 566). These environments can come in the form of formal institutional rules or in the form of differential economic, social and political conditions that shape people's interpretations and actions. In other words, a multilevel model takes into consideration that macro variables might influence individuals' behavior (Jones 2008: 1). With a multilevel model I can estimate regression models where outcomes at level 1 (political sophistication) can be explained by characteristics at level 2 (party systems and inequality).

²⁰ Full descriptions of how respondents are drawn in order to secure the representativeness of samples, which varies from country to country, can be found at www.cses.org

²¹ Some countries provide weights only correcting for vote choice, while other weights correct for differences in socio-demographic background. A few countries do not provide weights at all.

²² According to Asparouhov, the only weights that should be included in a multilevel model are weights for unequal selection probabilities within countries: "(...) As the selection mechanism [level 2-weight] is not informative, we should exclude such weights from the analysis. The estimates will remain consistent and in fact will be more precise. Including non-informative weights in the analysis can result in a substantial loss of efficiency." (2004: 19-20).

A multilevel model can also account for whether different kinds of people are affected differently by the macro contexts. By including interaction terms between variables at two levels, or cross-level-interaction terms, it is possible to assess whether an effect of a level 2-variable conditions or moderates the effect of a level 1-variable on the outcome (Jones 2008: 5). This opens up for analyses of hypotheses three and four, which expect that the effect of education, gender and income will vary depending on the system that the citizen resides in.

Moreover, there are several statistical reasons for applying multilevel analysis in this thesis, the most important being that the analysis recognizes that the data have a hierarchical structure. It is reasonable to expect that two individuals in the same country are more similar than two individuals from two different countries, and that the observations thus are dependent on each other (Christophersen 2013: 108). This has consequences for the estimation of the standard errors, as the dependency means that the actual number of units is smaller than the effective sample size in the dataset. When applying a multilevel-model, I avoid underestimating the standard errors and prevent committing invalid inferences (Rabe-Hesketh and Skrondal 2012: 75).

In order to assess whether correlation within groups is a problem in my sample, I calculate the intra-class correlation (ICC). The ICC expresses the proportion of the total variance that can be ascribed to the countries at level 2, and it can be interpreted in two ways; as the correlation between the political sophistication of two citizens within the same country, or as the proportion of the unexplained variance in the citizens' political sophistication that can be explained by characteristics of the country they live in. As a rule of thumb an ICC over 5% suggests that multilevel modeling is required (Jones 2008: 6). In table 2.4 I present the variance at level 1 and level 2, in addition to the ICC from the base line or empty model – a multilevel analysis without independent variables. In my sample, the ICC is 10,5%²³ and 7,3%²⁴, and it is thus reasonable and necessary to carry out an analysis where the individuals are nested within countries.

²³ $0,66/(0,66+5,65) = 0,1045$

²⁴ $0,07/(0,88+0,07) = 0,0736$

Table 2.4. ICC for ideological comprehension and political knowledge

Multilevel model	Ideological comprehension	Political knowledge
Level 1 variance	5,65	0,88
Level 2 variance	0,66	0,07
ICC	10,50%	7,36%

2.2.2 Assumptions for multi-level modeling

As with any regression method, the utility of the estimation results depends on the degree to which model assumptions are met (Rabe-Hesketh and Skrondal 2012: 53). A linear multilevel model builds on the same principles as a conventional ordinary least square (OLS) regression, and several of these assumptions are met in this thesis: the relationship between political sophistication and the independent variables at both levels is linear²⁵, and the two dependent variables are treated as continuous, metrical variables. Moreover, assumptions of homoscedastic, normally distributed and non-auto-correlated residuals apply (Hox 2010: 23). As opposed to the ordinary OLS-regression, however, this assumption applies to both level 1 and level 2-residuals; hence to both the individuals and the countries. These residuals should be investigated carefully (Hox 2010: 23). When inspecting the level 1 and the level 2-residuals, the normality assumptions seem to be met.²⁶

Sample size is important to consider when estimating the models. In survey research with a hierarchical structure to the data, this consideration can be particularly problematic due to the natural confines to the number of level 2-units in the theoretical universe. There are e.g. limitations to how many countries could be considered as ‘Western, developed democracies’. According to Strabac (2007: 176) there is no absolute rule as to how many level 2-observations are ‘adequate’ in a multilevel analysis, and the best advice will also depend on the purpose. He claims that multilevel modeling can be utilized with a number of 10-100 observations at level 2. However, the statistical limitations increase as the number of level 2-units decreases, and one should be particularly cautious when adding variables at level 2 to the analysis.

²⁵ Where I theoretically expect this not to be the case, a squared version of the independent variable is introduced to the model in order to account for possible curvilinear effects. This is particularly relevant with regards to the effective number of parties and age, which is described in paragraph 2.4.

²⁶ The plots can be reviewed in the appendix.

Strabac (2007: 186) holds that a number of 10 level 2-units warrants the inclusion of one level 2 variable, while Stegmueller (2013: 16) deem 10 to 15 level 2-units necessary. Following this advice, the number of level 2-variables will be restricted so that no more than two systemic variables appear in the analysis at the same time.²⁷

2.2.3 Model specifications and interpretation

In chapter one I argued for the necessity to separately analyze the different aspects of political sophistication. Newer literature taking on a comparative approach has handled “political knowledge” and “ideological understanding” interchangeably as political sophistication, not always taking into account that these two measures might be methodologically as well as theoretically different from each other. For this reason, my analyses will measure the two concepts separately, and “political knowledge” and “ideological comprehension” will be analyzed in separate chapters. As I have the same theoretical expectations to the mechanisms influencing both variables, the structure of the analyses, as well as the independent variables, specification and estimation of the regression models, will be the same in both chapters.

Model specifications

A multilevel model is formalized through a set of regression equations at level 1 and level 2 (Gill and Womack 2013: 6). The development of multilevel models starts with a simple linear model specification, where the hierarchical structure is taken into account by pinning each individual to its respective country.²⁸ Each individual i belongs to a country j , giving:

$$Y_{ij} = \beta_{0j} + \beta_1(X_{ij}) + \varepsilon_{ij} \quad (1)$$

The subscript j hence indicates that the intercept β_{0j} and the residual ε_{ij} are allowed to vary across countries. Since the β_1 coefficient is not indexed by the grouping term j , the regression coefficient is constant across countries and evaluates as a standard point estimate. The model hence illustrates that while different countries start at different intercepts, they progress at

²⁷ In some of the models, up to three variables are displayed in the same column in the regression table, however, these are run separately and are commented on in the text.

²⁸ The estimation of the parameters is produced with maximum likelihood (MLE), which is the most commonly used estimation method used in multilevel analysis (Hox and Maas 2005: 785).

same rate (slope). This model choice is made due to the research question, as I have no theoretical expectations indicating that the effect of an explanatory variable (e.g. education) on political sophistication should differ from country to country.²⁹ The random intercept β_{0j} and the fixed coefficient β_1 can be specified in level 2-models that writes as:

$$\beta_{0j} = \gamma_{00} + u_{0j} \quad (2)$$

$$\beta_1 = \gamma_{10} \quad (3)$$

Here, the intercept and the regression coefficient are expressed as a function of the constant (γ_{00}) and the regression coefficient's (γ_{10}) mean across all the countries in the sample. The residual u_{0j} expresses the country j 's deviation from the intercept.³⁰ If a level 2-variable is hypothesized an effect on the dependent variable, the regression coefficient can be specified as:

$$\beta_1 (Z_j) = \gamma_{01} (Z_j) \quad (4)$$

When equations 1, 2, 3 and 4 is combined, a complete multilevel model with explanatory variables at both levels can be written as:

$$Y_{ij} = \gamma_{00} + \gamma_{10} (X_{ij}) + \gamma_{01} (Z_j) + u_{0j} + \varepsilon_{ij} \quad (5)$$

With equation 5 as a starting point, I can specify the models that will be estimated in this thesis. In order to carry out a preliminary test of the first and second hypotheses – which state that PR-variables and inequality will affect citizens' sophistication levels – the first model will test the effect of a set of level 2-variables.³¹ Model 2a includes two contextual variables, while in 2b there is controlled for variables at the individual level. The full model, 2c, will include a cross-level interaction term (γ_{11}) in order to test the third and fourth hypothesis; that is, whether the effect of individual level variables such as education, gender and income are conditioned by contextual variables.³² The models read as:

$$Y_{ij} = \gamma_{00} + \gamma_{01} (Z_j) + u_{0j} + \varepsilon_{ij} \quad (\text{Models 1a-f})$$

²⁹ In other words, I apply a random intercept, fixed effects model in the following analyses.

³⁰ If I were to run a random coefficient model, as opposed to a fixed effects model, the regression coefficient β_{1j} would be expressed as γ_{10} and the residual u_{1j} , as the random effect across countries would also entail a country-specific error term.

³¹ This model is applied in tables 3.3 and 4.4.

³² Tables 3.4 and 4.5.

$$Y_{ij} = \gamma_{00} + \gamma_{01} (Z_j) + \gamma_{02} (W_j) + u_{0j} + \varepsilon_{ij} \quad (\text{Model 2a})$$

$$Y_{ij} = \gamma_{00} + \gamma_{01} (Z_j) + \gamma_{10} (X_{ij}) + u_{0j} + \varepsilon_{ij} \quad (\text{Model 2b})$$

$$Y_{ij} = \gamma_{00} + \gamma_{10} (X_{ij}) + \gamma_{01} (Z_j) + \gamma_{11}(X_{ij} Z_j) + u_{0j} + \varepsilon_{ij} \quad (\text{Model 2c})$$

The full pool is data is modeled in the same ways as models 1a-f and 2b-c above. However, the modeling takes into account the data's three-level structure, as this sample have three “clusters”: individuals (level 1) that are nested in years (2), which corresponds to a certain country (3).³³

Interpretation of the regression analyses

The intercept (γ_{00}) in the models reads as the mean across all country years, or average ideological comprehension when the independent variables take on a value of zero. The continuous independent variables are centered, while other variables are coded as dummies, thus a value of zero indicates a the mean or a low value, e.g. low income, no union membership and so on (for interpretation of centered variables, see paragraph 2.4.3). The parameters γ_{10} and γ_{01} are linear, and when the independent variables (Z_j, X_{ij}) increase by one unit, ideological comprehension (Y_{ij}) will increase by γ_{10} or γ_{01} units, controlled for the remaining independent variables in the model. The cross-level interaction ($\gamma_{11}X_{ij} Z_j$) conveys the effect of a level 2-variable as a multiplicative interaction with a level 2-variable. To ease the interpretation of this term, I display the marginal effects in figures.

Moreover, the models include information about the variance of the error terms, indicating the difference between the observed and the predicted values. Contrary to a one level OLS model, the variance is split in two parts – one for the difference between predicted and observed values within each country (ε_{ij}), and one for the difference between observed and predicted values between countries (u_{0j}). Based on these variance components, I have

³³ The three-level model builds on the same principles as equation 5 above; however, it includes a specification of a level-three intercept and error term (Ai 2002: 7): $\beta_{00j} = \gamma_{000} + r_{00j}$. As I have no level 3-independent variables, the new full model specification only differs from model 2c with regards to the intercept (it now denotes the intercept of level 3) and the error terms (the level 3-error term is added).

The full model specification is: $Y_{ij} = \gamma_{000} + \gamma_{10} (X_{ij}) + \gamma_{01} (Z_j) + \gamma_{11}(X_{ij} Z_j) + r_{00j} + u_{0j} + \varepsilon_{ij}$

calculated the amount of explained variance, displayed as “Pseudo R²” in the regression tables.³⁴

2.3 Operationalization: Dependent variables

2.3.1 Ideological comprehension

In chapter 3, “ideological comprehension” will serve as the dependent variable. Gordon and Segura (1996; 133) propose two different operationalizations of the concept, both building on a left-right scale that is considered as a way of structuring politics.³⁵ I build on their measures and construct three different versions of the ideological comprehension: one will serve as the main dependent variable, and the two others will be tested in order to ensure validity³⁶.

I operationalize ideological comprehension by calculating the distance between respondents’ and ‘expert’s placement of the same parties. In the CSES-data, all respondents and the national election researchers (the ‘experts’) have been asked to place the five biggest parties on a 10-point left-right scale. The questions are reported in table 2.5.

Table 2.5 CSES-questions regarding the parties ideological position on a left-right scale

Question number**			Question
Mod. 2	Mod. 3	Mod. 4	
Q20a	Q12a	Q11a	In politics, people sometimes talk of left and right. Where would you place [party A] [*] on a scale from 0 to 10 where 0 means the left and 10 means the right?
Q20b	Q12b	Q11b	Using the same scale, where would you place [party B] [*] ?
Q20c	Q12c	Q11c	Using the same scale, where would you place [party C] [*] ?
Q20d	Q12d	Q11d	Using the same scale, where would you place [party D] [*] ?
Q20e	Q12e	Q11e	Using the same scale, where would you place [party E] [*] ?

