From consensus to polarisation:

What explains variation in party agreement on climate change?

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Abstract

The thesis seeks to explain variation in party agreement on climate change, i.e. why there is cross-party consensus on the issue in some countries whilst there is party polarisation over it in others. The analysis thus provides a bridge between the literatures on comparative climate policy and party politics.

The investigation employs a nested research design as a mixed methods strategy, joining the study of the wider universe of political parties and developed countries through large and medium-N analyses with intensive and qualitative case study analysis through a controlled comparison of Australia and Norway. These countries share significant similarities, yet Australia experiences party polarisation over climate change whilst there is strong cross-party consensus in Norway.

In explaining this divergence, the thesis finds that parties will polarise over climate change if there is a presence of fossil fuel interests, multiple veto points, pluralist institutions and a majoritarian electoral system in the country. However, fossil fuel interests will not have a polarising effect if combined with few veto points and corporatist institutions. Countries that have few veto points, corporatist institutions and a proportional electoral system experience strong cross-party consensus. These findings challenge the common assumption that consensus will automatically be difficult in states with fossil fuel dependency. Rather, it demonstrates that the institutional context is critical, as it moderates the effects of fossil fuel interests and shapes the behaviour of parties.

Although the thesis argues that parties' ideology and levels of public concern also affect whether or not they embrace the issue and create agreement on it, institutional factors are demonstrated to have a relatively larger impact. Thus the thesis argues that party agreement on climate change is more an outcome of party strategic behaviour within the context of domestic party competition than it is a result of ideology or societal factors.

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Declaration

I certify that the thesis I have presented for examination for the Ph.D. degree from the University of York is solely my own work, other than where I have clearly indicated that it is the work of others. All sources are acknowledged as References. The work has not previously been presented for an award at this, or any other, university.

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None of the research presented in this thesis has been published, although revisions on an article building on the material of Chapter 3 were resubmitted to the journal *Party Politics* in December 2016. Article title: 'What explains variation in parties' climate change salience?'

Chapter 1: Introduction – From consensus to polarisation: what explains variation in party agreement on climate change?

Introduction

As the former Secretary-General of the United Nations, Kofi Annan, argued: 'Climate change is not just an environmental issue. (…) It is an all-encompassing threat. It is a threat to health. It could imperil the world's food supply. It could endanger the very ground on which nearly half the world's population live. Climate change is also a threat to peace and security' (2007: 1361). Whereas social problems characterised by 'enormous interdependencies, uncertainties, circularities, and conflicting stakeholders' are termed 'wicked problems', climate change is a 'super wicked problem' (Lazarus 2009) as it is the most complicated global commons issue the world has ever faced, and arguably the most dangerous. States have dealt with the issue in very different ways, however, and vast differences remain in their levels of ambition. Similarly, whereas there is in some countries cross-party consensus to deal with the issue, in other countries parties have polarised over the issue and climate scepticism persists.

This Ph.D. thesis therefore attempts to provide a robust understanding as to what explains variation in party agreement on climate change.[1] Whereas existing research has identified the presence and growth of polarisation on climate change in countries such as Australia, Canada and the US – as well as its detrimental effects – (e.g. Murillo and Martinez-Gallardo 2007, Dunlap and McCright 2008, Fielding et al. 2012, Tranter 2011 2013, Kim et al. 2013, Mansbridge et al. 2013, McCright et al.

[1] 'Party agreement' and 'cross-party consensus' will be used interchangeably throughout the thesis, as will 'party disagreement' and 'party polarisation'.

2014a, McCright et al. 2014b, Dunlap et al. 2016, Zhou 2016) no research to date has examined the causes and drivers of such polarisation, nor has research taken a comparative approach or researched the opposite outcome, i.e. why some countries instead experience cross-party consensus (e.g. the Scandinavian countries, Germany and the Netherlands). In conducting this investigation the thesis bridges two bodies of literature, namely the comparative climate policy literature and the party politics literature. The former identifies the country characteristics that help explain variation in states' climate change ambitions, and as such might make it easier or harder for political parties to create agreement on the issue, whilst the latter explains party behaviour, thus helping us to understand why parties embrace the issue of climate change or not. By bridging these two literatures, the thesis helps to make sense of the research puzzle and fills significant gaps in our knowledge.

To start the investigation, the following chapter is divided into five sections. The first section outlines the research agenda and puzzle, briefly outlining the science and international regime on climate change, and arguing that there is a substantial gap in our understanding of the role that political parties and party agreement play in explaining variation in states' ambitions. The second section therefore outlines the research design, explaining the methodologies used and justifying the case selection and time frame of the investigation. The argument of the thesis is stated in the third section, and the originality and contribution of this argument is summarised in the fourth section. Finally, the fifth section provides an overview of the remainder of the thesis and outlines the succeeding chapters.

1.1. The research agenda and puzzle

1.1.1. The science of climate change and the international climate change regime

The greenhouse gas effect, whereby carbon dioxide (CO_2) and other gases warm the atmosphere, has been understood for over a hundred years. Increasing amounts of fossil fuels have been used since the industrial revolution, and CO_2 concentrations in the atmosphere have broken out of the natural cycle seen over the last million years as a result. There is a very high degree of confidence that human emissions have caused most of the observed warming since the mid-20th Century (IPCC 2013: 4). Global warming has serious and wide-reaching consequences. For example, the World Health Organization estimates that around 140 000 people die annually from the impacts of climate change (WHO 2010). However, as Hulme (2009: 201) points out, 'while climate change may kill millions, it will be on the death certificate of no-one.' Climate change happens over time and is difficult to attribute as the direct cause of various problems such as extreme weather events. Given the 'invisibility' and long-term nature of the problem, there is less pressure from the public on governments to formulate more ambitious climate change mitigation policies (Compston and Bailey 2012). Moreover, although every continent can expect to face dramatic problems as a result of climate change (IPCC 2013), the impacts will vary significantly depending on the region in question. Thus the externalities from polluting the atmosphere can often be transported across both space and time, disproportionately affecting people in other countries and generations. As such, climate change is often called a 'public bad'. As the atmosphere is a non-excludable and non-rivalrous resource (i.e. no person can be denied its use and no person's use diminishes that of others) there is an incentive to 'free ride' on the efforts of others,

i.e. states might rely on other countries to reduce emissions rather than implementing climate policies themselves (Nordhaus 1998).

The complexity of the problem has consequently made creating a coherent and global response difficult. The United Nations Conference on Environment and Development was held in Rio de Janeiro, Brazil, in 1992, and established the Framework Convention on Climate Change (UNFCCC). The Convention created a principle of 'common but differentiated responsibility' (Principle 7) towards climate change mitigation, i.e. for developed countries to play a leadership role due to their greater historical and per capita emissions, as well as their greater wealth and capacity to deal with the issue than developing countries. Developed countries have achieved high levels of economic and social well-being based on greenhouse gas emitting industrial activity, and it is expected that developing countries will do the same. This means that developed states must cut back their emissions in order to allow developing states to increase theirs, or transfer funds and technology which allows developing countries to develop along a greener trajectory. Extending from the UNFCCC, the Kyoto Protocol – which committed countries by setting internationally binding emissions reduction targets – was adopted on 11 December 1997, and entered into force on 16 February 2005. Although the Kyoto Protocol was an historic and commendable step towards solving the problems of global warming, it failed to include all the world's top emitters, and the emissions reduction targets adopted gave the impression of representing political compromise rather than being led by scientific advice (Harrison and Sundstrom 2010). Efforts to agree on a post-Kyoto climate treaty also encountered many problems, and the critical Conference of the Parties (COP) in Copenhagen in 2009 – which had sought to extend mitigation efforts beyond 2012 – was considered a failure (e.g. Christoff 2010, Parker et al. 2012). The Kyoto Protocol was, however, eventually succeeded by the Paris

Agreement, which was seen as a major diplomatic success. The Paris Agreement entered into force on 4 November 2016 when 55 Parties to the UNFCCC accounting for at least 55% of global emissions had ratified the agreement.

However, at present the Paris Agreement will not achieve its core aim, namely to keep global warming below 2 degrees above pre-industrial levels (and as close to 1.5 degrees as possible) and to reach zero net global emissions in the second half of this century. In fact, current pledges (or Intended Nationally Determined Contributions – INDCs) would still deliver around 3 degrees of overall warming by 2100 (Climate Action Tracker 2016a). Thus the long term success of the Paris Agreement will hinge on these pledges being reviewed and toughened by the signatory states through the five-yearly 'ratchet mechanism' it has established (UNFCCC 2016 Article 3, also see Christoff 2016a). This 'ratchet mechanism' is intended to ensure that countries increase their ambitions every five years, with the hope that such efforts will eventually reach the required overall target. As the success of the Paris Agreement therefore depends on national governments increasing their efforts every five years, domestic politics will clearly be central to the success of the international climate change regime.

1.1.2. The research puzzle

The Paris Agreement, like its predecessor, demonstrates that significant variation remains between developed states' ambitions on climate change, despite their commitment to 'common but differentiated responsibilities'. Understanding this variation in state behaviour is 'one of the great puzzles of comparative climate policy that can shed light on the possibilities and limits of political transformation towards a decarbonised world' (Eckersley 2013: 382-96). As such, a growing literature has sought to explain variation in states' ambitions on climate change (e.g. Bättig and

Bernauer 2009, Harrison and Sundstrom 2010, Tubi et al. 2012, Bernauer and Böhmelt 2013, Lachapelle and Paterson 2013, Madden 2014, Fankhauser et al. 2015).