^{*} Party A indicates the biggest party in the last election, party B the next biggest, and so on. Parties differ from country to country. ^{**} Survey questions. ³⁷ The experts have answered the following questions: QI 4a-e (module 2), Q6a-e (module 3), Q6a-e (module 4).

³⁴ With the formula residual (model 0) – residual (model 1, 2, 3 etc.)/residual (model 0) for level 1, and intercept residual (model 0) residual (model 1, 2, 3 etc.)/residual(model 0) for level 2

³⁵ Gordon and Segura’s sample consists of 12 European countries. These countries are: France, Belgium, Netherlands, Germany, Italy, Luxembourg, Denmark, Ireland, Great Britain, Greece, Spain and Portugal.

³⁶ The validity tests do not differ from the main results, and will therefore not be commented on explicitly for all results.

³⁷ The experts have received the similar set of questions.

The variable is constructed by calculating the distance between a respondent and expert judgment of a party's ideological position, thus quantifying to what degree a respondent has 'misjudged' a party's ideological position.³⁸ As the table shows, it is possible to calculate the distance for up to five parties. A coding of five parties would deem the citizens in multiparty systems with a more difficult task than the counterparts living in two-party systems, and many of the countries in the sample have only provided information about two or three parties.³⁹ To ensure comparability, I choose to construct my main dependent variable on the basis of the two biggest parties, A and B. The more conservative, alternative coding utilizing information about all five parties will be used to as an alternative dependent variable.

The main dependent variable is coded in the following way. For each country, I have subtracted the respondent's placement of party A from the expert placement of party A. This 'distance-score' range from 0 scale units (the respondent placed the party at the exact same position as the expert did) and 10 scale units (meaning that the respondent placed the party at, say, the extreme left, while the expert placed it on the extreme right). The distance score is then inverted to a positive number⁴⁰, and the same recoding is applied to the positions of party B. The two scores are then added together and divided by two, so that the respondent is provided with a mean score of ideological comprehension. After this procedure is carried out for all countries in the sample, all twenty-one "average ideological comprehension"-variables are converged into one variable, ranging from zero to ten. In order to ease the interpretation of the results in the following regression analysis, the variable is inverted, so that a value of zero means low ideological comprehension⁴¹ and a score of ten means perfect ideological comprehension.⁴²

³⁸ The expert placements are therefore considered to be the parties 'true' ideological position. For a discussion of expert placement accuracy regarding the left-right scale, see Gordon and Segura (1996: 134).

³⁹ In two-party systems such as the US and the UK, both experts and respondents are asked to place only two parties, the remaining parties C-E is coded with missing values. Moreover, Portugal and Spain have only provided the questions regarding three parties.

⁴⁰ If a respondent has positioned party A at 4 while the expert placed it at 3, the 'error' in the respondent's ideological comprehension will be 1 scale unit. If the respondent's placement of party B is 5 and the expert placement of party B is 8, the number will be -3. The negative numbers are inverted into positive numbers so that when making an average out of these two placements, the average score is $(3+1/2 =) 2$ and not $(-3+1/2 =) -1$.

⁴¹ The respondent positioned both parties 10 scale-units different from the expert.

⁴² The respondent placed the parties at the exact same position as the expert.

In order to ensure the validity of the operationalization, I construct an alternative dependent variable, where the procedure is repeated with making use of five parties.⁴³ It is also possible to operationalize ideological comprehension on the basis of the respondents' placement alone. The procedure is equivalent to the one described above, the only difference being that the respondent placement is now subtracted from the mean placement of the party and not an expert placement.⁴⁴ The three different versions of the dependent variable can be seen in table 2.6.

Table 2.6 Dependent variable: Ideological comprehension.

Variable	Coding description	Parties [*]	Min. ^{**}	Max. ^{***}	Mean	Std.dev.	N
Main dependent variable	Distance between respondents' placement and expert placement of parties	2	0	10	7,58	2,52	32275
Robustness test 1	Distance between respondents' placement and expert placement of parties	5	0	10	7,45	2,49	31109
Robustness test 2	Distance between respondent's placement of parties and the mean placement in the country sample	2	0	10	7,69	2,46	32275

^{*} Number of parties placed on the left-right scale by the respondent.

^{**} Indicating a low level of ideological comprehension

^{***} Indicating a high level of ideological comprehension

2.3.2 Political knowledge

The analyses of chapter four will apply political knowledge as a dependent variable. While several single-countries datasets include knowledge questions, cross-national studies on political knowledge are rare.⁴⁵ CSES thus presents one of the few opportunities for a comparative assessment of political knowledge of citizens from different countries (Elff 2009: 2). Each national election study contributing to the CSES includes three questions on political knowledge in its questionnaire, and it is up to the national collaborators to choose the most relevant items in their country. The content of the questions and whether the respondent is

⁴³ Not all countries are represented with five parties. See the appendix for information about how many and which parties that are coded for each country.

⁴⁴ Gordon and Segura makes use of such a measure, and calculate the absolute distances between the respondent's placements of each of his or hers parties on the 10-point ideological scale and the mean placement of those parties by the total of respondents from that society.

⁴⁵ Some are mentioned in Delli Karpini and Keeter 1996: 90.

provided with a set of pre-formulated choices of answers thus vary from country to country.⁴⁶ There is one instruction provided from the CSES planning committee, however, which states that “the set of questions should include one that is easy (i.e. 2/3 will answer correctly), one that is slightly more difficult (i.e. 1/2 will answer correctly), and one that is difficult (i.e. 1/3 will answer correctly)”.⁴⁷

This strategy has yielded mixed results. In some countries the questions have no variance; in other countries the within-correlations between questions are very high; and few countries resemble the distribution suggested in the instructions. Elff (2009: 18-19) concludes that ‘there are serious doubts about the equivalence of knowledge questions employed in the election studies that contributes to the CSES. The number of correct responses to the knowledge question batteries varies considerably across samples, even controlled for education, probably the most powerful predictor of political knowledge’. Nevertheless, several studies have applied the CSES-questions to operationalize political knowledge (Gronlund and Milner 2006; Sheppard 2014). In my thesis it is necessary to make use of this measure in order to evaluate the research question three; whether it is an adequate strategy to interchangeably apply ideological comprehension and political knowledge as a proxy for political sophistication when making use of comparative data.

The coding of political knowledge could be done in at least two ways, as seen in table 2.7. First, the three questions could take the form of an unweighted index, which simply means to count the number of questions a respondent has managed to answer correctly (as seen in Sheppard 2015; Grönlund and Milner 2006; Clark 2013). Second, the respondent could be rewarded for correctly answering the most difficult questions by constructing a weighted

⁴⁶ For example, the French election study of 2002 asks the following questions: 1. “Laurent Fabius is a member of the Socialist Party” (response alternatives: “true”/“false”) 2. The deputies are elected by proportional representation (“true”/“false”) 3. Michelle Alliot Marie is the president of RPR (“true”/“false”). In contrast, the German 2002 election survey asks the following questions, providing no response alternatives: 1. “Who is the current minister of the Interior?” 2. “How many federal states does Germany have after the reunification?” 3. “How many countries are currently members of the European Union?” The questions hence differ both with regards to the question format (open or closed questions) and in content (e.g. the German survey includes a question about foreign affairs, the French does not)

⁴⁷ http://www.cses.org/plancom/module4/CSES_Module4_TheoreticalStatement.pdf

index.⁴⁸ I test both these measures in the analysis in chapter four, the weighted index being applied in order to ensure the validity of the operationalization.

Table 2.7 Dependent variable: Political knowledge

Variable	Coding description	Min.*	Max.**	Mean	Std.dev.	N
Main dependent variable	Unweighted index. Simple count of number of political knowledge questions answered correctly.	0	3	1,69	0,97	33460
Robustness test	Weighted index. First knowledge question is rewarded with 1 scale unit, second question 2 scale units, third and more difficult question rewarded with 3 scale units	0	6	2,95	2,08	33460

* Indicating a low level of political knowledge (none of the questions are answered correctly)

** Indicating a high level of political knowledge (all questions answered correctly).

2.3.3 Missing values

Generally, “don’t know” (DK)-replies in survey data are set to missing, as such replies seldom convey any meaningful information about the respondent.⁴⁹ In the case of political sophistication, however, the “don’t know”s might have a substantive meaning and reveal that the respondent lacks information about the issue at hand (Mondak 1999: 57-58). The question of how to handle DK-replies is thus frequently debated in the political sophistication-literature, and several solutions as to how to code and interpret the answer has been proposed.

The first and ‘traditional’ way of coding DK is to treat them as incorrect answers. Converse (1964) and later works of political scientists and social psychologists has shown that the lack of providing an answer is indeed equivalent to not knowing⁵⁰ (see also Luskin and Bullock 2011). A contrasting and second strategy is held by Mondak (1999; 2001; 2002), which argues the inappropriateness of collapsing incorrect answers and the DK into a single “absence of knowledge” grouping. Mondak claims that certain groups, and especially women, are more

⁴⁸ In this latter case, a correctly answered first question will give a score of one, the second question a score of two, and the third question will be rewarded with a score of three.

⁴⁹ E.g. if a respondent answers that she does not know whether she trusts the politicians in her country, it is not possible to say whether she possesses high or low levels of trust.

⁵⁰ “Don’t know”-answers are central to Converse’s “Black and white-model”. This model comprises two types of respondents: those who had real and stable positions on an issue (the consistent) and those who had no real opinions on the issue and changed their answer from interview to interview (the inconsistent). Converse found this latter group to hold “non-attitudes” more than the consistent did, and the “don’t know”-answer he claimed underlined the fact that the inconsistent had “no opinion” (Converse 1964; 2000).

inclined than other groups to answer that they don't know the answer to a knowledge-question (see also Strømsnes 1995; Barabas et al 2014). Men, on the other hand, are more likely to guess. This inflates their knowledge levels while the female levels are underestimated, the result being that around 50% of the 'gender knowledge gap' is in fact illusionary (Mondak and Anderson 2004: 499). The third strategy would be to handle the DK as missing, and impute values for political sophistication based on the rest of the sample (as seen in e.g. Gordon and Segura 1996: 133).

As imputation of values may to some degree fabricate data and distort the association between variables (Brick and Kalton 1996: 226), I follow the advices of Luskin, Bullock and Converse and code the category as an incorrect answer. When interpreting the results from the regression analyses, I will take the 'gender gap' into account.⁵¹ The CSES-questions regarding political knowledge and ideological positions of parties have multiple "don't know"-alternatives. In the coming analyses, the DKs and the equivalent categories are coded as low levels of ideological comprehension and political knowledge.⁵² The table below indicates which of these missing categories are coded as "incorrect answer", and which of the categories that are set to missing in the regression analysis.

When excluding the 'refused to answer' and the 'system missing'-categories from the analysis, the effective sample decreases from 39 487 to 32 225 respondents. The majority of these missing respondents come from Canada and Belgium; Belgium are dropped entirely as the respondents did not receive the question about ideological placement of parties, and the Canadian electoral survey did not pose the question to more than one third of its sample.⁵³

⁵¹ This strategy is also followed by Grønlund and Milner (2006) and Barabas et al. (2014).

⁵² When coding the main ideological comprehension-dependent variable, a respondent answering DK on e.g. party A will receive a value of 10 (the lowest level of ideological comprehension). If providing an answer to party B, and the distance from the expert placement is e.g. 1 scale unit, the respondent will receive a final value of $(10+1/2=)$ 5,5 (or 4,5 when the index is inverted). The same applies to the coding of the knowledge-index.

⁵³ Of the 7212 respondents missing, 2225 of these are Belgic and 2921 are Canadian respondents.

Table 2.8 Missing statistics, dependent variables

Variable	Missing category	Included*	Excluded**	Percent of total N (100)		
Knowledge				Q1	Q2	Q3
	Don't know	x		9,29	13,9	25,6
	Refused to answer		x	0,3	0,2	0,2
	Missing		x	11,31	13,1	13
Ideology				Party A	Party B	
	Haven't heard of left-right	x		0,2	0,2	
	Haven't heard of party	x		1	0,9	
	Don't know	x		5,1	5,5	
	Refused to answer		x	0,5	0,5	
	Missing		x	17,1	17,3	

* Category coded as 'incorrect answer' or low comprehension of the parties' ideological position

** Set to missing

2.4 Operationalization: Independent variables

2.4.1 Country-level

Political system-variables

A range of variables is frequently suggested as operationalizations of “PR-systems” (see for example Lijphart 1999; 2009). I follow with the analyses of Granberg and Holmberg (1989), Niemi and Westholm (1984), Gordon and Segura (1996) and Clark (2013), and test the significance of five of these variables, which regard the party system, the electoral system and the separations of power.