Often missing from this comparative climate policy literature, however, is a focus on the role of political parties. Political parties are at the heart of climate change politics, as party competition heavily shapes government policy, and national governments in turn remain central to policy-making on climate change. Parties also link the issue of climate change to the public, and vice versa, and have important roles in shaping attitudes. Parties can be key obstacles to ambitious climate policy as well, as the incentives of the electoral cycle necessarily entail a focus on short-term and popular goals in order to ensure re-election. The critical role of parties is confirmed by recent studies (Knill et al. 2010, Jensen and Spoon 2011, Schulze 2014, Jahn 2016) which all point to the relevance of parties and partisan theory for environmental and climate change outcomes. However, despite the centrality of political parties, the literature exploring this piece of the comparative climate policy puzzle is more or less in its infancy (for exceptions see Carter 2006 2013, Jensen and Spoon 2011, Spoon et al. 2014). Moreover, Carter notes that: 'there is a strange imbalance in the academic study of the party politics of the environment' (2006: 747). Whereas most issues of green party politics have been examined (e.g. Bomberg 1998, Müller-Rommel and Poguntke 2002; Richardson and Rootes 2006, Spoon 2009), analysis of how the environment impacts on mainstream (i.e. established and electorally successful) parties and party competition is surprisingly scarce, particularly in countries without an electorally successful green party.

Even less literature has examined how the issue of climate change in particular has impacted on mainstream parties, with expert surveys (e.g. the Chapel Hill Expert Survey) positioning parties on the environment, but not on climate

change. Similarly, the Comparative Manifesto Project (CMP) dataset – a quantitative content analysis of party manifestos often used to position parties – includes a category on the environment only (Volkens et al. 2014). However, as will be argued in Chapters 2 and 3, climate change can be a substantively different issue from the environment, with different incentives for political parties. Understanding why political parties are more or less positive to the issue of climate change is thus an important, and currently underdeveloped, endeavour.

However, understanding why political parties are more or less positive towards the issue of climate change is not sufficient to explain the variation in countries' climate change ambitions. We also need an understanding of why we can observe smaller or larger differences in such positions between parties across countries. In other words, why is there cross-party consensus on the issue in certain countries whilst there is party polarisation in others? Given the long-term character of climate change, commensurately long-term investments and policies are needed to address the issue. If policies introduced by one government are likely to be undone by another, such long-term investments become almost impossible. Similarly, if half the legislature or population disagrees as to whether climate change measures should be taken, it will be difficult to sustain substantial climate policies over several electoral cycles. Climate change investments and policies consequently need continued – and thus bipartisan – support for their survival and success. Cross-party consensus on climate change exists in several countries, and in some instances even amount to a 'competitive consensus', whereby no party can be seen *not* to be supporting action (Carter and Jacobs 2014). In some countries, however, parties have polarised over the issue. A growing literature highlights increasing party polarisation on climate change in countries such as Australia, Canada and the US, as well as its detrimental effects (Murillo and Martinez-Gallardo 2007, Dunlap and McCright

2008, Fielding et al. 2012, Kim et al. 2013, Mansbridge et al. 2013, Tranter 2013, Dunlap et al. 2016).

However, this literature focuses on the presence or growth of polarisation on climate change, rather than its underlying causes or drivers. Given that these countries are amongst the world's largest emitters, this is a significant omission. Furthermore, the literature concentrates on single country case studies rather than taking a comparative approach. Nor does the literature seek to explain the instances of the opposite outcome, i.e. why some countries instead experience cross-party consensus on the issue. As such, this thesis has two research questions; the first subsidiary and the second overarching:

1. What makes mainstream parties embrace the issue of climate change?

2. What facilitates and hinders the creation of party agreement on climate change?

The main dependent variable of the thesis is therefore party agreement on climate change, and the thesis seeks to explore how party and country characteristics help explain the variation across countries, and their relative importance in doing so. The methodology through which this will be explored is outlined in the next section.

1.2. Research design

1.2.1. Methodology and case selection

The thesis adopts a mixed methods approach (see Bryman 2012: 637), drawing on material from the literature on comparative climate policy and on party politics. It employs a nested research design, joining large- and medium-N analyses with

intensive case study analysis (Lieberman 2005). The thesis thus combines the study of the wider universe of political parties and countries before focusing down onto an in-depth and qualitative comparison of two case studies to attain maximum analytical leverage. Such a process allows patterns and cases from the 'wider universe' to be identified for further exploration (Schneider and Rohlfing 2013), thus minimising the selection-bias of the researcher. Cases are selected based on their explanatory power as opposed to the researcher's preferences (King et al. 1994: 28). In turn, the small-N investigation allows identified relationships in the wider universe of cases to be tested and nuanced, and for unanswered questions to be addressed (Lieberman 2005: 439). As Lieberman points out, the 'promise of the nested research design is that both LNA [Large-N Analysis] and SNA [Small-N Analysis] can inform each other to the extent that the analytic payoff is greater than the sum of the parts' (2005: 436). The comparative method is employed, more specifically the Method of Difference (Mill 1843), as the investigated cases are selected based on having similar characteristics yet experience variation on the dependent variable.

The first empirical chapter of the thesis therefore surveys the wider universe of political parties through large-N regression analyses. Based on a novel measure of parties' climate change salience – i.e. how prominent they make the issue in comparison to other issues – the chapter examines the relevance of different party characteristics in explaining the variation in how far 127 parties have embraced the issue. The second empirical chapter is a medium-N analysis employing fuzzy set qualitative comparative analysis (fsQCA) to examine the wider universe of developed countries. Based on a novel conceptualisation and measure of party agreement, the chapter systematically analyses the determinants of cross-party consensus and polarisation on climate change across eighteen OECD (Organisation for Economic Co-operation and Development) countries. In combination, these

chapters provide the framework for the remainder of the investigation and case study selection.

Cases are selected based on the results of the fsQCA analysis and explored through a controlled comparison and the Method of Difference. Following Mill's (1843) canonical work on the classical methods of 'difference' and 'agreement,' the logic of the controlled comparison has been one of the defining methodologies for comparative politics (also see Lijphart 1975, Skocpol and Somers 1980). When utilising this methodology one strategically selects cases for analysis that either exhibit contrasting outcomes despite similar characteristics (the Method of Difference), or similar outcomes despite divergent characteristics (the Method of Agreement), with the aim of discovering empirical relationships between variables. The thesis will utilise the former method, i.e. 'by "controlling" for certain common features (...) the analyst can thereby exclude these factors from the analysis and focus upon those conditions that do vary systematically within the selected universe' (Norris 2005: 36). Consequently, at least one of these varying conditions must form part of the explanation for divergent outcomes and the researchers' argument.

On a broader level, all the countries examined in the thesis fall under the umbrella of 'developed democracies', meaning that they share key features such as high levels of democracy, economic prosperity and integration into world society (e.g. open and globalised economies and membership in international organisations). In other respects, however, they differ significantly (see Chapter 2 for a detailed overview). As such, Australia and Norway are selected for the case study analysis. The two countries represent the extremes on the dependent variable in the fsQCA analysis yet share a number of significant commonalities that provide a fruitful basis for comparison. Both countries are sparsely populated, developed and wealthy democracies, with similarly high standards of living and quality of democracy. Both

countries are also highly integrated into world society and the global economy, yet neither country was significantly affected by the global financial crisis (GFC). Both countries had the smallest loss of GDP post-2008 amongst all the OECD countries in the sample, and both countries have relatively low levels of unemployment. Consequently, we can rule out the financial recession as providing the explanation for polarisation on climate change in Australia. Significantly, Australia and Norway are both major fossil fuel exporters. Moreover, although the countries' domestic energy profiles differ substantially – Australia being heavily dependent on coal whilst Norway's electricity generation is largely based on hydro-electricity – they nonetheless face similarly high marginal abatement costs for emissions reductions. As Norway's domestic energy production is already essentially decarbonised, it can only reach its emissions reduction targets by reducing emissions from the petroleum, manufacturing and transport sectors, which already operate at high levels of efficiency. Thus Australia and Norway share significant commonalities that are consequently 'controlled' for when seeking to explain the variation in the dependent variable.

However, Australia and Norway also differ in several significant ways. These characteristics consequently cannot be controlled for, and are likely to form part of the argument as to why the countries differ regarding party agreement on climate change. Firstly, Norway is a unitary and unicameral country, whilst Australia is a federal country with multiple layers of government and thus multiple veto points. Secondly, Norway has a corporatist institutional governance system, whilst Australia's system of interest aggregation is highly pluralist. Thirdly, Norway has a multi-party proportional electoral system whilst Australia effectively has a majoritarian two-party system. These features that cannot be controlled for are thus brought forward into the qualitative case study analysis.

Moreover, one potentially relevant factor, namely levels of public concern for climate change in each country, was unknown. In other words, we did not know whether levels and drivers of public concern for climate change were similar in each country or whether they differ. This is consequently examined in Chapter 6. An overview of the similar and dissimilar characteristics is shown in Table 1.1.

Table 1.1. Comparability of the case selection

Country characteristics	Australia	Norway
Population density	Low	Low
GDP pc	High	High
Standard of living	High	High
Quality of democracy	High	High
International integration	High	High
Effects of GFC	Weak	Weak
Unemployment levels	Low	Low
Fossil fuel exportation	High	High
Marginal abatement costs	High	High
Public concern for climate change	?	?
Number of veto points	High	Low
Interest aggregation	Pluralism	Corporatism
Electoral system	Majoritarian	Proportional
Party agreement on climate change	Polarisation	Consensus

As Burnham et al. (2004) argue, the primary challenge with comparative designs is 'finding comparable cases: that is, examples which are similar in a large number of respects to the case which [is] constant, but dissimilar in the variables that they wish to compare.' Echoing this concern, Lijphart (1971) points out that researchers can never really be certain that two different states are the same on all issues except those under investigation. Despite this potential vulnerability, however, Australia and

Norway are still selected, and Chapters 6 and 7 present the comparative case study analyses.

1.2.2. Time frame

The thesis has a contemporary focus and is restricted to the last fifteen years, ending in 2016. As such, the time frame of the investigation is between 2001 and 2015. During this period climate change ascended the political agenda and became a significant focus of political parties, countries and the international community, as pressure mounted to create and implement effective responses in the face of a decreasing global carbon budget and the threat of dangerous climate change. At the same time our scientific understanding of the problem increased substantially, with the publication of three IPCC reports (in 2001, 2007 and 2014 respectively) and the influential Stern Review on the economics of climate change in 2006. Concurrently, and perhaps paradoxically, however, this period also saw an increase in partisan divisions over the issue. This period therefore allows us to cover five election periods in Australia and four election periods in Norway.