To operationalize multiparty system I make use of a measure of the *effective number of parties* (ENP) proposed by Laakso and Taagepera (1979), the standard numerical measure for the comparative analysis of party systems (Caulier and Dumont 2003: 2). The idea behind the measure is to count parties and at the same time to weight the counting by their relative strength, i.e. by their seat share in parliament.⁵⁴ The ENP in my sample ranges from 1,93 (the United States) to 7,02 parties (Belgium). However, Gordon and Segura suggest that the effective number of parties have an inverse effect on sophistication when the number of

⁵⁴ The effective number of parties is computed by formula:

$$N = \frac{1}{\sum_{i=1}^n p_i^2}$$

Where n is the number of parties with at least one seat, and p_i^2 the square of each party's proportion of all seats.

parties exceeds five, as a high degree of fragmentation could lead to confusion (1996: 131). Therefore, a squared ENP variable is included in the models to control for a curvilinear effect.

Second, I include two variables operationalizing the voting systems.⁵⁵ A variable expressing the effect of a majoritarian, ‘first-past-the-post’ electoral system versus a PR-electoral system is tested, labeled *PR electoral systems* in the analysis. From the original variable, ranging from 1 to 3⁵⁶, I have generated a dummy variable that takes on the value of 1 if the country practices proportional elections and 0 if it has a mixed or majoritarian electoral system. The *proportionality* of the electoral system is also tested. Gallagher’s index, or the least square index, is used to measure the (dis)proportionality of an electoral outcome; that is, the difference between the percentage of votes received, and the percentage of seats a party gets in the resulting legislature (Gallagher 1991).⁵⁷ A Gallagher score of 0 would indicate that the election produced perfectly proportional outcomes, and the higher scores, the higher the disproportionality. In my sample, the countries’ scores range between 0,81 (the Netherlands) and 16,6 (The United Kingdom). In order to ease the interpretation of the regression analyses the measure is inverted, so that high levels correspond to a high degree of proportionality.

The last two variables applied regard the separations of powers, which in some instances differ in majoritarian and PR-countries (Lijphart 1999: 241). The analyses include two dummy variables, which measure the presence of a strong presidential power and a federal system. The variable ‘*Non-federal state*’,⁵⁸ take on a value of 0 if the country has weak or strong federalism and 1 if it is a non-federal state. ‘*Parliamentary system*’ conveys whether the country has a strong presidential power or whether the parliament is dominant in the policy making process. A value of 1 indicates that a parliamentary system or a semi-presidential

⁵⁵ As seen in Gordon and Segura (1996), as well as Clark (2013).

⁵⁶ Where 1 = PR-systems, 2 = mixed systems and 3 = majoritarian electoral systems

⁵⁷ Calculated by the formula:

$$LSq = \sqrt{\frac{1}{2} \sum_{i=1}^n (V_i - S_i)^2}$$

Where V denotes the share of votes, and S the share of seats.

⁵⁸ The original variable ranges from 0 to 2, where 0 = no federalism, 1 = weak federalism, 2 = strong federalism

system where the parliament dominates the policy-making process (e.g. Germany), and 0 presidential systems.⁵⁹

Inequality-variables

The second hypothesis regards the effect of socio-economic equality. In order to measure the inequality-hypothesis, I apply the same operationalization as Grønlund and Milner; the Gini coefficient.⁶⁰ The Gini coefficient is the most commonly used measure of inequality, and quantifies the extent to which the distribution of income among households within an economy deviates from a perfectly equal distribution. Thus a Gini index of 0 represents perfect equality, while an index of 1 implies perfect inequality. The income distribution can be calculated on the basis of the population's net income, i.e. post taxes and transfers, or by the gross income, i.e. before taxes. I apply the post-taxes distribution, as it expresses the disposable income and also to a certain extent whether the government has engaged in redistribution through means of taxation.⁶¹ In my sample, the Gini index ranges between 0,23 (Denmark) and 0,38 (The United States).

Control variables

Countries' with low Gini levels also could also be countries offering wide spread public education to its citizens, so that a possible effect of equality on political sophistication in reality conveys an effect of education schemes. In order to control for such an effect, I include one last control variable at level 2, namely the countries' welfare and education levels. For this purpose I utilize the Human Development Index (HDI), which is a composite statistic of a set of welfare indicators that ranks countries at a human development scale. It is of particular relevance for this thesis due to that it includes information about overall education levels of the population, in addition to the countries' economic development.

⁵⁹ Original variable coded as: 0 = parliamentary system, 1 = semi-presidential system by parliament, 2 = hybrid system, 3 = semi-presidential dominated by president, 4 = presidential system. Categories 3 and 4 are counted as presidential systems.

⁶⁰ In theory there could be several ways of operationalizing this hypothesis. Grønlund and Milner e.g. point to the importance of a public broadcaster in "high civic societies". However, there is unfortunately no comparative dataset entailing detailed information about the sample-countries' media policies. Due to this, and in order to restrict the analyses to my research question and the 'inequality'-hypothesis, media variables will not be included.

⁶¹ See <http://data.worldbank.org/indicator/SI.POV.GINI>

2.4.2 Individual-level

A set of socio-demographic variables will be analysed in the coming analyses.⁶² *Education*⁶³ is consistently one of the strongest predictors of political sophistication (Converse 1964, Zaller 1992; Delli Carpini and Keeter 1996; Lewis-Beck et al 2008). The original variable consists of eight categories, and I recode into four categories; no formal or completed education, completed primary education, complete secondary education and the last category correspond to a complete undergraduate degree.⁶⁴

Gender⁶⁵ is recoded into a dummy and takes on a value of 0 for men and 1 for women.

*Age*⁶⁶ is a continuous variable ranging from 17 to 101 years. As the literature holds that it is 'middle aged' people are most politically sophisticated, i.e. that the effect decreases with high age (see e.g. Strømsnes 1995), I introduce a squared age-variable into the equation in order to account for a possibly curvilinear effect. To operationalize *income*⁶⁷ I include a dummy variable for household income that takes on the value of 1 if the respondent belongs to the fourth or fifth income quintile in their country (the remaining respondents given a value of 0). Lastly, I control for *union membership*⁶⁸ and *party identification*⁶⁹ by including two dummies. They take on a value of 1 if the respondent is a union member and 1 if the respondent has answered that he or she identifies with a party.

⁶² Unfortunately, the CSES-data does not include information about individual's media consumption and political interest. Nevertheless, I assume that some of the effect of these variables is attended for by including education. Political interest and media consumption and education are consistently observed to be a robust and strong relationship. See for example Hillygus (2005) and Delli Karpini and Keeter (1996).

⁶³ Education is coded in variable C2003. For the countries retrieved from module two, the following variables are applied: B2003 (education), B2002 (gender), B2001 (age), B2020 (household income), B2005 (union membership)

⁶⁴ 1'None' and 2'Incomplete primary' = No education

3 'Primary completed' and 4'Incomplete secondary' = Completed primary education

5 'Secondary complete', 6 'Post-secondary trade/vocational school' 7 'University undergraduate degree incomplete' = Completed secondary education

8 'University undergraduate degree completed' = Completed university undergraduate degree

⁶⁵ Information about *gender* is retrieved from variable C2002

⁶⁶ C2001

⁶⁷ C2020

⁶⁸ C2005

⁶⁹ C3020_1: "Are you close to any political party?"

2.4.3 Centering of variables and missing values

In regression analysis, it is often recommended to center the variables in order to ease the interpretation of the intercept and the parameter estimates (Hox and Maas 2005: 785).⁷⁰ Some of the independent variables I apply (the effective number of parties, the proportionality index, Gini, HDI and age) do not have a value of 0 that can be interpreted substantively. Therefore, I chose to center these variables by subtracting the mean value. In a multilevel data structure there are two means available; the total sample mean or the country's mean. If one expects variation in the dependent variable due to relative differences within countries, the group mean should be subtracted (Hox 2006: 61-62). I have no such assumption, and I subtract the total sample mean from the mentioned variables. A value of zero on the variables thus corresponds to the total sample mean.

The level 1-variables exhibit some missing values. In order to ensure that the missing values do not pose a threat to the samples' representativeness, I have assessed the strength of the relationships between the missing values and my different versions of the dependent variables. Some of these relationships were significant, albeit very weak in strength. With a sample of a high number of respondents, the strength of the relationship should be emphasized rather than the significance level (Christophersen 2009: 166). Hence, missing values are not regarded as threatening to the coming analyses, and missing values are excluded listwise.

⁷⁰ Centering simply means subtracting a constant from every value of a variable. This redefines the 0 point for the predictor to whatever value subtracted, hence shifting the scale but retaining the units. The result is thus that the slope between the predictor and the response variable does not change, while the interpretation of the intercept and the coefficient does.

Chapter 3

Ideological comprehension in a comparative perspective

3.1 Ideological comprehension and contextual variables

In this thesis I attempt to answer to what degree and in what way a citizen's level of "political sophistication" is dependent on the political and socio-economic context of the country she or he resides in. The following chapter will answer the first research-question, namely:

*To what degree and in what way is a citizen's level of **ideological comprehension** dependent on the political and socio-economic contextual variables of a country?*

The debate over to what degree there are systematic variations across countries in citizens' political sophistication originates from studies of the United States and Sweden. Swedes, regardless of their education and socio-economic background, displayed impressively high levels of knowledge about politics, ideology and current issues (Granberg and Holmberg 1988: 21, 23, 29, 37), whereas the great majority of Americans came up short (Converse 1964: 248).

Today, the "PR vs. majoritarian"-hypothesis and the "inequality"-hypothesis are regarded as competing explanations as to why citizens of different nationalities display very different sophistication levels. For scholars advocating the first explanation, the "sophistication gap" was ascribed to the differences in the American and Swedish political systems. Later research has further developed these hypotheses and proposed other possible explanations to the differences across countries. In particular, it is claimed that countries with proportional elections and multiparty-systems foster more sophisticated citizens, while individuals living in majoritarian countries will know less about politics and ideological stands (Gordon and Segura 1996). Scholars advocating the inequality-explanation, however, hold that citizens living in equal societies, where the government leads redistributive policies, will be more sophisticated than their counterparts in unequal societies (Grønlund and Milner 2006).

This makes up the starting point for my analyses, which will proceed as follows. I first seek to test how the two competing hypotheses affect political sophistication, by carrying out a series of regressions. Then I will look further into how these contextual explanations can be integrated with explanations of political sophistication levels at the individual level. By applying cross-level interaction terms, it is possible to assess how contextual variables might condition the effect of education and other socio-economic individual resources. To ease the interpretations of the findings, the results regarding the PR, low-inequality country Sweden and the majoritarian, high-inequality United States will be highlighted when suitable. The four hypotheses related to the first research-question can be reviewed in table 3.1.

Table 3.1. Hypotheses: Ideological comprehension

H ₁	Individuals living in PR-countries display higher levels of ideological comprehension than citizens in majoritarian countries
H ₂	Individuals living in countries with a high level of socio-economic equality can comprehend ideology better than individuals in low-equality countries
H ₃	In PR-countries, socio-economic background is of less importance for understanding ideology than in majoritarian countries
H ₄	In socio-economic equal countries, socio-economic background is of less importance for understanding ideology than in countries with high inequality

As mentioned in chapter two, individuals residing in 21 western, advanced democracies make up the units of analysis for this thesis, where the ideological scale is structuring the political scene. The dependent variable is thus a measurement of the distance between respondent and expert placement of parties on an ideological scale. To ensure validity and reliability of the findings, I have carried out two important additional tests. Firstly and for reasons of validity, the analyses are rerun with two alternative dependent variables: i) the variable capturing distance from population mean⁷¹ and ii) the placement of five rather than two parties.⁷²

⁷¹ As seen in Gordon and Segura (1996)

Secondly, I will exploit the complete pool of data (i.e. 52 country-years) in order to ensure the reliability of my findings.⁷³

3.2 Citizens' comprehension of parties' ideological positions: A first glance

The first hypothesis assumes that individuals living in PR-countries like Sweden will exhibit higher levels of political sophistication than citizens living in majoritarian countries similar to the United States. So what does the picture look like two decades after Granberg and Holmberg's documentation of Sweden and the U.S.? Table 3.2 provides a first answer.

The table shows how difficult it is to place the political parties on an ideological left-right scale, by listing the mean score of "ideological comprehension" of each country in descending order.⁷⁴ The variable is constructed by subtracting the respondents' placement of the two biggest parties on a left-right scale from a country-expert's placement of the same parties.⁷⁵ Note that the variable is coded so that a high score (10) means that the respondent exhibits high levels of ideological comprehension and has no deviations from the expert placement.⁷⁶ A score of e.g. 8 indicates that the respondent misjudged a party by two scale-units.