1.2.3. Sources

To examine the above research puzzle within the stipulated time frame, a variety of primary and secondary sources are utilised. Underpinning all of the analyses and investigations is the use of secondary sources such as published research articles and books, working papers, government policy documents and legislative texts, briefings, reports, grey literature and news coverage.

Chapter 3 uses party manifesto data from the Comparative Manifesto Project (Volkens et al. 2014), which is also used for the dependent variable in Chapter 4.

Manifestos are authoritative statements by the parties themselves, expressing the views and values of the party as a whole, and as such are central in estimating party positions. Although manifestos do not detect internal party dissent, they importantly provide objective and comparable data for analysis. Furthermore, manifestos are a key communicative tool where parties present themselves to the electorate. In addition, manifestos shape parties' actions in government, as they provide parties with a mandate once elected, and are also an important means for voters and the opposition of keeping parties to account.

The independent variables in Chapter 4 are based on various sources. The type and amount of countries' fossil fuels were drawn from the Central Intelligence Agency (CIA)'s World Factbook and British Petroleum (BP)'s Statistical Review of World Energy (2013). The measure of countries' structure and number of veto points was developed using the Political Constraint Index (POLCON) dataset (NSD 2011), which in turn builds on the work of Henisz (2002). Countries' institutional governance systems were classified based on Lijphart's (2012) seminal classification of patterns of democracy, which creates a continuous measure ranging from highly pluralist countries to highly corporatist ones. The final independent variable uses a formula of the effective number of parties (EffN), which is a measure of party fractionalisation, based on the indices of Gallagher and Mitchell (2008). The variables were all coded and then calibrated on continuous scales from 0-1 in line with the fsQCA methodology. In examining levels and drivers of public concern in the case study countries in Chapter 6, the thesis employs Wave 5 of the World Values Survey (2005-2009).

Finally, Chapter 7 is based on primary data from forty-four semi-structured elite interviews conducted in the period October 2015 – May 2016. Interviewees included politicians, civil servants, ENGO- and fossil fuel industry representatives,

and policy advisors or academics/experts (see Appendix II for a list of interviewees and their affiliations)[2]. The interview technique employed builds on work by Dexter (2012), and was based on a defined list of issues to be discussed whilst simultaneously leaving sufficient flexibility to alter the sequence of questions or to add follow-up questions. In addition, the 'snowball method' was used during the fieldwork process, i.e. locating and contacting further potential interviewees during the fieldwork process based on the initial interviews (e.g. Denzin and Lincoln 2000, Dexter 2012: 20). As a tool in qualitative analysis, interviews allow the researcher to 'deepen the inside knowledge of the community under study' (Bray 2008: 309), which can both confirm and triangulate previous findings (Hancké 2009) as well as provide new ideas and interpretations.

1.3. The argument and theoretical approach

Based on the methodologies and sources outlined above, the thesis makes the following arguments:

In response to the first research question, Chapter 3 argues that mainstream parties have largely not made climate change a salient issue, and that parties' left-right ideology is influential in explaining the extent to which they have. Right-wing ideology is found to have a significant negative effect on parties' climate change salience, and this is argued to be more important in explaining the variation in parties' climate change salience than other party characteristics such as their economic and policy preferences, their size and strategic incentives, and their incumbency constraints. The parties' left-right ideology is not found to significantly impact their levels of environmental salience, however, thus the argument is made

[2] The interviews in Norway were conducted in Norwegian and translated by myself. Any error in translation is entirely my own.

that climate change can be a substantively different issue for political parties than traditional environmental issues, and that the former is a partisan issue as opposed to a valence issue ('partisan issues' being issues where parties take different positions, whereas 'valence issues' are consensus issues). Whereas addressing traditional environmental issues often yields benefits for the current and national population, and as such can be thought of more readily as a valence issue, climate change warrants a fundamental restructuring to the economy and people's behaviour, as well as challenging politicians to think of people other than their electorates (whether this be future generations or people in other countries). These features consequently challenge certain ideological tenets of parties whilst aligning more easily with others.

The fsQCA analysis in Chapter 4 responds to the second research question and identifies country characteristics that help explain variation in party agreement on climate change. The chapter demonstrates that the presence of fossil fuel interests in a country will have a polarising effect on parties if combined with multiple veto points, pluralist institutions and a majoritarian electoral system. However, fossil fuel interests will not have a polarising effect if combined with fewer veto points and corporatist institutions. On the other hand, countries with few veto points, corporatist institutions, and a proportional electoral system experience high levels of cross-party consensus on climate change. As such, the chapter challenges the common assumption that consensus will automatically be difficult in states with fossil fuel dependency. Rather, it demonstrates that the institutional context is critical, as it moderates the effects of fossil fuel interests and shapes the political decisions of parties.

Based on the fsQCA analysis, Australia and Norway are selected as the case study countries for the latter part of the thesis and investigation, as they share significant commonalities yet differ on the dependent variable. Chapter 6 explores

whether they have similar levels of public concern for climate change, and whether this is consequently a feature that can be 'controlled' for in the argument or not. The chapter argues that they have dissimilar levels of public concern, with Australia having significantly lower levels of public climate change concern than Norway. It is argued that two relationships are particularly relevant in explaining the lower levels of concern in Australia. Firstly, people's feelings of identity, attachment and responsibility play a different role in the Australian context, pointing towards the size and federal structure of Australia impacting on people's concern for climate change. Secondly, it is argued that political partisanship plays an important role in Australia, whereas it does not in Norway. The issue is polarised along party lines in the Australian public, with Liberal voters being significantly less likely to be concerned about climate change than Labor voters. This finding also lends support to the argument in Chapter 3, namely that climate change can be a partisan as opposed to a valence issue. The findings of the quantitative analysis were therefore brought forward into the qualitative case study analysis, where the relationship between public concern and political parties – and thus party agreement – was examined. Interviews with politicians in both countries revealed that the patterns of public concern identified in the regression analyses are also observed by the politicians themselves, thus supporting the findings of the quantitative analysis and underlining how these relationships could indeed be influencing the parties' positions on the issue. Politicians in Australia are aware of the low levels of concern in the public and of the partisan and regional variation, whilst Norwegian politicians observe high levels of concern across the political spectrum and the country. In response to the first research question, then, it is argued that levels of public concern can help explain why political parties embrace the issue of climate change or not. Importantly, in responding to the second research question, it is argued that a perceived lack of

public pressure to act on climate change or a perception of a polarised public by parties in some countries, in contrast to a perceived pressure to act by all the parties in other countries, helps explain the variation in party agreement.

The intensive and comparative analysis of Australia and Norway presented in Chapter 7 both confirms and contextualises the above findings. Based on interviews with forty-four policy-makers and policy-shapers across both countries, the above arguments regarding the influence of ideology, country characteristics and societal factors such as public concern are tested, their effects nuanced, and importantly compared for their relative importance in explaining the research puzzle. Based on the findings of this chapter, the argument is developed that how parties respond to the issue of climate change is conditional upon the dynamics of domestic party competition, and that the institutional context is critical in shaping such competitiveness.

Although the thesis argues that parties' left-right ideology is relevant in explaining how far they have embraced the issue, this is less helpful in explaining the intra-party family variation. In other words, it does not explain why certain centre-right parties have in fact embraced the issue despite the ideological incentives not to, and why we can observe cross-party consensus in certain countries. By identifying the importance of the institutional context in driving party competition and consensus on the issue in Norway, and also how the institutional context constitutes the main hindrance to such party agreement in Australia, it is therefore argued that the intra-party family differences are strongly related to the endogeneity of the party system and the dynamics of domestic party competition within which these parties operate, and that institutional features are thus relatively more important than ideology in explaining the outcome. Likewise, although Chapter 7 reveals that both societal factors such as public concern and institutional factors are important – and

also interact – to explain the outcome, the chapter nonetheless reveals the strong and overriding influence of the institutional context on parties' climate change behaviour relative to public concern. Thus it is argued that variation in party agreement on climate change is more an outcome of party strategic behaviour within the context of domestic party competition than it is a result of ideology or societal factors. Significantly, this finding awards political parties and party competition a critical role in explaining countries' climate change performance and in making the international climate change regime a success.

1.4. The originality and contribution of the thesis

Whereas the existing literature has focused on identifying the presence or growth of polarisation on climate change in various countries, to the author's knowledge no research has examined the causes and drivers of such polarisation. Nor has such research taken a comparative approach or examined the instances of the opposite outcome, i.e. cross-party consensus. This thesis thus provides an original contribution to the field by representing the first systematic analysis of party agreement on climate change. By bridging the comparative climate policy literature with the party politics literature, the thesis represents a novel synthesis that helps makes sense of the research puzzle. Moreover, by combining these two bodies of literature the thesis helps fill significant gaps in each. On a broader level, by focusing on political parties and party characteristics, the thesis fills a gap in the comparative climate policy literature, which has tended to focus on national governments and country characteristics, or international negotiations. Further, by investigating how mainstream parties respond to the issue of climate change in particular, it fills a gap in the party politics literature, which has mostly concerned itself with the environment or green parties alone.

Chapter 3 examines the relevance of different party characteristics in explaining variation in parties' climate change salience. These features have previously been identified in the party competition literature as affecting parties' propensity to embrace climate change in individual country case studies (e.g. Carter 2006), but have never before been tested comparatively or quantitatively. Although Båtstrand (2015) has taken a comparative approach in examining the climate platforms of nine conservative parties, this is a small-N analysis, and of a single party family. By taking a large-N approach covering multiple party families, however, this thesis helps to unearth general party tendencies cross-nationally, and thus to arrive at conclusions about the effects of party characteristics more confidently. Furthermore, Chapter 3 makes a significant empirical contribution to the field by creating a novel measure of parties' climate change salience based on the CMP data.

Chapter 4 also makes a significant empirical contribution to the field, by developing a novel measure of party agreement on climate change. Furthermore, it is the first analysis to systematically examine the institutional determinants of party polarisation and consensus on climate change. As such, its argument is wholly novel and original. Importantly, the argument developed in Chapter 4 is strengthened by the findings of the small-N analysis in Chapter 7, which both supports the results of the fsQCA analysis as well as identifying in more – and novel – detail how the various institutional features interlink and moderate each others' effects on the outcome. By using the burgeoning fsQCA methodology to explain variation in party agreement on climate change the thesis also represents an innovative contribution to the literature on set theoretic methods, as fsQCA has never before been used to analyse party polarisation or consensus.

Given that the countries experiencing party polarisation and cross-party consensus align into the 'climate laggards' and 'climate leaders' of the sample respectively, we can surmise that the explanation for variation in party agreement might also form a constitutive part of the explanation for variation in states' ambitions on climate change. The findings of the thesis thus also feed into the growing comparative climate policy literature and underline the relevance of political parties, partisan theory – and now party agreement – for climate change outcomes (Knill et al. 2010, Jensen and Spoon 2011, Schulze 2014, Jahn 2016). If party agreement is important in explaining countries' climate change outcomes, the thesis then also demonstrates the relevance of these institutional features – and importantly their interaction – in explaining variation in states' climate policy ambitions (see Bättig and Bernauer 2009, Harrison and Sundstrom 2010, Tubi et al. 2012, Bernauer and Böhmelt 2013, Lachapelle and Paterson 2013, Madden 2014, Fankhauser et al. 2015). Lastly, parts of the comparative climate policy literature include and build upon literature that refers to environmental policy more generally rather than specifically to climate change (see Chapter 2). As such, the thesis provides an important contribution to the burgeoning literature in the climate policy field by focusing on the issue of climate change specifically, and making a distinction that emphasises the differences between the two issues and policy areas.

The thesis also makes a contribution by feeding into the wider literature on the adaptability of parties to new issues (see Dalton et al. 1984, Knutsen 1987, Kitschelt 1989, Dalton 2009, Båtstrand 2014). By examining how mainstream parties respond to climate change, the thesis provides an opportunity 'to track how party systems change in response to a new programmatic challenge' (Dalton 2009: 171). By finding that mainstream parties have largely failed to make climate change a salient issue, the thesis demonstrates that the question of how well parties respond to

new programmatic challenges remains very much unanswered. Similarly, the thesis provides contributions to the growing academic debate on the nature of the climate change issue, here arguing that it is a partisan issue as opposed to a valence issue (see Pardos-Prado 2012, Gemenis et al. 2012, Carter and Clements 2015).

Finally, the overall argument of the thesis – i.e. that party agreement on climate change is more an outcome of domestic institutions and party competition than it is a result of ideology and societal factors – mirrors that of previous work which points to the relevance of the national context and party strategies for radical right party positions on European integration (e.g. Szczerbiak and Taggart 2008, Vasilopoulou 2010). The novelty of the thesis' argument thus lies in the identification of such a relationship between mainstream parties and the issue climate change. The thesis thus also helps to shed light on a wider debate on right-wing ideology and extreme positions in the party competition literature.

1.5. Outline of the thesis

The thesis consists of eight chapters. Following this opening chapter, Chapter 2 provides a critical overview of the existing literature that helps to inform the thesis' investigation, and importantly situates the thesis within this literature, identifying the gaps that it helps to fill. The chapter consists of three main sections: the first outlines the existing literature on party polarisation on climate change and introduces the dependent variable, then the second and third sections outline the relevant comparative climate policy literature and the party politics literature respectively.

The third chapter presents the large-N analysis and the 'wider universe' of political parties, and explains variation in parties' climate change salience examining the effect of party characteristics. Chapter 3 outlines the theories and hypotheses to be tested from the party politics literature, then describes the data and methodology –

in particular the novel measure of climate change salience based on CMP data – before presenting and discussing the results. A key finding of the chapter is that mainstream parties have not made climate change a salient issue, and that left-right ideology is influential in explaining the inter-party differences. This result underlines the importance of ideology over parties' economic and policy preferences, their size and strategic incentives, and their incumbency constraints. The chapter therefore points towards the issue of climate change being a partisan issue as opposed to a valence issue. Moreover, in explaining variation in parties' environmental salience more generally, ideology is found to have no effect, thus underlining how the two issues should be treated differently, and lending further support to the argument that climate change is a partisan issue. The last section of the chapter discusses the limitations of the analysis and avenues for future investigation.

The fourth chapter presents the medium-N analysis based on the fsQCA methodology, which examines the impact of various institutional features on party agreement on climate change across eighteen OECD countries. The first section surveys the theoretical underpinning for the investigation, and in particular the ways in which the comparative climate policy literature and party politics literature interact to help explain the variation in the dependent variable. The following sections explain the intricacies of the fsQCA methodology, outline the ways in which the variables have been conceptualised and operationalised and then present and discuss the findings. It will be argued that the simultaneous presence of fossil fuel interests, multiple veto points, pluralist institutions and a majoritarian electoral system in a country is sufficient to explain party polarisation on climate change, whilst having few veto points, corporatist institutions and a proportional electoral system moderates the negative effects of such fossil fuel interests on party agreement, and makes it possible to create consensus. Countries with few veto

points, corporatist institutions, and a proportional electoral system experience high levels of cross-party consensus on climate change. The chapter therefore argues that fossil fuel dependency does not necessarily result in party polarisation on climate change, rather it demonstrates that the institutional context moderates the effects of fossil fuel interests and shapes the political decisions of parties. The final section discusses the caveats of the analysis and methodology, as well as avenues for their remedy.

Based on the results of the fsQCA analysis, Chapter 5 presents the method and rationale for the case study selection for the intensive and small-N analysis, and outlines the argument for selecting Australia and Norway. It then provides an overview of the case study countries' political systems, energy portfolios and climate change policies. Finally, the key similarities and differences between the two countries are summarised – i.e. the country characteristics that are controlled for in the investigation and those that are not – thus justifying the controlled comparison and outlining the focus of the investigations in the succeeding chapters.

The point of Chapter 6 is to examine whether we can also control for levels of public climate change concern in the thesis' argument. The first part reviews the environmental sociology literature, which seeks to explain variation in environmental and climate change concern between countries and citizens, and thus provides the theoretical underpinning for the investigation. Levels of climate change concern in Australia and Norway are then examined and compared in the second section and found to differ significantly, with levels of concern being significantly lower in Australia than in Norway. In order to explain this variation, the third section explores the drivers of public concern in each country through regression analyses. The drivers of concern in each country differ in two important respects, namely that the variation in concern in Australia is explained by partisanship, and by people's

feelings of identity, attachment and responsibility. The results of these analyses are then brought forward into the qualitative case study analysis as a potential explanatory factor for variation in party agreement. The final section of the paper therefore presents primary material from interviews with politicians in Australia and Norway, examining the ways in which public concern impacts them. The interviews support the pattern identified in the quantitative analysis, and reveal that these patterns are at least observed by the parties themselves, if not acted on, thus potentially helping to explain the variation in party agreement.

Chapter 7 constitutes the final substantive chapter of the thesis. As part of the nested analysis, it presents the findings of the intensive small-N analysis, thus allowing us to establish both the external and internal validity of the argument. The in-depth and qualitative comparison is necessary both to test and nuance the findings of the previous chapters, and to examine the relative importance of their findings in relation to each other. By reviewing material from forty-four interviews conducted with policy-makers and policy-shapers in Australia and Norway during 2015-2016, the chapter compares how ideological, societal and institutional features interact to facilitate or hinder party agreement on climate change. The first section examines how the presence or absence of veto points in Australia and Norway moderates the effect of fossil fuel interests and provides different incentives for the political parties. The second section compares how the different institutional governance systems in Australia and Norway influence party agreement, before the third section examines the impact of the countries' different electoral systems. The fourth section discusses the findings before the fifth and final section concludes. The qualitative comparison is shown to support the findings of the fsQCA analysis, and the interviews shed light on the mechanisms through which the various institutional features interact and moderate each other's effects to influence party agreement on climate change.

Moreover, the interviews reveal that both societal and institutional features interact to influence the outcome, although institutional features are shown to have a relatively larger impact on parties' climate change positions, emphasising the importance of country characteristics and the organisational structure of parties in explaining variation on party agreement across countries. The significance of these institutional and organisational structures also sheds light on the findings of Chapter 3, and indicates that they are also relatively more important than ideology in explaining the variation. As such, the main argument of the thesis is constructed, i.e. that variation in party agreement on climate change is more an outcome of party strategic behaviour within the context of domestic party competition than it is a result of ideology or societal factors.

Chapter 8, the conclusion, reviews the main findings of the thesis and places them in the larger context of the comparative climate policy and the party politics literature. The first section summarises the empirical findings of the thesis and the argument. The second section then discusses the wider relevance and generalisability of the thesis' findings, before the limitations of the research are discussed in the third section. The fourth section outlines avenues for future research and the fifth section concludes.

Chapter 2: Theorising party agreement on climate change

Introduction

Having outlined how climate change is a significant and acute global problem in the previous chapter, and having presented the research puzzle and design, this chapter provides a critical overview of the existing literature that helps to inform the thesis and, importantly, situates it within this literature, identifying the gaps that it helps to fill.

The chapter is made up of three main sections. The first section outlines the existing literature on party polarisation on climate change and introduces the dependent variable. The second and third section then outlines the comparative climate policy literature and the party politics literature respectively, which in combination help to answer the research puzzle. Moreover, the thesis makes an original contribution to both literatures. However, it is important to note that as the thesis engages with two large bodies of scholarship this chapter can only provide a broad overview of the key features of the literature as it relates to the puzzle addressed in the thesis. More detailed literature reviews will therefore be provided in the succeeding chapters, identifying precisely how the broader literatures are hypothesised to interact and complement each other to inform the relevant investigations.