⁷² Which serves as an even "tougher" test of ideological understanding for the countries with more than two parties, see discussion under 2.3.

⁷³ The full results from the large sample can be found in the appendix.

⁷⁴ Belgium is excluded from the analyses due to missing values on the left-right placement.

⁷⁵ And then divided by 2. See chapter two for a thorough description.

⁷⁶ A more intuitive way to code the variable in table 3.1. would be that 0 = no deviations from the expert and 10 = maximum deviations from the expert placement. However, in order to interpret the regression analyses in the coming tables, 10 means no deviations from the expert placement and a high level of ideological sophistication.

Table 3.2 Ideological comprehension.
Country means.

Country	Mean	Std. Dev.	N
Canada	8,34	1,14	1574
Germany	8,30	1,14	1918
Denmark	8,27	2,05	2026
Portugal	8,25	1,30	1009
France	8,21	1,45	2000
Norway	8,08	1,78	1770
Australia	8,06	1,22	1383
Greece	8,05	1,91	1009
Switzerland	8,03	1,72	2826
Finland	8,01	1,88	1278
Spain	8,00	2,34	1211
Sweden	7,95	2,53	1136
Netherlands	7,88	2,45	2359
Iceland	7,78	2,78	1496
Austria	7,02	3,04	1165
Italy	6,59	2,27	1263
New Zealand	6,34	3,55	1579
Ireland	6,27	3,65	2367
United Kingdom	6,07	3,68	817
United States	5,95	3,10	2089
Total	7,58	2,52	32275

Following Granberg/Holmberg and Gordon/Segura's logic, one would expect PR-countries like Norway, Denmark, Sweden and Switzerland to rank at the top of the table. However, Canada is in the lead, with the lowest 'misjudgment' of the parties' left-right position in the entire sample. With a mean of 8,34 the Canadian respondents misjudge the parties compared to the "correct" expert-answer with approximately 1,5 left/right-scale-units.⁷⁷ Thereafter follows Germany, Denmark and Portugal, while the Swedish respondents place themselves in the middle. At the very bottom of the table, however, the majoritarian countries United States and United Kingdom are found. Indeed, the table suggests that the Americans have a hard time assigning the correct ideological score to the Republican Party and Democratic Party: the American public misplaces the parties by four scale-units. In effect this means that if the expert-placement of the Democratic Party is 5 (where 0 means left and 10 means right), most Americans placed the party at 1, and at the very left-hand side of the scale.

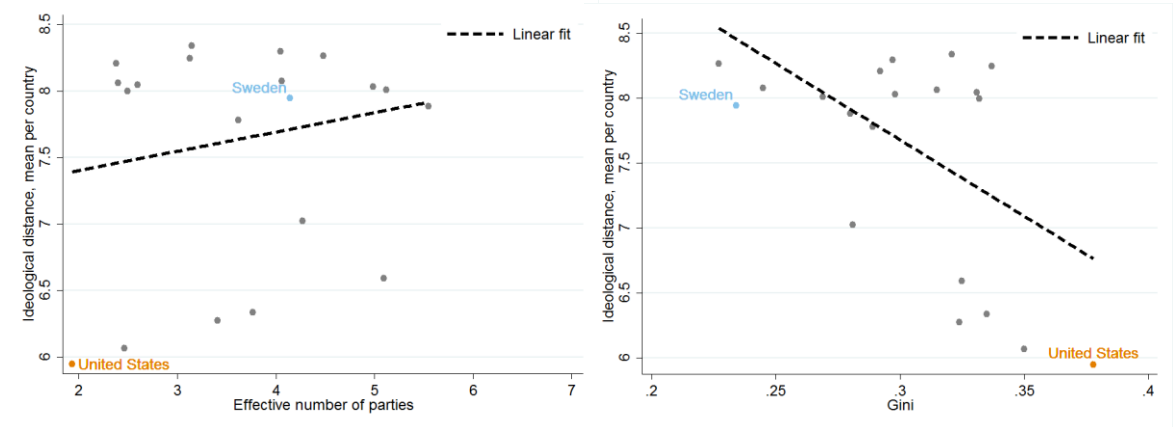
⁷⁷ The parties the Canadians have been asked to place are the New Democratic Party and the Conservative Party.

The standard deviation in the American and British samples is also larger than the countries ranking at the top, and we can see that as the mean decreases the standard errors increase. The consensus in the literature that the American public’s sophistication level has “a high variance, but a very low mean” thus can be applied to my sample, indicating that there might be large differences in sophistication levels between groups in some countries. Whether these differences could be due to individual characteristics such as education, gender and income will be examined in the coming pages.⁷⁸

3.3 Bivariate relationships

The initial table thus reveals that the picture is not as black and white as one might expect in terms of the party-system hypothesis. Could the inequality-hypothesis explain the apparent lack of a consistent pattern? Figure 3.1 illustrates H₁, the “PR vs. majoritarian”-hypothesis, and H₂, the “inequality”-hypothesis. The country-means from table 3.2 are plotted in a two-dimensional space, and in the first figure the multiparty variable (measured as effective number of parties) makes up the x-axis, and in the bottom figure the x-axis is labeled by the Gini coefficient ranging from 0.2 to 0.4; low Gini-values indicating low levels of inequality.

Figure 3.1: Two-way plots. Country means of ideological comprehension and effective number of parties/inequality.



⁷⁸ The same pattern, with only small deviations, is revealed when utilizing the Gordon and Segura-dependent variable (respondents are asked to rank five instead of two parties), the five-party-variable (respondents’ placement of parties are subtracted from the population mean rather than the experts’ judgment), and when making use of the full 52-country-years dataset.

In the first figure, it looks like Granberg/Holmberg and Niemi/Westholm were right in their assumptions – at least if concentrating on Sweden and the United States only. Sweden, with a effective number of 4,2 parties and an ideological score of 7,9 is in the upper part of the figure, whereas the U.S., holding 1,9 effective parties and a mean ideological score of 5,95, places itself neatly in the lower left hand corner. However, the linear fitted line at best indicates a weak, positive relationship between the number of parties and the level of ideological comprehension.

The fitted linear line in the lower figure suggests a stronger negative relationship between ideological coherence and socio-economic equality. In the upper left hand corner, egalitarian and social democratic Sweden is found with an inequality level of 0.24. United States, on the other hand, is found in the lower, right hand side of the figure with the highest Gini in the sample: 3,38. The remaining countries spread out in a more consistent way than seen in the first figure.

In order to evaluate the two first hypotheses in a slightly more thorough way, I proceed with presenting six simple bivariate regressions illustrating the relationship between ideological comprehension and the set of contextual variables: five variables operationalizing political systems, and the Gini coefficient measuring the inequality-level.

In table 3.3, model 0 is an empty multilevel model, and serves only to provide an impression of the allocation of variance across levels in the sample. The intraclass correlation (ICC) is calculated based on the variance-estimates, and confirms that substantial differences occur across countries in the sample concerning ideological sophistication: 11% of the variance is found at the country-level.

Table 3.3. Multilevel, bivariate regressions. Political system-variables and ideological comprehension.

	0	1a	1b	1c	1d	1e	1f
Constant	7.57 ^{***}	7.61 ^{***}	7.57 ^{***}	7.52 ^{***}	7.32 ^{***}	7.66 ^{***}	7.59 ^{***}
Effective number of parties		0.14					
PR electoral system			0.38				
Proportionality (Gallagher)				0.03			
Non-federal system					-0.15		
Parliamentary system						0.22	
Inequality (Gini)							-11,77 ^{***}
Estimates of variance							
Residual, level 1	5,65 ^{***}	5,65 ^{***}	5,65 ^{***}	5,65 ^{***}	5,65 ^{***}	5,65 ^{***}	5,65 ^{***}
Intercept, level 2	0,66 ^{***}	0,65 ^{***}	0,65 ^{***}	0,66 ^{***}	0,63 ^{***}	0,65 ^{***}	0,46 ^{***}
Pseudo R ² level 2		1,5%	1,5%	0%	4,5%	0%	30%
ICC	10,5%						
N							
Level 1	32275	32275	32275	32275	32275	32275	32275
Level 2	20	20	20	20	20	20	20

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

“Effective number of parties”, “Proportionality” and “Gini” are centered (0 = mean value, high values = high levels). “Parliamentary system” is a dummy where 0 = a system dominated by the president, while 1 = dominated by parliament. “Non-federal system” is a dummy where 0 = federal state and 1 = non-federal state. Missing omitted from the analysis. OLS-regression, ML estimation.

Models 1a to 1e do not provide much support to the “PR vs. majoritarian”-hypothesis. None of the bivariate relationships between the five party-system variables and ideological comprehension turns out significant at even $p < 0.10$.⁷⁹ Moreover, the variance related to the intercept does not change much when moving from model 0 to model 1e, and neither does the proportion of the explained variance (“Pseudo R²”).⁸⁰ The introduction of the variables accounts for 4,5% of the variance at level 2 at best, indicating that the first hypothesis can contribute little to explain why ideological comprehension varies across countries.

However, the validity and reliability-tests indicate some uncertainty concerning the effective number of parties-variable. Analyses utilizing the Gordon and Segura-variant of the dependent variable (distance from population mean, rather than expert placement) and the five-parties-distance (placement of five parties rather than two) both deem all five political

⁷⁹ Gordon and Segura suggest that the effective number of parties-variable have an inverse effect on sophistication when the number of parties exceeds five. Therefore, a squared effective-party variable was included in model 1a to control for the possibility of a curvilinear effect. This did change neither the coefficient nor the significance levels.

⁸⁰ The pseudo R² is estimated by: (variance model 0) – (variance model [a, b, c, d, e or f]) / (variance model 0).

system-variables insignificant. In the three-level, 52-country-years model, however, the effective-number of parties variable turns out significant at $p < 0.05$.⁸¹ The proportion of explained variance at level 2 moreover increases up to 13% in the three-level-model. Due to the effect present in this sample, H_1 will be further investigated by utilizing the effective number of parties-variable in the final model in section 3.6.

Nevertheless, there is little doubt that the effects of the party system-variables are not as straightforward as claimed in previous literature: there is no effect of federalism, a PR-electoral system, parliamentarian domination and proportionality, like Gordon and Segura assumed and found in their article from 1996.

How about the effects of socio-economic variables? Grønlund and Milner's assumption about inequality-levels can be reviewed in model 1f. Quite clearly, this model indicates that the socioeconomic variable bivariately influences citizens' sophistication levels to a much greater extent than the political system-variables do. The Gini coefficient contributes to a high proportion of explained variance, and accounts for 30% of the variation in ideological comprehension across countries in the sample. The centered coefficient is strong and significant at $p < 0.001$, and suggests that when moving from a country with a mean level of inequality to a country with a high level of inequality, ideological sophistication increases by 0,9 scale units. When going from the lowest level of inequality to the highest level of inequality, the predicted increase in ideological sophistication is as much as 1,78 scale units.⁸²

Identical results are achieved when carrying out the bivariate regressions on the 52-country-years data, and when making use of the Gordon and Segura-dependent variable and the "tougher" five-parties-variable. When making use of the latter dependent-variable version, the predicted effect of the Gini coefficient actually increases to 12,76, as opposed to 11,77 in table 3.3.⁸³ In other words, socio-economic equality exerts significant influence on ideological sophistication levels, and it accounts for a large part of the explanation as to why ideological comprehension varies across countries.

⁸¹ When a squared effective-party-variable is introduced. See chapter two, paragraph 2.4, for explanation. The full results of this analysis can be consulted in appendix online.

⁸² $(-11,77 * 0,076) = 0,9011$. $((-11,77 * -0,0744) + (-11,77 * 0,076)) = 1,776$

⁸³ The Gini coefficient is somewhat weaker in the three-level model (-9,70), equally strong in the analysis with the population mean-ideological dependent variable (-11,08) and somewhat stronger in the analysis with five parties (-12,76). All coefficients are significant at $p < 0.01$.

3.4 Final multilevel model

Thus far, the plots and bivariate regressions indicate that Grönlund and Milner's claim about "civic literacy" and the importance of equality is warranted, while only the effective party-variable exerts a significant influence on ideological sophistication. The full multilevel model in table 3.4 tests all four hypotheses in a multivariate analysis, introducing level 1-variables and interaction terms.

Model 2a includes both the effective number of parties and the Gini coefficient.⁸⁴ The effective party-variable is not significant when controlling for the level of inequality, in any of the samples.⁸⁵ To use Granberg and Holmberg's words, the party system does seemingly *not* matter in my data, and model 2a might indicate that the "PR-countries"-effect is spurious or goes indirectly through redistributive and social policies. As the effective number of parties-variable is not significant when controlling for the Gini coefficient, the variable is not displayed in the remaining models.⁸⁶

Model 2b shows that inequality matters for an individual's comprehension of the parties' ideology, as the Gini coefficient remains strong and significant when introducing the individual level variables and a control for the development level in the country (HDI).⁸⁷ The predicted effect of -11,03 means that when going from the country with the lowest level of inequality, Denmark, to the country with the highest level of inequality, United States, the predicted level of ideological comprehension increases with 1,66 scale-units.⁸⁸ However, note that the strength of the Gini-coefficient is reduced with 26% (from -14,94 to -11,03) and that the level2-variance is reduced by 0,06 when individual characteristics are introduced in model 2b.⁸⁹ This indicates that the level1-variables vary systematically across countries, i.e. that some countries have better-educated citizens than others, and that a part of the Gini-effect captures this in model 2a.