Overall, the chapter argues that we lack an understanding of the causes and drivers of party polarisation on climate change. To arrive at such an understanding, both the comparative climate policy literature and the party politics literature are needed. The comparative climate policy literature identifies institutional features that will make it easier or harder for parties to create consensus. However, this literature

lacks a framework for understanding how political parties are influenced by such features, and how and why parties in turn influence country outcomes and ambitions on climate change. Further underlining how the two literatures complement each other, the party politics literature lacks a framework for understanding how the issue of climate change impacts party positions and party competition. However, the party politics literature does point towards parties embracing such issues and creating consensus on them if the institutional and societal factors within the country facilitate and incentivise party competition on the issue – thus underlining the relevance of combining this literature with the comparative climate policy literature. As such, the comparative climate policy literature and the party politics literature complement each other to answer the thesis research puzzle.

2.1. Existing literature on polarisation over climate change and the dependent variable

This section of the chapter is divided into two parts, with the first section outlining the existing literature on polarisation over climate change, and the second section outlining the dependent variable of the thesis. The first section shows how the literature examining polarisation on climate change has increased substantially over the last decade, yet remains focused on single country case studies, and on identifying the existence and growth of polarisation as opposed to its underlying causes or drivers. These limitations and omissions are perhaps the result of a lack of cross-national and comparable data on political parties' relationship to climate change. As such, the second part of this section outlines the case for the dependent variable analysed in the thesis, which is a measure of parties' climate change salience using Comparative Manifesto Project data.

2.1.1. Existing literature on polarisation over climate change

Despite the growing scientific consensus on climate change over the last five decades, a burgeoning literature highlights increasing partisan divides on the issue, as well as its detrimental effects on policy and communication (Murillo and Martinez-Gallardo 2007, Dunlap and McCright 2008, Fielding et al. 2012, Tranter 2011 2013, Kim et al. 2013, Mansbridge et al. 2013, McCright et al. 2014a, McCright et al. 2014b, Dunlap et al. 2016, Zhou 2016). Tranter, for example, argues that party polarisation on climate change constitutes 'one of the strongest impediments to progressive climate change policy' in Australia (2013: 411), and Dunlap and McCright argue that in the US case 'the existing divide on global warming between political elites poses a serious impediment to creating and implementing an effective federal climate policy with any potential of significantly reducing US greenhouse gas emissions' (2008: 179). Party polarisation on climate change is thus a significant barrier to action in these countries. Moreover, as Dunlap and McCright argue: 'Nowhere is the partisan gap on environmental issues more apparent than on climate change' (2008: 28). It is therefore worthwhile to examine why the issue of climate change in particular is so politically divisive.

Several influential studies have identified growing climate scepticism and polarisation amongst political parties and the public, particularly in the US (Dunlap and McCright 2008, Guber 2012, Fisher et al. 2013, McCright et al. 2014a, McCright et al. 2014b, Dunlap et al. 2016) and Australia (Talberg and Howes 2010, Fielding et al. 2012, Tranter 2011 2013). Other studies have found growing levels of scepticism and polarisation in the media, particularly in the US and the UK (e.g. Boykoff and Boykoff 2007, Boykoff 2007), whilst another body of literature has identified the negative role played by influential conservative think tanks (e.g. McCright and Dunlap 2003, Boykoff and Olson 2013). However, the common denominator of this

literature is that it identifies the presence or growth of polarisation on climate change, yet not its underlying drivers or causes. Moreover, the literature concentrates on single country case studies and fails to take a comparative approach. Nor does this literature seek to explain the non-occurrence of the outcome, i.e. why some countries do not experience such sharp partisan divides on climate change and instead experience strong cross-party consensus on the issue. This latter omission is perhaps particularly serious, as other areas of scholarship, for example in the area of welfare policy, have demonstrated the importance of party competition and consensus for the rate of policy retrenchment (e.g. Green-Pedersen 2001).

However, these limitations and omissions are perhaps the result of a lack of cross-country and comparable data. Multiple definitions and measurements have been used in the literature to examine polarisation over climate change. DiMaggio et al. (1996), for example, outline four conceptualisations of polarisation: statistical variance, bimodality, ideological coherence, and intergroup differentiation. Polarisation as statistical variance captures the situation in which large portions of the population are either strongly for or against an issue, thus making variance greater. Similarly, polarisation as bimodality describes the situation in which the response distribution has two modes. Polarisation as ideological coherence relates to the degree to which an individual's opinion on an issue is predictable based on that individual's opinion on other issues, or on voting behaviour. The fourth definition – intergroup differentiation – is similar, though it describes the situation in which an individual's opinion on an issue is predictable based on its membership of a social group (such as age, gender or occupation) rather than ideology. The four definitions all relate to public attitudes, however. In contrast, the party politics literature defines polarisation as the degree of ideological differentiation among political parties in a system (Dalton 2008), or rather the centripetal and centrifugal nature of the party

system – i.e. whether parties converge toward the middle of the political spectrum or whether they are more widely dispersed (Sartori 1976).

To capture and measure polarisation on climate change, studies have therefore conducted mass opinion polls (e.g. Guber 2012, McCright et al. 2014a, McCright et al. 2014b, Dunlap et al. 2016), surveyed politicians (e.g. Fielding et al. 2012), scrutinised legislation or the statements made in congressional hearings (e.g. Fisher et al. 2013), analysed differences in levels of climate scepticism in newspaper and television coverage (e.g. Boykoff and Boykoff 2007), assessed the extent to which news coverage identifies polarisation itself (Azzimonti 2013 – though this study examines polarisation on economic policy), or examined differences in party positions and salience on the environment (e.g. Carter 2013).

However, the use of such data sources sets huge limitations on the scope of the study – making cross-national comparisons more difficult – and importantly such data is hard to compare across countries. Moreover, the existing sources of cross-national data – public opinion surveys (e.g. European Social Survey), expert surveys on political parties (e.g. the Chapel Hill Expert Survey) and the Comparative Manifesto Project dataset (a quantitative content analysis of party manifestos often used to position parties) – focus on the environment only, as opposed to climate change specifically.

The lack of data on parties' positions on climate change is perhaps due to the assumption that climate change is a valence issue similar to the environment, or perhaps due to it being a 'new politics' issue that does not easily map onto the traditional left/right divide (Dalton 2009). However, climate change can be a substantively different issue from the environment, with different incentives for political parties. The de-carbonisation of the global economy entails a more fundamental restructuring of markets and more severe regulation of behaviour than

addressing any other environmental problem. To successfully deal with the problem of climate change, countries will have to change the ways they produce and source energy, and potentially change their economic profiles – transitioning from fossil fuels providing the basis for jobs and revenue to other options. As such, the employment and financial security of citizens can also be threatened as a consequence of dealing with climate change. Citizens will also have to change several entrenched habits, such as how they travel and how often, the food they eat, how much they consume, how they dispose of waste and recycle, and how energy efficient their homes are. Climate change consequently affects more aspects of our day-to-day lives and is more intrusive and visible than dealing with other environmental issues. Moreover, whereas the benefits of addressing more traditional environmental issues often accrue to the present or national electorate (such as improved air or water quality), addressing climate change often demands an element of altruism. Politicians have to make cuts in national emissions or invest funds to develop cleaner technologies in order for people in developing countries or future generations to avoid the consequences of global warming and to raise their standards of living. Therefore it is the combination of the fundamental restructuring of the economy and human behaviour together with the altruistic imperative that make climate change distinct from other environmental issues. Many environmental issues warrant a restructuring of the economy or the substitution of popular products (such as ozone depletion and deforestation), and many environmental issues have transboundary and even long- term consequences (such as overfishing and toxic/hazardous waste). However, only climate change combines the two elements, and to such a strong degree. The duality and severity of the challenge helps explain why the negotiations during the Conference of the Parties (COP) under the UNFCCC have been so challenging. Furthermore, climate change and the environment can

even come into conflict with each other in certain circumstances, for example when the development of renewable energy to mitigate climate change (for example hydro-electricity or wind-turbines) negatively affects habitats and biodiversity. The next section therefore outlines the dependent variable that will be used in this thesis, which allows us to examine party polarisation on climate change, as opposed to the environment, and across countries.

2.1.2. The dependent variable

As outlined above, we need cross-national and comparable data specifically on parties' climate change positions in order to accurately answer our research puzzle. Due to the absence of such data, the thesis therefore uses a measure of parties' climate change salience, i.e. how prominent parties make the issue in comparison to others. For these purposes, the Comparative Manifesto Project (CMP) data (Volkens et al. 2014) is used. The CMP analyses parties' election manifestos in order to uncover and study parties' policy preferences, and use content analysis and measures of salience to position parties on a range of issues and along the traditional left-right political dimension. However, as was pointed out above, the CMP dataset includes a code for the environment only[3], and the climate change content of parties' manifestos is subsumed within this larger code. If coded manually, however, this source allows us to uncover information specifically on climate change. The coding procedure and operationalisation is outlined in more detail for the relevant investigations in both Chapter 3 and Chapter 4.

[3] (*per501) Environmental Protection: Positive* 'All general policies in favour of protecting the environment, fighting climate change, and other "green" policies' (Volkens et al. 2014: 14).

Variation in party agreement on climate change is therefore conceptualised as the inter-party difference in issue prioritisation (climate salience). The intuition is that if a party cares about climate change and thinks it is an important problem, it will presumably make it a salient issue in its manifesto. If a party is not concerned with climate change, it will presumably not make it a salient issue in its manifesto. Thus in countries where parties have similarly high levels of salience, we can assume there is cross-party consensus on the issue, whereas in countries where there is a large difference in levels of salience between parties, we can assume they are more polarised over the issue.

Party manifestos are a good way of gauging how important the issue of climate change is for a party. Politicians might make grand statements about the importance of addressing climate change, but seeing how much of their manifesto is devoted to the issue in comparison to other issues is revealing. Also, manifestos are the result of 'complex debates and negotiations over the normative essence of a party, its strategies at any point in time and its definitions of friends and foes' (Fella and Ruzza 2006: 183) and 'provide objective data for analysis (…) on the basis of its own authoritative policy pronouncement' (Budge 2002). As such, it is a good – and importantly for our purposes, comparable – measure of salience.

An additional benefit of using the CMP data is that it is not simply measuring the frequency of (quasi)sentences that are *about* climate change (whether positive or negative), but statements that are purely *positive* towards climate change action, thus demonstrating concern and intent. The CMP assumes that the environment and climate change are valence issues, thus there is no corresponding measure of negative statements (which would have allowed for a more 'positional' judgement). However, though such negative statements will perhaps become more prevalent in the future as climate sceptic politicians and parties increase in number and

prominence, parties are at present usually not *explicitly* against climate change (even though they might in reality be). As such, the lack of positive statements might be a more accurate way to gauge a party's feelings on the issue, i.e. demonstrating a lack of concern or ambition. Thus the dependent variable is not measuring party disagreement on which approaches towards climate change are preferable (for example policy choice), but the degree to which parties see climate change as a salient problem in comparison to other issues (such as the economy, education and health). In some countries there is disagreement over whether climate change is actually happening, whether it is human-induced, and whether it is an important problem. The latter type of polarisation is therefore dramatically different from the former, and far more serious, as it denies climate change status as a policy problem that needs addressing. Thus the amount of attention parties pay to climate change in their manifestos – how salient or prominent they make it in comparison to other issues – tells us a lot about how far they have embraced it.

Thus having outlined the gap in the literature on party polarisation on climate change and the dependent variable of the thesis, the following two sections of the chapter examine the literature on the independent variables and the literature that helps answer the research puzzle.

2.2. The comparative climate policy literature

A growing literature has sought to explain variation in countries' climate change ambitions, either by examining the links between various country characteristics and climate policy outputs (e.g. increased climate legislation), policy outcomes (e.g. reduced emissions) or the ratification of international agreements (e.g. the Kyoto Protocol or the Paris Agreement). Though this literature is primarily focused on explaining variation in countries' climate change ambitions as opposed to party

agreement on the issue, it nonetheless informs the investigation and provides importance guidance to it, as the same features that prevent states from becoming ambitious on climate change are also likely to prevent the issue from becoming an issue of party agreement. Parts of the comparative climate policy literature include and build upon literature that refers to environmental policy more generally rather than specifically to climate change. However, although this thesis argues that the environment and climate change can be substantively different issues for political parties, they nonetheless share important features that inform the investigation. The following section of the chapter thus reviews the key academic debates in this young and fairly small literature, and outlines which country characteristics are controlled for in the thesis' investigation and which are not, thus providing the basis for the fsQCA and comparative case study analyses in the succeeding chapters, and the thesis' argument. Significantly, this section also highlights how the role of political parties and partisan theory is largely missing from this literature, thus underlining the contribution made by the thesis.

2.2.1. Developed democracies

The comparative climate policy literature identifies several features that fall under the umbrella of 'developed democracies' as being relevant in explaining variation in states' climate change ambitions. In examining states' ratification behaviour of multilateral environmental agreements and the joining of intergovernmental environmental organisations, Neumayer (2002a) finds that democracies exhibit stronger commitments than non-democracies, and that they perform better with respect to reporting requirements. Similarly, Congleton (1992) and Fredriksson and Gaston (2000) examine the Montreal Protocol and the Framework Convention on Climate Change, respectively, and find that democracies are more likely to ratify

these agreements. Fredriksson and Ujhelyi (2006) also observe that democracy has a positive effect on the ratification of international environmental agreements, and Lachapelle and Paterson (2013) find that democracies have significantly lower emissions growth relative to non-democracies. The arguments as to why democracies perform better than their non-democratic counterparts are well summarised by Neumayer:

> In democracies citizens are better informed about environmental problems (freedom of press) and can better express their environmental concerns and demands (freedom of speech), which will facilitate an organisation of interests (freedom of association), which will in turn put pressure on policy entrepreneurs operating in a competitive political system to respond positively to these demands (freedom of vote) (2002a: 140).

A higher degree of these civil liberties means that citizens can impose higher audience costs on policy-makers who renege on promises (Slantchev 2006), thus 'public demand by the median voter and/or politically influential interest groups is likely to be stronger in democracies than in non-democracies' (Bernauer et al. 2010).

Seeking to further nuance the effects that democracy has on the climate change commitments of states, Baettig and Bernauer (2009) differentiate between 'demand side' democracy and 'supply side' democracy. 'Demand side' democracy pertains to civil liberties, such as those mentioned above, but also the rule of law and human rights (e.g. the existence of an independent judiciary and freedom from extreme government interference or corruption) as well as personal autonomy and economic rights (e.g. secured property rights, social freedoms and equality of opportunity). 'Supply side' democracy captures the notion of political rights, or rather the extent of democratic participation in government (such as the presence of

competitive political participation, guarantees of openness, the competitiveness of executive recruitment, and the existence of institutionalised constraints on the exercise of executive power). Using this differentiation, Bernauer et al. (2010) observe that civil liberties ('demand side democracy') increase the probability of a state joining a global environmental treaty, whereas more political rights ('supply side democracy') decreases a country's propensity to ratify. However, when combining the two variables the positive effects still prevail. Thus, in sum, democracies tend to be more willing to join international environmental treaties, and the effect appears to be mostly due to civil liberties allowing citizens to put pressure on their governments.

The positive effects of democracy are later qualified by Bernauer et al. (2013), who note that there is in fact a 'democracy-civil society paradox' whereby the influence of ENGOs on governmental behaviour actually diminishes with increasing levels of democracy. This is because 'more democracy' entails 'more ENGOs', which in turn entails increased competition amongst such ENGOs for access to government, thus ironically weakening their position relative to other interests. Several strands of literature also question the positive effects of democracy (e.g. Dobson 2007), as democracies may be too short-term to formulate long-term policy solutions, and the majority of democracies are also developed, thus entailing competing incentives to emissions reductions, which can be hard to overcome through democracy alone. On balance, however, democracy seems to have a largely positive effect on states' climate change ambitions. Moreover, we should note that the effects of economic development on emissions reductions are ambiguous according to the literature.

A large body of theoretical and empirical literature focuses on the economic determinants of environmental quality. This research has led to the identification of

an important empirical pattern – the Environmental Kuznets Curve. This inverted U-curve stipulates that emissions and pollution will initially increase as an effect of economic development, but that it will subsequently decrease due to the creation and increasing affordability of cleaner technologies (e.g. Selden and Song 1994, Grossman and Krueger 1995). Several studies lend support to this hypothesis. Liefferink et al. (2009) found that a high level of economic development was significant in influencing environmental policy, and Neumayer (2002b) argues that richer states were more likely to have signed the Kyoto Protocol. Neumayer (2002a: 150) also argues that powerful states are more likely to participate in multilateral environmental agreements as they wish to demonstrate their importance in world politics. Important countries want to be seen as good citizens and leaders in world environmental affairs. Related to this, Knill and Tosun (2009) note that as states' trading agreements become more integrated, a greater number of environmental policies will be required to facilitate such trade, for example through creating a 'level playing field' and removing comparative advantages. Supporting this, Neumayer (2002b) postulates that trade-openness promotes multilateral environmental co-operation, and finds some (albeit weak) evidence for this.

Through his 'post-materialist' hypothesis, Inglehart (1990) attempted to explain why economically developed and affluent states are more likely to be environmentally friendly. Identifying a significant value-shift across developed democracies following the Second World War, Inglehart argued that the emergence and growth of the modern welfare state has produced a shift in people's basic values from materialist value-orientations towards post-materialist ones – a key element of which is environmental concern. Once people have reached a certain level of subsistence or welfare, materialist values related to survival become less important, he contends, thus other values such as democracy, freedom of speech and quality of

environment become more important for citizens. This element of his theory is labelled the 'scarcity hypothesis'. A second element of his theory is the 'socialisation hypothesis', which argues that post-materialist values are reinforced and perpetuated through cohorts experiencing or growing up in developed and affluent countries without the materialist or survivalist experiences of previous generations. This would help explain why developed countries have taken more actions to protect their environment than developing countries. Presumably, publics of wealthy nations and wealthy citizens are more willing to make financial sacrifices to protect the environment. These relationships are also supported by subsequent studies (e.g. Kemmelmeier et al. 2002, Franzen 2003).

However, recent literature has begun to question the accuracy of the Environmental Kuznets Curve. Stern notes that numerous developing countries are actually outperforming wealthier countries in terms of reducing emissions and pollution, and that the Environmental Kuznets Curve results have 'very flimsy' statistical foundations (2004: 1419). For example, the eventual downward curve in pollution may be the result of polluting industries being exported to developing states as opposed to the result of technological improvements. Or, as Ekins points out, environmental improvements in line with economic growth may be the result of other factors entirely (2000: 506-507). Furthermore, an emphasis on economic growth often results in greater – albeit more efficient – resource use, with potentially significant damage to the environment and the climate. Another criticism is that the cross-sectional evidence for the Environmental Kuznets Curve is nothing more than a snapshot of a more dynamic process. Dasgupta et al. (2002) argue that over time the curve might rise to a horizontal line at maximum existing pollution levels as globalization promotes a 'race to the bottom' in environmental standards. Even if certain pollutants are reduced as income increases, industrial society continuously

creates new unregulated and potentially toxic pollutants, thus the overall environmental risks from these new pollutants may continue to grow even if some sources of pollution are reduced. Interestingly, in contrast to Neumayer's (2002a: 150) argument, Bernauer et al. (2010) find that state power (measured in terms of GDP) and integration into the world economy actually has a negative effect on environmental treaty ratification. Thus rather than trying to become environmental role models, powerful countries appear to be able to get away with less co-operative behaviour and at lower costs. Similarly, Madden (2014) argues that GDP per capita has a modestly negative relationship with major climate policy adoption, but underlines that further research into the role of economic development as an explanatory variable is needed.