⁸⁴ The four remaining political system-variables have also been tested in models 2a-2c. None of these variables turned out significant.

⁸⁵ See appendix for full results from the full pool of data.

⁸⁶ The variable is tested in models 2b and 2c as well, but did not turn out significant.

⁸⁷ The constant now expresses the ideological comprehension of an averagely aged male living in a country with an average level of inequality and human development, with an average level of education, low income, no union membership and with no party identification.

⁸⁸ $(0,076 * -11,03 = -0,84)$, $(-0,0744 * -11,03 = 0,82)$, $0,84 + 0,82 = 1,66$ scale-units

⁸⁹ This is not only due to the introduction of HDI. When controlling for HDI in model 2b, the Gini coefficient is to 9,48 or by 33%.

Table 3.4. Multilevel regression analysis. The effect of level1 and level2-variables on ideological comprehension.

	0	2a	2b	2c
Constant	7,57 ^{***}	7,59 ^{***}	7,67 ^{***}	7,69 ^{***}
Level 2-variables				
Effective numbers of parties		-0,19	-0,15	
Inequality (Gini)		-14,94 ^{**}	-11,03 ^{**}	-11,15 ^{**}
HDI			-8,42	-8,44
Level 1-variables				
Education			0,56 ^{***}	0,55 ^{***}
Gender			-0,54 ^{***}	-0,53 ^{***}
Age			0,04 ^{***}	0,04 ^{***}
Age squared			0,0003 ^{***}	-0,0003 ^{***}
Union			-0,04	0,00
Income			0,25 ^{***}	0,25 ^{***}
Party identification			0,20 ^{***}	0,19 ^{***}
Interaction effects				
Gini*Education				2,26 ^{***a}
Gini*Income				1,30 ^{***a}
Gini*Gender				-2,40 ^{**a}
Estimates of variance				
Residual, level 1	5,66 ^{***}	5,66 ^{***}	4,90 ^{***}	4,90 ^{***}
Constant, level 2	0,67 ^{***}	0,44 ^{***}	0,38 ^{***}	0,39 ^{***}
Pseudo R2 level 1			13,4%	13,4%
Pseudo R2 level 2		34,3%	43,3%	41,8%
N level 1		32275	26135	26135
N level 2		20	20	20

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

Dummy-coded variables (1): Parliamentary (parliamentary system), gender (woman), union membership (member), income (two highest quintiles) and party identification (do identify with a party). Education: four groups, centered. Age, age squared, HDI and Gini are centered and continuous. Missing values excluded from the analysis. OLS-regression, ML estimation.

^a The interaction effects are not included in the same model, but are run separately in order to restrict the number of level2-variables. They are included in the same column here for reasons of space. The constant and remaining coefficients in the model are from the model with the Gini-education interaction effect.

In other words, the negative effect of inequality on ideological comprehension is reduced when taking into consideration that citizens e.g. are educated and enjoy high socio-economic status. The different individual characteristics are consistent with the previous literature, with some small exceptions. As expected, education exerts the strongest influence on ideological comprehension: when going from an individual with no education to a citizen with a university degree, the comprehension of parties' ideology increases with 1.7 scale units⁹⁰, controlled for the other variables in the model. All else being equal, women display 0,53 scale-units lower levels of ideological understanding, and the middle-aged are more sophisticated than the youngest and the oldest.⁹¹ Moreover, the analysis confirms that individuals with a high income have better ideological understanding than those with low income, and also the ones with high party identification compared to those who do not identify with any party. Not consistent with previous literature, the union membership-variable has no effect on sophistication levels. Except from this variable, the others are significant at $p < 0.05$, and increase the proportion of explained variance at level 1 with 13,4 percent.

The last model tests whether socio-demographic variables are more important for understanding the parties' ideology in majoritarian and high-inequality countries (hypotheses H₃ and H₄). Model 2c thus introduces a cross-level interaction term between the contextual variables and gender, income and education.⁹² I choose not to show the interaction effect between the effective number of parties-variables and the three individual level variables, as these cross-level interactions are not significantly different from zero.⁹³ H₃ is thus rejected in my data; the effect of education is not conditioned by the political system in which an individual resides.

Model 2c confirms H₄, as the interaction term between education and inequality is significant at $p < 0.001$. What does this mean? To illustrate the effect, I have plotted the marginal effect

⁹⁰ Lowest education: $-1,85 * 0,57 = -1,06$, highest education: $1,14 * 0,57 = 0,66$.

$0,66 + 1,06 =$ a difference of 1,71 ideological scale-units.

⁹¹ However, the squared age-variable is at $-0,0003$, indicating that the effect of being old does not decrease sophistication levels very much. Nevertheless, the age coefficient increases from 0,01 to 0,04 when introducing the age squared, and is therefore kept in the model.

⁹² Note that the interaction effects are not included in the same model, but are run separately in order to restrict the number of level2-variables. They are included in the same column here because of limited space. The constant and remaining coefficients in the model are from the model with the Gini-education interaction effect.

⁹³ See appendix for the results.

of education on the y-axis and the country's Gini on the x-axis in figure 3.3. All other independent variables level 1 are controlled for. The dotted lines display the 5%-confidence interval, and the full line shows the interaction effect between education and Gini on ideological comprehension.

Figure 3.3: Interaction effect between inequality and education

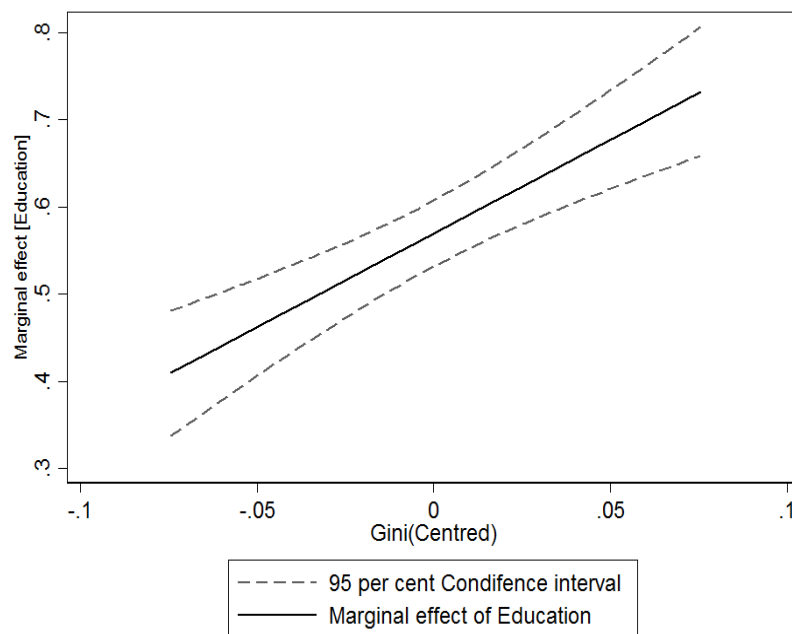


Figure 3.3 serves to illustrate that education-effects are conditioned by the socio-economic context, and can provide an explanation as to why the ideological comprehension-levels in some countries have a “high variance, but a low mean”, as seen earlier in the chapter. We can clearly see that the marginal effect of education increases in strength as we move along the horizontal axis, from low-inequality countries to high-inequality countries. In the country with highest inequality, the marginal effect of education on ideological comprehension is considerably higher (0,73) than in the country with the lowest inequality (0,41). Hence, the difference in ideological comprehension between well and un-educated groups in a high-inequality country is 2,18, whereas the same difference in a socio-economic country is 1,23.⁹⁴

⁹⁴ Controlled for other individual level variables.

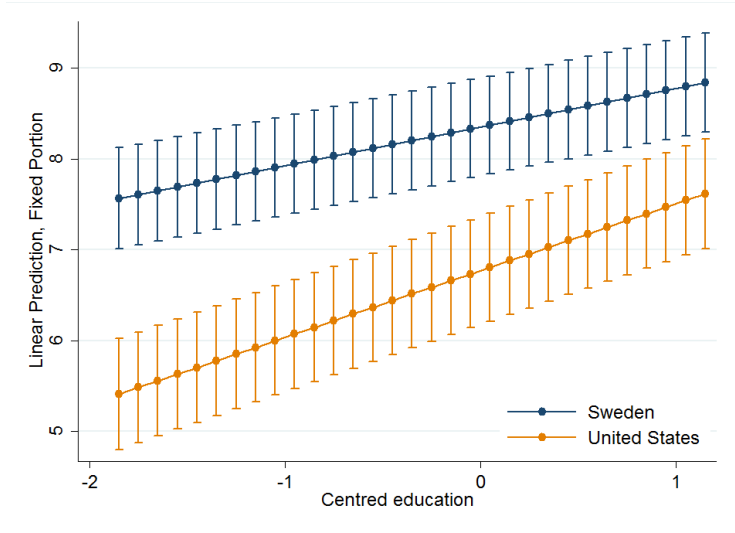
$((0,73 * 1,85 = 1,35) + (0,73 + 1,14 = 0,83)) = 2,18$

$((0,41 * 1,85 = 0,76) + (0,41 + 1,85 = 0,47)) = 1,23$

This means that education is almost twice as important for understanding ideology in unequal countries.

This effect can also be illustrated by plotting the results for the United States and Sweden. In figure 3.4, the predicted levels of ideological comprehension make up the y-axis, and education makes up the x-axis, while the blue line illustrates the predicted relationship for Sweden and the red line the predicted relationship for the United States, controlled for all other variables at level 1.

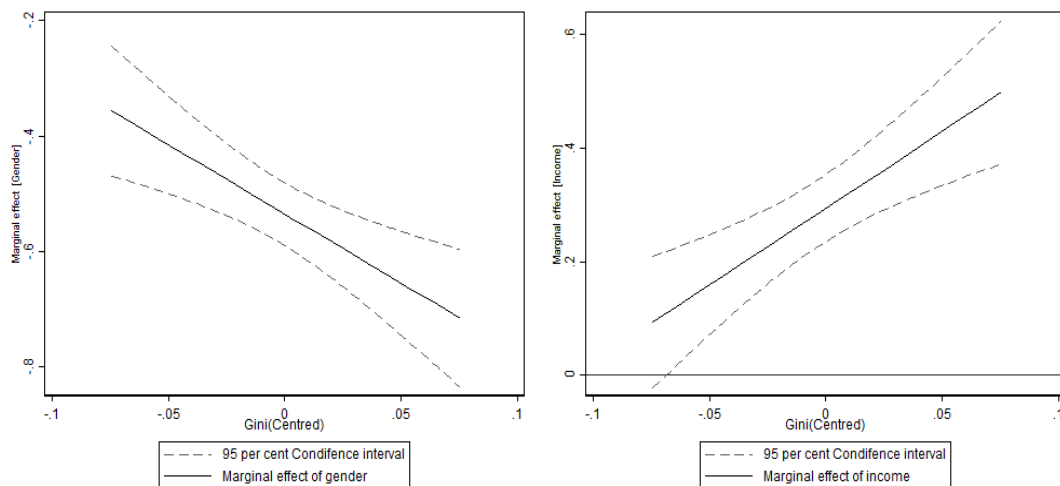
Figure 3.4 Predicted effects of inequality and education. Sweden and the United States. 95% confidence interval.



The steepness of the slopes illustrate that education is more important for ideological comprehension in the U.S. For uneducated Americans, the predicted level of ideological sophistication is 5,8 and for the highly educated 7,7. In Sweden, however, the comprehension among the uneducated is nearly just as high as among the educated Americans – 7,5 – while the educated Swedes score 8,6.

Table 3.4 also suggests an interaction-effect between the inequality coefficient and *gender*, as well as between the inequality coefficient and *income-levels*. The effect is illustrated in the marginal effect-plots in figure 3.5.

Figure 3.5 Interaction effect between gender and inequality and income and inequality



The figures reveal a similar pattern to figure 3.3. The first figure illustrates that the negative effect of gender increases with rising inequality-levels: Women living in a country with a low degree of inequality tend to be more ideologically sophisticated than women in more socio-economically unequal countries, controlled for other variables.⁹⁵ The figure to the left shows that the marginal effect of income increases as the inequality-level increases. For countries with the lowest levels of inequality, income has no significant effect on ideological comprehension, while in the more unequal countries the effect is as high as 0,5.⁹⁶

3.5 Summary and conclusion

The analyses in this chapter have tested four hypotheses in order to get a deeper understanding as to how inequality might affect individuals' ideological comprehension of the political parties. The results from the analyses suggest the following:

- The first hypothesis regarding the “PR vs. majoritarian”-divide comes up short in this analysis. Four out of the five PR-variables (federalism, a PR-electoral system, parliamentary domination and proportionality) Gordon and Segura assumed and found influential in their article do not exert a significant influence on ideological comprehension. The effect of a multiparty-system disappears when controlling for

⁹⁵ The marginal effect of gender in a low-inequality country is -0,36 and in a high-inequality country it is -0,71.

⁹⁶ The results from model 2c are also confirmed in the three-level and the alternative dependent-variables analyses

inequality levels. This might indicate that the PR-system-effect either is spurious or influence sophistication levels indirectly through the socio-economic policies the countries have implemented.

- H_2 is confirmed: Individuals living in countries with a high degree of socio-economic equality display higher levels of ideological comprehension than citizens living in more unequal countries, controlled for individual level characteristics. This effect stands out as robust, as all of the alternative analyses give the same results.
- There are no significant interaction-effect between PR-systems and education. H_3 is rejected.
- The interaction effects show that socio-economic context serves to strengthen or reduce the effect of some of the most important predictors of political sophistication: gender, income and education. In equal societies, education is less important for understanding the parties' ideological position than in unequal countries. Moreover, the gender gap in ideological sophistication levels is smaller than in unequal societies, and the distance between low-income and high-income groups is also reduced in equal countries. Hence, H_4 is confirmed.

The findings have several implications. First of all, the inequality-hypothesis of Grønlund and Milner is confirmed by the data at hand. In their article, the scholars do not attempt to run a multilevel analysis when testing the hypothesis, and my analyses serves as a more reliable test of how the socio-economic context influence political sophistication. The significant results of the Gini coefficient suggest that redistribution and inequality levels indeed can contribute to explaining why sophistication levels vary across countries.

Second of all, the results might suggest the hypotheses of Gordon/Segura (1996), Granberg/Holmberg (1989) and Niemi/Westholm (1984) should be rethought. A direct relationship between the political system and individual level ideological sophistication is not confirmed in my data, as the effect disappears when controlling for inequality. The theoretical assumption that e.g. proportional transformation of votes into seats makes it easier for the citizens of PR-countries to observe the consequences of their vote, as well as increasing the motivation to collect political and ideological information, could be less plausible as a result of

my analyses. Rather, my results might indicate that the effect is spurious or that it goes indirectly through the policies PR-countries and majoritarian countries.

Third of all, my analyses indicate that socio-economic equality reduces the effects of the well-established and well-documented predictors of political sophistication; education, gender and socio-economic status (see Delli Karpini and Keeter 1996; Barabas et al 2013; Sheppard 2015). In socio-economic societies with low socio economic inequality, citizens are also more alike in terms of comprehension of the ideological position of political parties. Individual resources like gender, socio-economic status and education are not 'required' to the same extent in equal countries in order to get the grip on party-ideology, than in countries where the citizens are unequally distributed on an income scale. All of these findings will be further discussed in chapter five. But first, let us turn to the question of another aspect of political sophistication, namely political knowledge.

Chapter 4

Political knowledge in a comparative perspective

4.1 Introduction

The second research question will be analyzed in this chapter, by putting the ‘inequality-hypothesis’ and the ‘PR vs. majoritarian-hypothesis’ under the test. As argued earlier, some methodological revisions will be made to previous research on political knowledge. Grønlund and Milner (2006) do not apply a multilevel-structure to their data and analyses, and they also make use of the political knowledge index, which is argued to be of little use in comparative investigations. These considerations will be taken into account when this chapter seeks to answer the second research question:

*To what degree and in what way is a citizen’s level of **political knowledge** dependent on the political and socio-economic contextual variables of a country?*

The concept of “political sophistication” will also be under investigation in this chapter. As argued in the theoretical chapter, political knowledge and ideological comprehension are treated as ‘equivalent’ measures of political sophistication and are interchangeably applied as a dependent variable in newer research regarding political sophistication. Elff (2009) points to inherent weaknesses in the operationalization of political knowledge, and raises serious doubts about the equivalence of the knowledge questions employed in the election studies that contribute to CSES. If Elff is right, the findings in this chapter should differ substantially from the findings regarding ideological comprehension. Hence, this chapter will also serve to give an indication as to what degree there is a correspondence between current measures of political sophistication. This is at the core of the third research question:

To what extent can current political knowledge and ideological comprehension-indicators measure political sophistication in a comparative perspective?

The research questions will be answered by applying the same structure and testing the same hypotheses H₁ to H₄ as in chapter three. The hypotheses can be reviewed in table 4.1. Moreover, I carry out the same reliability-test of the findings with the full pool of CSES-data, and I apply an alternative, weighted version of the political knowledge-index. When going through the analyses in this chapter, I will also comment briefly on similarities with, and differences from, the findings in chapter three. This is done in order to keep in mind the third research question.

Table 4.1. Hypotheses: Political knowledge

H ₁	Individuals living in PR-countries display higher levels of political knowledge than citizens in majoritarian countries do
H ₂	Individuals living in countries with a high level of socio-economic equality are more political knowledgeable than individuals in low-equality countries
H ₄	In PR-countries, socio-economic background is of less importance for understanding ideology than in majoritarian countries
H ₄	In socio-economically equal countries, socio-economic background is of less importance for understanding ideology than in countries with high inequality

4.2 Political knowledge and systematic variations: A first glance

While ideological comprehension reflects a citizen's ability to understand the ideological content of politics, political knowledge is defined as what levels of *factual information* the citizen retain in their memory. A study of political knowledge is thus a study of whether citizens are correctly informed about 'the rules of the game', the substantive business of politics (e.g. policies and their effects) and the political actors (Delli Karpini and Keeter, 1993).

The political knowledge-dependent variable is a construct based on such "information items". To recall briefly, the electoral studies contributing to CSES have included three knowledge questions in their surveys.⁹⁷ Adding the three political knowledge-questions to an index, my dependent variable ranges between zero and three; zero meaning that the respondent had all

⁹⁷ The CSES-instructions require that the first question is answered correctly by two thirds of the respondents; the second is to be answered rightly by half of the respondents; the third by only one out of three.

the questions wrong, and three indicating that the respondent answered all questions correctly. The weighted knowledge index is constructed by weighting the index after the degree of difficulty of each question.⁹⁸ In order to give a fairly simple first impression of how the political sophistication aspects relate to each other, the correlations between ideological comprehension and political knowledge are displayed in table 4.2.

Table 4.2. Correlations: Knowledge-indexes and variants of ideological comprehension from chapter three.

Correlated variable	Knowledge-index	Knowledge index (weighted)
Ideological comprehension (two parties)	0,27	0,24
Ideological comprehension (five parties)	0,27	0,26
Ideological comprehension (Gordon and Segura-version)	0,22	0,22

As the table reveals, the variables correlate at surprisingly low levels. When aggregating the dependent variables⁹⁹, the correlation is much weaker; approximately 8%. This suggests that there is only a weak relationship between ideological comprehension and the knowledge questions.¹⁰⁰ Whether these low correlations have consequences for the hypotheses and the following analyses are indicated in the first cross-national descriptive table 3.2, which displays the countries' mean political knowledge scores in descending order.

⁹⁸ Question one gives one 'correct'-point, a correct answer to question two is rewarded with two points, and the third question gives three points. The index thus ranges between zero and six.

⁹⁹ That is, constructing a mean score of political knowledge and ideological comprehension for each country.

¹⁰⁰ Correlations between each knowledge question and the ideological comprehension-variables do not display any other pattern (correlations vary between 0,15 and 0,19). As for the full pool of CSES-data, the correlations range between 0,21 and 0,25.

Table 4.3: Political knowledge, country-means*

Country	Mean	Std.Dev.	N
Ireland	2,15	0,86	2367
Finland	2,10	0,80	1264
Portugal	2,10	0,90	751
France	1,98	0,86	1999
Australia	1,93	0,90	1628
Italy	1,91	1,03	1439
Norway	1,86	0,99	1777
Austria	1,80	1,02	1165
Germany	1,77	0,87	1163
Iceland	1,69	1,00	1551
Switzerland	1,68	0,99	3143
New Zealand	1,60	0,89	1405
Netherlands	1,59	0,96	2359
Greece	1,56	1,11	1016
Sweden	1,52	0,86	871
Canada	1,44	0,90	3248
Spain	1,42	1,06	1182
United Kingdom	1,40	1,02	830
Belgium	1,38	0,82	2221
United States	1,22	0,98	2081
Total	1,69	0,97	33460

*Index ranging from 0 (no knowledge) to 3 (perfect knowledge)

While hypothesis H₁ and H₂ predict PR-countries¹⁰¹ and socio-economic equal countries to rank at the top, table 4.3 suggests a rather different pattern. Citizens of Ireland, Finland, Portugal and France turn out to have answered two out of three knowledge questions correctly, and achieve the highest level of political knowledge in the sample. This is surprising, considering that these countries (apart from Finland) are neither characterized by strong PR-features nor high levels of equality.¹⁰² Sweden, on the other hand, is found in the bottom part of the table, accompanied by majoritarian ‘opposites’ such as Spain, United Kingdom and the United States. Although the United States and United Kingdom rank at the bottom as expected, the remaining country ranking does not display the same pattern as seen in chapter three. The lack of a pattern might be explained by considering the way the knowledge questions are presented to the respondents in the national election surveys: In

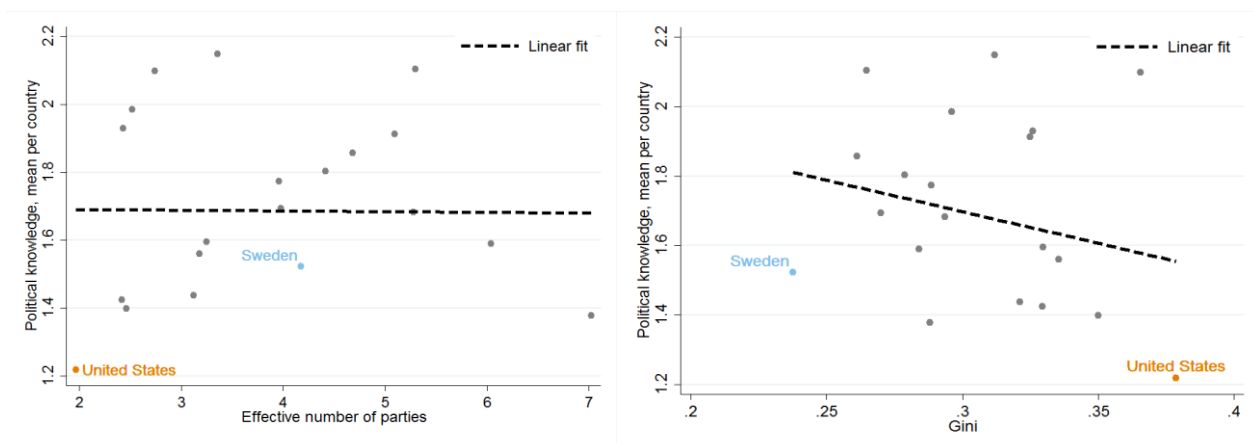
¹⁰¹ Denmark is omitted from this analysis, as knowledge questions were not included in the Danish election study. See appendix for missing descriptions.

¹⁰² Gini scores for the countries are: Finland 0,27; Portugal 0,37; France 0,30; Ireland 0,31. Lowest Gini in the sample is 0,24 and the highest Gini 0,39.

Ireland, which ranks at the top, respondents are asked to name different political leaders, and are presented with five optional answers to each question.¹⁰³ In the U.S., however, respondents are asked about which positions certain politicians hold, without any response options.¹⁰⁴

Moreover, it is worth noting that the standard deviations are quite similar across all countries in the sample. The deviations range between 0,80 and 1,11, meaning that the distribution of knowledge is more or less the same in every country. In chapter three, however, the standard deviations increased as the mean ideological comprehension *decreased*. This may be a consequence of the instructions from the CSES that require the election studies to design questions answered correctly by two thirds, one half and one third. Also, when arranging the countries after the weighted index, the pattern does not deviate from table 4.3. Is the apparent lack of pattern also true for the relationship between political knowledge and the systemic variables?

Figure 4.1 Two-way plots. Country means of political knowledge and effective number of parties/inequality.