These pessimistic views about the effects of economic development are perhaps based on observations of the power and incentives of businesses and vested interests in a democracy. Businesses and vested interests look to be adversely affected by climate change policies such as carbon taxes or expensive emissions regulations, and as such are likely to contest such policies. As Daugbjerg and Svendsen point out: 'since people are more sensitive to losses than gains, losers are more likely to mobilise politically than winners' (2001: 134). A major political advantage for business is its ability to organise effectively for the collective achievement of its political goals (Bernhagen 2008). A relatively small number of group members combined with a concentration of benefits from collective action give business much stronger incentives to organise for political action compared to larger and more diffuse groups, such as consumers or taxpayers, over whom both costs and benefits are more widely dispersed (Olson 1965). As pointed out by Bernhagen, 'in no policy area is this more evident than in environmental regulation of industrial activity, where the group bearing the costs of regulation – business – is

relatively small and concentrated compared with the group of beneficiaries – virtually everybody' (2008: 84). Further advantages derive from the fact that business corporations and their trade associations are able to sustain a more stable presence in the political arena than other groups, such as ENGOs or the younger and less well-organised renewables industry (Salisbury 1984). The proponents of various renewable energy forms (such as wind, solar, wave and hydropower) also seek to promote their own particular technology as a solution, thus fragmenting their potential impact (Grant 2011: 204-5). Additionally, being 'relative newcomers to the policy process' they are generally smaller companies that lack the government relations of big corporations or well-developed trade associations (Dunn 2002: 30). As such, in developed democracies there will be a stronger presence of powerful business groups lobbying against climate change measures, affecting the prospects of emissions reductions.

Countering the negative effects of vested interests and trade, however, are the positive effects of international organisation (IO) membership. Given that states interact in several issue areas and cooperate in numerous organisations, all of which are interlinked, reciprocity becomes important (Roberts et al. 2004). For example, when a country fails to ratify an environmental treaty, it may then have to worry about other countries' refusal to ratify a trade agreement. Likewise, being a member of several IOs but refusing to co-operate in the realm of international environmental co-operation may entail 'audience costs' in terms of credibility and reputation losses at home and abroad (Simmons 1993, Mercer 1996). Given the 'spread of global environmental culture' (Roberts et al. 2004: 25), Keck and Sikkink emphasise the desire 'to belong to a normative community of nations' (1998: 29). These arguments are strengthened by Frank (1999), who finds that the number of a country's linkages to world society – measured by a country's membership of international non-

governmental science and/or environmental associations – is a strong predictor of ratification. Bernauer et al. (2010) also find that IO membership has a significant positive effect on environmental treaty ratification behaviour. The incentives from IO membership thus go some way in countervailing the negative effects of vested interests and trade.

To summarise, developed democracies have ambiguous and sometimes countervailing incentives to embrace climate change legislation. However, as argued in Chapter 1, the eighteen OECD countries that constitute the sample for the medium-N analysis in Chapter 4 are all developed democracies, and are therefore likely to face similar incentives and constraints. Moreover, the case studies for the small-N comparative analysis – Australia and Norway – have even stronger similarities in terms of levels of democracy, wealth, and countervailing influences in the form of fossil fuel industries. Thus none of the above characteristics can explain the variation in our dependent variable, as our case study selection allows us to control for them. As such, the theoretical and explanatory value of the differing country characteristics will be explored in the remainder of this section.

2.2.2. State structures and veto points

The countries examined in this thesis – both in the larger statistical analyses and the smaller qualitative comparison – differ in terms of their state structures and the number of veto points they have. These features have been identified in the comparative climate policy literature to have relevant, albeit ambiguous, effects on countries' climate change ambitions. As pointed out by Brown, federal systems 'grapple continuously with the kinds of issues that are the most intractable to the climate change case' (2012: 322). Carbon-intensive industries are often regionally concentrated, and overcoming such interests and consequent political divisions is a

key task of federal polities. Not only interests, but also values and beliefs concerning climate change can vary across regions, and from them policy norms and tolerances (Brown 2012: 324). Collective action problems are consequently as present in federal countries as they are internationally. Thus in many ways we can think of the collective action problems relating to climate change within federal countries as a microcosm of the global arena. However, federalism can have both positive and negative impacts on climate change policy, thus Brown emphasises that 'how climate change issues are variously framed and discussed within federal societies and how these differences in political culture are bridged merits considerable exploration' (2012: 324).

On the one hand, a body of scholarship argues that federalism is beneficial for addressing climate change, as overcoming interregional differences of interests and values is something that federal systems engage with continuously. As the domestic authority of states is often divided and overlapping, federal arrangements might actually offer a rich array of 'norms, institutions and practices' for dealing with 'a mixture of sovereignty and interdependence' (Brown 2012: 324). Certain federal theorists and advocates therefore argue that the two key tasks of climate change policy, namely climate change mitigation and adaptation to global warming, are likely to be achieved more sustainably and effectively through the power sharing arrangements of federal countries (see Walker 1969, Breton 1987, Kincaid and Kenyon 1989, Meseguer 2005, Brown 2012). Furthermore, climate change solutions are going to have to be multiple and broad-based. Even the most fully developed carbon-pricing scheme will have to be applied in conjunction with a variety of other policy instruments, such as the introduction of renewable energy, the improvement of building standards, the development of carbon storage and changes in land use methods. Therefore the experimentation and policy learning that federalism can

provide is beneficial (Brown 2012: 331). In the absence of national action, federalism may allow individual states to push on alone, and the lessons from these actions can be passed on and shared. Similarly, 'at the limit, if there is sufficient electoral pressure, competition among states or between states and a national government may emerge in a form of "race to the top"' (Harrison and Sundstrom 2010: 18).

However, the benefits of federalism for addressing climate change have also been widely questioned, and few empirical examples of federalism catalysing ambitious national targets exist. Rabe and Borick (2012), for example, question whether 'the whole is ever greater than the sum of the parts' – or rather whether the total of all state policies comes anywhere near to meeting established national targets. There is also the worrisome situation where the unilateral actions of ambitious states (e.g. California in the US) leave major emitting jurisdictions (e.g. Texas) 'off the hook' (Brown 2012: 331). Moreover, Jones outlines how state and city governments in Australia have been constrained by the lack of a unifying national framework. Federal institutional arrangements have largely determined the climate change policy response, he argues, and state and city governments are constrained in their efforts by federal institutional arrangements and require improved cooperation from other levels of government (2012: 1242).

A key reason why the theoretical benefits of federalism have remained empirically elusive is perhaps the greater presence of institutional veto points in such countries. Veto points are created to increase the responsiveness of government to the needs of different demographic groups in society and to prevent absolutist rule. Powers are therefore divided, and a veto point is consequently an individual or collective actor whose agreement is necessary for a change of the status quo (Tsebelis 1999: 593). The more veto points that exist within a political system, the

more difficult it becomes for policy to change (Immergut 1990, Tsebelis 1995, Hallerberg and Basinger 1998). With specific reference to climate policy, Lachapelle and Paterson (2013: 564) argue that with more veto points, costly environmental regulations tend to be more difficult to implement in comparison with where power is more concentrated. Similarly, in examining the legislative passage rates of climate policy in twenty-three OECD countries between 1996 and 2010, Madden (2014) finds that veto points have a significantly negative effect. In contrast, the OECD (2009) refers to the experiences of unitary countries such as Norway, France, Portugal and the UK to illustrate the value of national enabling and/or regulatory frameworks to support local level action. One of the central values of national programmes is that they can support the initiatives of local authorities that lack the resources to follow pioneers (Kern and Alber 2008). National support can also help ensure that climate policies are not confined to a few 'front runner' municipalities (Jones 2012: 1261).

However, an important question is why federalism has such an ambiguous effect. Why are veto points damaging to climate policy in countries such as Australia, Canada and the US, for example, but not in 'climate leader' Germany? Harrison and Sundstrom (2010: 274-275) identify three factors that explain why similar institutions can have different effects in different settings. Firstly, they argue that the 'distribution of costs' varies amongst federal systems. Secondly, federal institutions interact differently with public opinion. Thirdly, the 'rules of the game' can be different in different federations. These are important observations, and indeed apply not only to federal countries, but also apply more widely to help explain variation in climate change ambitions across other countries as well. It will be more difficult to get all the relevant actors or veto players in federal countries such as Australia, Canada and the US to agree to climate policies when certain states

are heavily dependent on fossil fuels, and where the 'distribution of costs' relating to climate policy are thus unequal. Likewise, as is the case globally, the regional concentration of fossil fuels is likely to impact public opinion in such fossil fuel dependent states, again making it hard to push climate policies through the policy process. Lastly, the 'rules of the game' (for example, the political opportunity structure or the electoral system) differ between federal (as well as unitary) states, thus potentially also explaining the variation between the climate 'laggards' and the climate 'leaders'. These features will therefore be explored in turn in the succeeding sections.

2.2.3. Fossil fuel interests

Transitioning to a low-carbon society in order to avoid dangerous climate change means transitioning away from the use of fossil fuels for the production of energy. As Schaffrin et al. (2014: 866) point out, the transformation of the energy system of electricity and heat production takes centre stage in countries' political efforts to mitigate climate change. Moreover, for countries that export large amounts of fossil fuels such a low-carbon transition means a significant loss of profits. This pattern is confirmed by recent studies. Lachapelle and Paterson (2013) found that countries with substantial exports of mineral fuels were less likely than others to implement any type of climate policy, and Fankhauser et al. (2015) found that the stock of a country's climate change legislation is negatively correlated with the share of fossil fuel and mining exports in a country. Moreover, Lachapelle and Paterson (2013: 565) highlight that, to the extent that fossil fuel exporters do develop climate policy, most (57%) have concentrated on the development of regulations and Research and Development (R&D). This feature, they argue, may reflect the entrenched power of fossil fuel interests in such countries and the need to fund technological solutions

like carbon capture and storage (CCS) in order to minimise costs for the domestic energy producers, and to continue the economic strategy centred on the use of fossil fuels. We can therefore expect countries with different fossil fuel dependencies to have different incentives to be ambitious on climate change, partly as a result of 'carbon lock-in' (Unruh 2000) and the associated veto power of fossil fuel industries (Bättig and Bernauer 2009).