¹⁰³ The Irish respondents are asked to name the leader of the largest party, Fianna Fail, the leader of the Green party and the Irish commissioner to the EU. See for more information:

http://www.tcd.ie/ines/index.php?action=browser_questions&group=30

¹⁰⁴ "Which position does [...] hold now? A: Dick Cheney, B: Nancy Pelosi and C: John Roberts". See:

http://www.electionstudies.org/studypages/anes_timeseries_2008/anes_timeseries_2008_codebook_post.pdf

4.3 Bivariate relationships

Figure 3.1 and 3.2 give an indication as to whether H_1 and H_2 might predict levels of political knowledge. The first figure plots the relationship between the effective number of parties in a country, and the second figure illustrates the country means of political knowledge and inequality.

Figure 4.1 does not change the impression that respondents' political knowledge deviates from their ideological comprehension. The countries spread out in a mixed pattern, suggesting that there is not a consistent tendency for PR-countries to exhibit higher political knowledge than the majoritarian countries do. In the Gini-plot, the fitted line indicates a negative relationship between inequality and political knowledge. However, table 4.4 shows that the relationship is not significant when included in a bivariate regression model. Here, all six systemic variables of H_1 and H_2 are bivariately regressed with political knowledge.

Table 4.4. Bivariate regressions. Systemic variables and political knowledge.

	0	1a	1b	1c	1d	1e	1f
Constant	1.71 ^{***}	1.71 ^{***}	1.62 ^{***}	1.71 ^{***}	1.58 ^{***}	1.84 ^{***}	1.72 ^{***}
Effective number of parties		0.01					
PR electoral system			0.13				
Proportionality (Gallagher)				0.01			
Non-federal system					0.21		
Parliamentary system						-0.23 [*]	
Inequality (Gini)							-2,08
Estimates of variance							
Residual, level 1	0,88 ^{***}	0,88 ^{***}	0,88 ^{***}	0,88 ^{***}	0,88 ^{***}	0,88 ^{***}	0,88 ^{***}
Intercept, level 2	0,069 ^{***}	0,069 ^{***}	0,065 ^{***}	0,068 ^{***}	0,058 ^{***}	0,057 ^{***}	0,064 ^{***}
Pseudo R ² level 2		0%	5,7%	1,5%	15,9%	17,4%	7,2%
ICC	7,3%						
N							
Level 1	33460	33460	33460	33460	33460	33460	33460
Level 2	20	20	20	20	20	20	20

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

“Effective number of parties”, “Proportionality” and “Gini” are centered (0 = mean value, high values = high levels). “Parliamentary system” is a dummy where 0 = a system dominated by the president, while 1 = dominated by parliament. “Non-federal system” is a dummy where 0 = federal state and 1 = non-federal state. Missing omitted from the analysis. OLS-regression, ML estimation.

The constant in the empty model (0) corresponds to the mean of correctly answered knowledge questions in the sample, controlled for no independent variables. The intra-class correlation is 7,3 percent, meaning that only seven percent of the variation in political knowledge can be ascribed to characteristics at level two. In contrast, the ICC in chapter three was 11 percent.

The model shows that none of the systemic characteristics contributes much to explaining the variance at level two. At best, the systemic characteristics contribute to explaining 17,4 percent of the total seven percent variance across countries. Moreover, model 1a to 1f reveals that only one out of six systemic variables have a significant effect on political knowledge when taking bivariate relationships into account. The only variable significant at $p < 0.05$ is the parliamentary system-dummy, which contrasts presidential systems (0) with systems where the parliament dominates the policy-making and political decision making-process (1).¹⁰⁵ However, the effect goes in the opposite direction as to what H_1 predicts; citizens in presidential systems tend to answer the political knowledge questions correctly 0,23 scale units more than citizens in parliamentary systems. The same effect occurs when applying the weighted knowledge index as a dependent variable.

The effect is, however, not present in the analysis involving the full pool of CSES-countries.¹⁰⁶ One interpretation of why these results differ substantially is that the design of the knowledge questions contributes to producing spurious effects. It might be that the presidential states in some years included 'easier' knowledge questions than the parliamentary systems did, and when taking all of the CSES-rounds into consideration the effect of the knowledge question formulation disappears. There is furthermore no literature stating that presidential states have more knowledgeable citizens than parliamentary states. This will be further investigated in the next paragraph.

¹⁰⁵ 'Presidential' meaning hybrid systems and systems where the president has a strong influence over politics and policy-making. 'Parliamentary' involves countries without a president and countries with presidents enjoying only a symbolic status.

¹⁰⁶ See appendix for results from the three-level model.

Table 4.5. Multilevel analysis. The effect of level1 and level2-variables on political knowledge

	0	2a	2b	2c
Constant	1,71 ***	1,86 ***	1,81 ***	1,81 ***
Level 2-variables				
Parliamentary system		-0,24 *	-0,17	-0,17
Inequality (Gini)		-2,28		
HDI (high HDI = high value)			-2,97	-3,07
Level 1-variables				
Education			0,30 ***	0,27 ***
Gender			-0,30 ***	-0,30 ***
Age			0,03 ***	0,03 ***
Age squared			-0,0002 ***	-0,0003 ***
Union			0,00	0,01
Income			0,13 ***	0,13 ***
Party identification			0,19 ***	0,19 ***
Interaction effects				
Parliamentary*Education				0,06 *** ^a
Parliamentary*Income				0,02 ^a
Parliamentary*Gender				0,03 ^a
Estimates of variance				
Residual, level 1	0,878 ***	0,878 ***	0,750 ***	0,750 ***
Constant, level 2	0,069 ***	0,050 ***	0,046 ***	0,045 ***
Pseudo R2 level 1			14,6%	14,6%
Pseudo R2 level 2		28,5%	33,3%	33,3%
N level 1		33460	23227	23227
N level 2		20	19	19

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

Dummy-coded variables (1): Parliamentary (parliamentary system), gender (woman), union membership (member), income (two highest quintiles) and party identification (do identify with a party). Education: five groups, centered. Age, age squared, HDI and Gini are centered and continuous. Missing values excluded from the analysis. OLS-regression, ML estimation.

^a The interaction effects are not included in the same model, but are run separately in order to restrict the number of level2-variables. They are included in the same column here for reasons of space. The constant and remaining coefficients in the model are from the model with the parliamentary-education interaction effect.

4.4 Full multilevel model

The full multilevel-model includes individual characteristics and interaction-effects between education, gender, income and the parliamentary variable. In model 2a, the parliamentary dummy turns out significant at $p < 0,05$ when controlling for the Gini-coefficient. This is, however, not the case in the three-level-model, and when including a control for the Human Development Index and the set of individual characteristics, the effect disappears in model 2b. Hence, both H_1 and H_2 are rejected; neither inequality nor the political system seems to explain why the levels of political knowledge vary across countries.¹⁰⁷

In contrast, the individual variables behave as theorized in the literature: a person holding a university degree is predicted to get 1,9 more knowledge questions right than an uneducated citizen.¹⁰⁸ As expected, education is thus the individual level variable with the strongest effect on political knowledge. Men display 0,30 higher scale-units of political knowledge than women (however; keep in mind the gender gap described in the literature review), and a person with a high income and a person identifying with a party have 0,13 and 0,19 scale-units higher levels of political knowledge respectively.

The last model introduces an interaction term between the parliamentary dummy and education¹⁰⁹, gender and political knowledge, and income and political knowledge. In order to test H_4 interaction terms between Gini and gender, income and education have been tested, but none of them turned out significant at $p < 0,05$. Model 2c reveals that the effect of a presidential system does not condition the effect of gender nor income, but the model suggests that there is an interaction between education and a presidential system, significant at $p < 0.05$. To illustrate the relationship, figure 4.3 displays the marginal effect of education for presidential and parliamentary systems respectively.

Only the effect of *low* values of education is significantly different in presidential and parliamentary systems (as the remaining marginal effects of education is not significantly

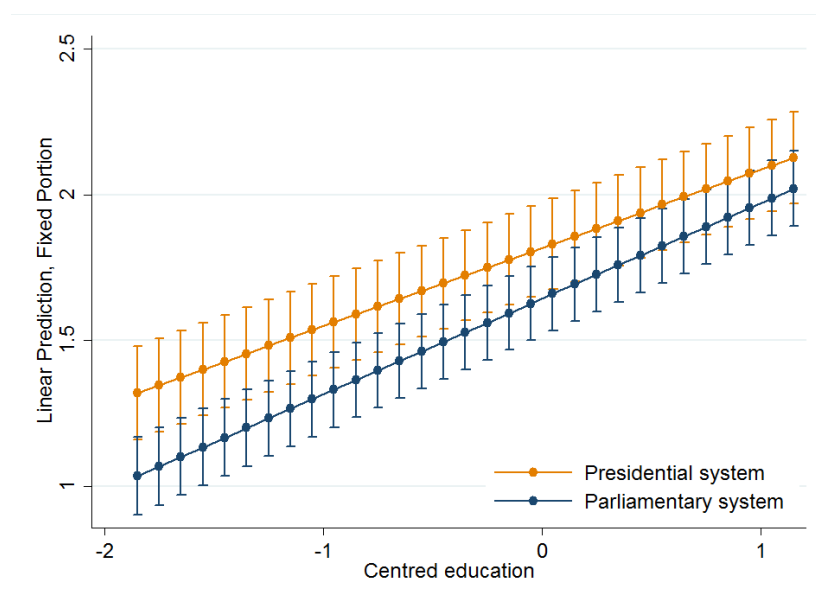
¹⁰⁷ The remaining five political system-variables were included in analyses not displayed here in table 4.5. None of these variables are significant at $p < 0.05$ when controlling for level1-variables.

¹⁰⁸ $(-1,85 * 0,30 = -1,55)$ $(1,14 * 1,14 = 0,342)$ $0,342 + 1,55 = 1,892$ scale-units

¹⁰⁹ HDI is excluded from the model to see if the interaction term reaches significance with fewer variables at level 2. It does not.

different in presidential and parliamentary systems with a 95% confidence interval).¹¹⁰ The steepness of the two lines is moreover not very different from each other, indicating that the effect is indeed quite weak. Contributing to this mixed picture is the fact that the explained variance in model 2c does not change when introducing the interaction term. Hence, the interaction term is not easily interpreted, and could indicate that the results are hampered by methodological challenges. Moreover, the same results occur when applying the weighted index.

Figure 4.3. Marginal effects of education. Presidential and parliamentary systems. 95% confidence intervals.



4.5 Summary and conclusion

This chapter has reviewed the findings regarding the second and the third research question. The following can be concluded regarding the second research question, which is to what degree and in what way a political system affects citizens' political knowledge:

- H_1 and H_2 are rejected. None of the contextual variables exert a significant effect on individual knowledge levels; neither the party system-variables nor the inequality

¹¹⁰ The effect of low levels education is the only marginal effect significant.

levels. Hence, the relationships theorized by Grønlund and Milner (2006) are not present in my analyses when applying the knowledge index.

- H_3 cannot be confirmed. The interaction effect between education and a presidential system is significant at $p < 0.05$, however, judging from figure 4.3 the effect is only valid for the least educated respondents.
- There is no interaction effect of individual socio-economic resources and an unequal society on political knowledge. H_4 is rejected.

The lack of findings in this chapter stands in stark contrast to the results in chapter three. In the beginning of this chapter, I indicated that Grønlund and Milner's results had to be assessed by utilizing multilevel modeling. The findings in this chapter indicate that the way of specifying the models do have an importance for whether or not we find variations across countries in political knowledge.

Moreover, the absence of expected results may be due to the operationalization of political knowledge, like Elff (2009) claims. This becomes clear when reviewing the third research question:

- Political knowledge and ideological comprehension do not correlate at a higher level than 0,25 in the data material. The intra-class correlation is 7 percent compared to 11 percent in chapter three, and the standard deviations in table 4.2 suggest that the distribution of knowledge is similar across countries.
- The only level 2-effect detected in this chapter, the effect of a presidential system, does not occur when carrying out the analysis on the full pool of CSES-data.
- The individual level characteristics behave as assumed in the literature. However, none of the level2-variables of hypothesis one and two, which was proven influential in chapter three, affect political knowledge.
- Combined, the findings might indicate that while the political knowledge-questions are well suited to capture individual level variations in political knowledge, they do not perform well for cross-national comparisons. It might be due to that the difficulty of political knowledge-questions varies from country to country, and from CSES-round to CSES-round.

- The mixed results might also suggest that specifying the multilevel-model correctly gives other results.

Hence, my results in this chapter deviate from the works of – especially – Grønlund and Milner (2006). This is likely due to the fact that their lack of multilevel-modelling and use of the non-suitable knowledge index. In sum, the political knowledge-variable and the ideological comprehension-variable do not seem to predict the same systemic reasons for variations in political sophistication. This might suggest that one should be careful to assume that the two are equally good measures of the overarching concept. This will be discussed in the next chapter.

Chapter 5

Inequality and Political Sophistication

5.1 Theoretical framework

Why do we see large differences among citizens in what they know and understand about politics? Can these differences be assigned to the fact that citizens live in different countries, with diverging socio-economic and political contexts? These questions were the starting point of this thesis. Being the first to investigate the issue, Converse (1964) argued that the reason for the “high variance and low mean” in political sophistication levels was the differences in education levels and social status. He also pointed to an inherent weakness in the American political system itself; the more politically sophisticated belief systems failed to “trickle down” from the elites to the public (Converse 1964: 212; Zaller 1992: 6).

The “political system”-theory confirms the notion that the political system *itself* is the reason for diverging sophistication levels between Swedes and Americans. Granberg and Holmberg (1989) claimed that the presence of a multiparty system, as opposed to the personalized politics and focus on candidates in the U.S., resulted in greater understanding of politics in Sweden. Niemi and Westholm (1974) contended that partisanship in Sweden caused higher levels of attitudinal constraint, while Fuchs and Klingemann (1989) argued that the historical party system development is the reason why citizens in PR-countries understand the ideological left-right scale better than citizens in majoritarian, two-party systems. Gordon and Segura (1997) proceeded in a similar vein, and found that specific electoral and party-system characteristics related to PR-countries contribute to sophisticated citizens. A handful of similar studies has applied party system variables as a control (see e.g. Clark 2013; Sheppard 2015), yet the party system thesis has not been contrasted with a second hypotheses; the importance of redistributing resources.

This inequality theory, on the other hand, holds that countries with a high degree of income equality exhibit citizens more equal in terms of political knowledge. Countries can be divided

into “low civic societies” and “high civic societies”, where high civic societies are distinguished from low civic societies by policies aimed at the redistribution of material as well as “non-material” resources. The latter takes the form of a number of measures enhancing access to knowledge, so that the public in general would be equipped with means to understand politics and societal issues (Grønlund and Milner 2006).

These two competing views were the theoretical point of departure, and the analyses attempted to see the two hypotheses in relation to each other. As political knowledge and ideological comprehension are argued to be two most important parts of political sophistication (Delli Karpini 1996), and are analyzable within a comparative framework, these two aspects were applied as the two dependent variables. In addition to attempting to contribute to new theoretical and empirical insights, methodological issues have been addressed. Theoretically and methodologically adequate modeling was applied, namely multilevel modelling (which e.g. Grønlund and Milner’s research lacked). I also carried out additional tests to ensure reliability (two samples) and validity (additional codings for the two dependent variables). With this in mind, my answers to the research questions are as follows.

5.2 Summary of findings

The first research question concerned in what way and to what degree a citizen’s level of ideological comprehension depends on the political and socio-economic contextual traits of a country.

- The results in chapter three leaves little – although some – support to the theoretical notion that party-system and electoral-system variables influence ideological comprehension. When testing five different measures of the electoral and political system, only one characteristic turns out as statistically significant; the number of parties in the party system. Controlling for the inequality level, however, the effect disappears. Previous literature expects education to be of less importance in a PR-country than in a majoritarian country, but I find no such or similar interactions.
- The *inequality level*, on the other hand, contributes significantly to explaining why citizens’ ideological comprehension varies across countries. My results also show that

inequality conditions the effect of gender, education and income for understanding party-ideology. In economically unequal countries, to be a well-educated, highly salaried man is relatively more important for understanding the ideological placement of parties – in more equal countries, these individual characteristics is less of an imperative to ideological comprehension.

- Regarding “to what degree” a citizen’s level of ideological comprehension is affected by context, individual characteristics explain the great majority of variation in ideological comprehension. Nevertheless, the analyses show that the inequality-level accounts for a large part of the cross-national variance.

Political knowledge serves as the object of analysis in chapter four. The finding in this chapter points in a somewhat different direction:

- In stark contrast to chapter three, none of the contextual variables significantly affects political knowledge when controlling for individual level predictors. The cross-national variation in political knowledge is also lower for political knowledge than ideological comprehension. However, education, gender and other individual characteristics influence knowledge as theoretically expected. These facts might suggest that the political knowledge-index is suitable to measure political sophistication at the individual level, but not when comparing countries.

The findings of chapter four contributes to providing an answer to the third and last research question, which asks to what extent current indicators of political knowledge and ideological understanding can be used to assess comparative variations in political sophistication.

- The correlations between the knowledge index and the ideological comprehension-variable are weak, underlining the indication that the two operationalizations measure the concept of political sophistication at the individual level, but not at country level.
- The ideological comprehension-variable is thus suggested to be a more accurate measure of political sophistication when asking a comparative research question.

The theoretical conclusions of the thesis will be based on the findings from the first research questions, while the conclusion regarding the last two research questions will be discussed in the methodological conclusion.

5.3 Conclusions and implications

5.3.1 Inequality and electoral systems: two complimentary theories

For several decades, political scientists have spent much time on documenting electoral and party system variables' importance for individual political behavior – and the same goes for political sophistication. Somewhat surprising, then, one of the most important findings of this thesis is that the political system does not affect political sophistication as predicted by previous literature. Is the political system irrelevant for why political sophistication varies between countries? Were Granberg/Holmberg, Niemi/Westholm and Gordon/Segura wrong when concluding that “the party system matters”?

On the one hand, and if the PR-effect is interpreted as spurious, my findings suggest a “yes”. This would lead to a rejection of many of the theories accounted for, and means that in countries with PR-elections and multiparty-systems, citizens do *not* display higher sophistication levels because e.g. that the left-right axis is ‘easier’ to understand or that the multiparty-system itself contributes to an increased focus on parties and ideological stands rather than personalized issues about candidates. Rather, PR-variables could “coincidentally” covary with lower inequality-levels, and have no significant influence on citizens' political understanding and knowledge.

On the other hand, my results might imply that the party system matter *through* inequality levels. Such an interpretation would render a rethinking of the current party system-thesis. Nevertheless, it is a plausible explanation if taking into account the theory of Iversens and Soskice (2006). Consulting this literature, which has not been taken into account in the political sophistication literature, gives an indication of how inequality and the political system may interact in influencing political sophistication.

Historically, countries have tended to experience different amounts of political pressure from the different social spheres in society, resulting in the electoral formulas ensuring representation of its citizens. Today, these electoral formulas affect coalition behavior and leads to systematic differences in the composition of governments, and hence to different distributive outcomes. In PR-countries, with more than two parties, the middle class party (e.g. a labor party) tends to ally with left parties, pursuing common interests in taxing and

redistributing from the richer spheres. In majoritarian countries, however, the electoral systems serve to restrict the coalitional options and hence also the motivations for redistributing; which will tend to be lower (Iversen and Soskice 2006: 178-179). In other words; majoritarian and PR-countries differs with regards to the presence of left political parties and class coalitions, which ultimately lead to diverging redistribution policies and inequality levels.

Hence, PR-variables and socio-economic equality have a plausible theoretical link, and the next question is *how* low levels of inequality may contribute to high levels of political sophistication. Solt (2008) gives an indication as to how the mechanism of inequality works. He finds that inequality depresses political interest, discussion and turnout, due to inequality's consequences for distribution of power. If a country's income and wealth are more concentrated, power within the country will be more concentrated and richer individuals more powerful relative to poor individuals. Individuals' larger power advantage allow them to more consistently address publicly the issues that interest them; they can preclude issues of the less-powerful from being publicly debated; and eventually poorer citizens are confronted with a political system that fails to develop alternatives in many issues of importance to them. In a country with a high degree of income inequality, it could therefore be rational for less-affluent citizens to conclude that there is little point in being engaged in politics (Solt 2008: 49).¹¹¹

My analyses suggest the presence of this mechanism; as inequality increases, the importance of individual level indicators also increases. Being a well-educated man with a high income is of greater importance in the more unequal countries, where the sophistication levels among the public tends to have a low mean and a high variance. A few people know a lot, but most people are not equipped with much knowledge about the ideological positions of the parties in the political landscape. In the more equal countries, however, the distribution is more even and individual level characteristics not as vital for understanding ideology and information. It may seem like citizens in more socio-economically equal countries in general are more

¹¹¹ As engaging in politics, taking interest in and discussing political issues are variables closely connected to political sophistication (Zaller 1992), these conclusions are regarded as transmittable to the field of political sophistication.

motivated to pay attention and invest their time in understanding what politics and ideology are all about, regardless of socio-economic background.

Applying the two theoretical insights to the field of political sophistication, could contribute to bringing us closer to an explanation as to why political sophistication varies between countries. The two competing theories that made up this thesis point of departure – “the party system” vs the “inequality”-theses – might actually be complimentary. The ways in which the context influences peoples’ everyday-life, might not be linked to the set-up of electoral institutions directly. Instead, distribution of power and income could be the intervening variable between the institutions and the individual’s ideological comprehension.

All in all, the analyses and theoretical discussion suggest that the “Party system matters”-theories might be due to revisions in order to get the full picture of how and why political sophistication varies across countries. Moreover, some concluding remarks can be made with regards to the measurement of political sophistication in comparative data.

5.3.2 Measuring political sophistication comparatively

The conclusion that the party-system and inequality-variables may be complimentary in influencing political sophistication has been reached due to two particularly important methodological advances. First of all, my analyses show that the way we measure political sophistication to a large degree determines the answers to the research questions. While the ideological comprehension-analysis showed clear cross-national differences and rendered evidence for contextual explanation to these variations, the analysis applying political knowledge as a dependent variable gave no answers in a comparative perspective. Only the individual level predictors behaved as expected in previous literature. As Elff (2009) also have pointed to, I will argue that the political knowledge index does not serve us well when assessing political sophistication in a comparative perspective. The only cross-national dataset containing political knowledge-questions – CSES – have not succeeded in streamlining these questions across countries. Hence, there are few possibilities to measure political knowledge in a reliable and valid way today.

Second of all, my analyses have shown that applying the correct modeling of comparative data can contribute to reach reliable results, which then again can contribute to theoretical insights. Grønlund and Milner did not apply a multilevel-model to their data when testing the relevance of inequality on political sophistication, and as a result, they could not conclude that the theory was influential in explaining variations across countries. Applying the same data as Grønlund and Milner, the main difference between our analyses was multilevel-modeling. With a correct modeling a confirmation of their theory was brought about, which underlines the necessity of treating comparative data correctly and accounting for a hierarchical structure. The multilevel-modeling was also applied to a larger pool of data in order to attend to reliability of the findings, which rendered the same results.

5.4 Future research

The field of political sophistication has been ridden by theoretical as well as methodological debates for over 50 years. My main objective has been to make a contribution with regards to the *contextual* aspect of the concept, by suggesting some theoretical, empirical and methodological improvements to previous comparative studies. The findings of the thesis have been many, but some of them I will argue have consequences for future research on political sophistication.

Comparative political sophistication-research has some obstacles to overcome regarding measurement of the concept. First of all, I will argue that while the ideological comprehension-aspect is adequately attended to today, yet a possible weakness could be that the left-right scale only taps the economic dimension in a party system. With today's multidimensional structures to politics, it might well be that other ideological scales, such as a materialist/post-materialist scale, measure citizen's ideological 'yardstick' in a better way. Second of all, further research should strive to develop better measures of political knowledge, as political knowledge is regarded to be the single most important indicator (Keeter 2008: 1). Elff (2009) proposes that the questions are standardized in content and form, and that every respondent in every country receives the same question without response alternatives. Fortunately, CSES have (partly) integrated this advice into their design of their

fourth module, and future research will hopefully show whether these knowledge questions are better suited for comparative analysis. Third of all, and in order to get the full picture of political sophistication in the 21st century, the last aspect – attitudinal stability– should also be the object of comparative assessment. However, measuring consistency over time requires panel data, which is not available in cross-national surveys. To this date there has not been carried out any thorough, larger-N studies of whether stable attitudes vary across countries. In the future a more widespread use of web-panels could hopefully solve the costly and time-consuming problem of collecting data for the same individual at different points in time.

Lastly, and most importantly, further research on how the contextual variables influence political sophistication is warranted. Grønlund and Milner propose that redistributive policies, public welfare services and public broadcasters also characterize the more socio-economically equal countries. How these characteristics relate to inequality and to political sophistication should be further looked into in the future. In addition, the thesis has shown that socio-economic inequality has consequences for an important part of citizenship, namely for how well citizens are able to understand politics. In equal countries, people – regardless of education, gender and income – are able to understand and make sense of their political representatives' ideological stands and are better informed about political issues. In more unequal countries, not only are the knowledge and comprehension levels lower; they are also more unevenly distributed among the public. Inequality might thus have widespread consequences and affect individuals' political behavior and ways of enacting their citizenship. In a time of rising income inequality and a general increased awareness of how inequality affects both the society and individuals' lives, the consequences of inequality to political behavior is indeed warranted more studies. Hopefully, this thesis has made some new insights as a step on the way.

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Appendix

The appendix is uploaded to <http://folk.uio.no/stinhess>.