2.2.4. Public opinion

As was highlighted by Harrison and Sundstrom (2010), not only will the distribution of costs affect the prospects of developing ambitious climate policy, but so will the way that institutions interact with public opinion. Dunlap and Jones define environmental concern as 'the degree to which people are aware of problems regarding the environment and support efforts to solve them and/or indicate a willingness to contribute personally to their solution' (2002: 485). Examining the direction and strength of public opinion in environmental and climate change governance is important due to its central role in the policy process (Pietscha and McAllister 2010: 221-2). Climate change policy calls for significant sacrifices from the public and from powerful interests in society, and if these are hostile or indifferent, such policies are unlikely to transpire (Lorenzoni et al. 2005). Heightened public concern increases the salience of an issue, which in turn may increase party competition and thus the prospects for more ambitious climate policies. This is underlined by Harrison and Sundstrom (2010: 268), who found that countries with higher levels of public concern were more likely to ratify the Kyoto Protocol. Likewise, Carter (2014) finds that heightened public concern for climate change was instrumental in the creation of the UK Climate Change Act.

Furthermore, in their review of why different federal structures impact differently upon climate change outcomes, Harrison and Sundstrom pointed out that federal systems interact differently with public opinion (see section 2.2.2.). They state that: 'public opinion thus operates as a switch, such that the same institutions deter policy change during normal times but may facilitate change when environmental issues are highly salient' (2010: 17-18). The implications of federalism are thus likely to depend, at least in part, on the salience of environmental issues with the electorate. Exploring levels of climate change concern within our case study countries, as well as the demographic groups that typically display such concern, will thus be important in explaining variation in the dependent variable and is carried out in Chapter 6.

2.2.5. The electoral system

The 'rules of the game' can also influence countries' ambitions on climate change. The political opportunity structure, a key feature of which is the electoral system, is particularly relevant in this respect. Electoral systems can significantly affect how actors engage with the policy process (Morelli 2004: 831), thus Sartori (1968) labelled the electoral system the 'most manipulative instrument of politics'.

There are several reasons to believe that proportional (PR) systems will increase the climate change ambitions of countries. With lower electoral thresholds and thus better opportunities for smaller or green parties to gain entry into parliament (Kitschelt 1988, 1994), PR systems tend to amplify the voices of a minority of voters for whom climate change is a priority (Harrison and Sundstrom 2010). The presence of small and green parties thus increases the salience of climate change and party competition on the issue (see Folke 2014, Spoon et al. 2014). In contrast to more restrictive plurality or majoritarian systems, which provide a strong disincentive to

vote based on a marginal issue such as climate change, PR systems make it more attractive for voters to vote for parties with a narrower appeal (Duverger 1959, Riker 1982). As highlighted by Spoon et al. (2014: 368) 'less permissive electoral rules not only reduce the threat of the issue owner to other parties, they also minimise the vote-winning potential for other parties emphasising a new issue.' Importantly, increased salience and party competition can lead to a 'competitive consensus', or a 'race to the top', whereby no party can be seen *not* to be supporting action on climate change (Carter and Jacobs 2014). PR systems also frequently entail coalition governments and so a more consensual pattern of democracy. Consensual institutions, by including more voices and minority concerns, promote 'kinder and gentler' policies, not only for minority groups and social welfare policy domains, but also for collaboration on climate change (Lijphart 1999, 2012).

Countering these arguments, however, Milner (1993) claims that PR and consensus forms of government actually entail a lower likelihood for cooperation, particularly if the issue is polarised or not particularly salient. In contrast to Lijphart's argument regarding the benefits of consensual institutions, Milner argues that majoritarian political institutions appear to have a strong capacity to constrain the access of minority 'veto groups' and therefore provide for wider engagement in international environmental treaties. Similarly, Recchia (2002) finds that a strong and dominating executive displays robust effects in explaining ambitious environmental outcomes. Yet, he also notes that contrary to his expectations, 'consensual political institutions are seen as quite capable in maintaining united international policy stances and engaging actively in international treaties' (2002: 482).

On balance, the evidence indicates that PR systems have a stronger positive effect on countries' climate change ambitions, with Scruggs (1999) finding a strong correlation between PR electoral systems and environmental performance, and

Fredriksson and Millimet (2004) and Lachapelle (2011) all demonstrating that PR systems and large multi-member districts have a significantly positive influence on environmental public goods.

2.2.6. The institutional governance system

A second feature of countries that changes the 'rules of the game' is the country's institutional governance system, which is defined as the configuration and institutional arrangements of states and private organisations that impact on and create the mechanisms through which economic and social outcomes within nations are produced (Griffiths and Zammuto 2005). Different typologies have been applied to institutional governance systems: one identifies a continuum stretching from being highly pluralistic to highly neo-corporatist, another ranges instead from 'liberal market economies' (LMEs) to 'coordinated market economies (CMEs) (see Hall and Soskice 2001).

Pluralist systems or LMEs are characterised by a high degree of plurality between differing levels of government and agents, or rather a high degree of competitiveness between stakeholders that seek to influence the climate change debate in order to protect or 'win' resources for their position. Government receives input from a small number of interest groups, and creates policy that is some vector of clashing interests. Such policy frameworks are most often associated with 'market governance' and are highly based on voluntarism (Griffiths et al. 2007: 420). The result is that policy tends to be heavily contested from the time it appears on the agenda all the way through implementation (Scruggs 1999: 3). Pluralistic governance systems and LMEs also tend to disproportionately benefit powerful businesses due to their organisational strength, structural privilege and informational advantages (Lindblom 1977, Griffiths et al. 2007). Interestingly, Bernhagen (2008) finds that

this latter characteristic, namely business-state information asymmetry, is particularly important in predicting countries' participation and compliance with international environmental agreements. International environmental politics is an area in which knowledge is particularly uncertain, issues are complex and material interests are ambiguously affected (Stokke 1997, DeSombre 2000). Businesses thus have strong incentives to exploit this situation to their advantage by making exaggerated predictions about the costs of international environmental agreements. 'Governments will be more susceptible to cheap talk and untruthful lobbying the more they depend on business for the gathering and interpretation of pertinent data' (Bernhagen 2008: 86).

Corporatist societies or CMEs, on the other hand, are characterised by high levels of policy concertation, interest aggregation and representation, and there is extensive consultation at various levels of the policy process. It might be argued that such institutional frameworks are bad for the environment, as two key stakeholders commonly included in consultation processes, namely unions and producer-groups, are often hostile to environmental regulation and are often part of the causes of climate change in the first place. Corporatist institutions thus face a dilemma in that it is difficult to devise and implement effective climate change policies and accompanying policy instruments without the active consent of business 'yet securing that consent may risk diluting policy to such an extent that it is insufficiently effective' (Grant 2011: 197).

However, as the effects of production are critical for environmental quality, any consultation process needs to include such groups if sustainable solutions are to be found. Moreover, the features of corporatist institutions are nonetheless more conducive to the environmental regulation of production compared to countries where such institutions are absent. Firstly, since the state retains the threat of direct

(perhaps strict and inflexible) regulation, industry is incentivised to pursue more flexible and cooperative solutions. Secondly, environmental regulation entails monitoring, enforcement and a long-term policy commitment. This will be more acceptable with a history of trust between industry, state and interest groups. Related to this argument is the point that if corporations are routinely consulted there will be less information asymmetry between them and the government, and a stronger incentive to be truthful about the true costs of regulation (Bernhagen 2008: 93, 102). Thirdly, it is argued that corporatist institutions are better at pursuing the public good, as institutionalised consultation will more often include peak associations (concerned with the overall result for its representees) than if the state negotiated with individual companies or organisations. Lastly, corporate systems can also compensate losers and reach a compromise amenable to all (Scruggs 1999: 5). Related to this, Bernauer and Böhmelt (2013) argue that economically 'kinder, gentler societies' – i.e. countries providing stronger state-sponsored social-safety nets for their people – perform better in terms of the environment. Similarly, Rootes et al. (2012) point out that in countries where support for welfare provisions and social democratic values and institutions are weaker, and where there is a stronger strand of possessive individualism in the national political culture (such as in the US), collective action to address climate change has been more difficult to achieve. A country's welfare provisions are strongly interlinked with its institutional governance system (Visser and Hemerijck 1997, Rhodes 2001). Such systems are therefore better at compensating or protecting losers from the ramifications of implementing policies, making compromise and ambitious climate policies easier to achieve. As such, Lachapelle and Paterson (2013) argue that these systems are more likely to develop strategies of 'ecological modernisation' (see Mol and Spaargaren 2002) as they are better placed to develop ambitious environmental policies,

principally because of the cooperative pattern of relations between state and business, which enables the state to coordinate policy and transform the interests and practices of business. Significantly, though corporatist institutions were originally set up to structure labour relations between state and industry, such institutions have increasingly been opened up to include other stakeholders as well, for example ENGOs, which thus work as countervailing influences against such vested interests. Supporting these arguments, numerous studies have found that corporatist societies experience better environmental and climate change outcomes than pluralist systems (Scruggs 1999 2003, Dryzek et al. 2002, Griffiths et al. 2007, Bernhagen 2008, Lachapelle and Paterson 2013).

2.2.7. Path dependence

The ways in which institutions are structured and organised – and importantly the past decisions emanating from such institutions – can also have a significant impact on a country's climate change ambitions. When seeking to understand complex political phenomena such as climate change, where feedback loops and non-linear dynamics are frequently involved (Garud et al. 2010: 760), path dependence can provide a useful framework for analysis (Greener 2005: 62). The concept of path dependence captures the idea that certain decisions or outcomes are shaped, reinforced or limited by preceding factors. Importantly, path dependency is not simply the argument that 'history matters' but also that 'particular courses of action, once introduced, can be virtually impossible to reverse; and consequently, political development is often punctuated by critical moments or junctures' (Pierson 2000: 251). These junctures are 'critical' as, once made, the resulting institutional arrangements can be difficult to change (Pierson 2004: 135). Path dependency does not, however, mean that actors are without agency (Mahoney 2001), only that past

events can shape an outcome – in this case climate policy ambition. This phenomenon has been confirmed by recent studies: Townshend et al. (2011) and Fankhauser et al. (2015) find that the existing stock of climate legislation and/or the existence of climate 'flagship' legislation create different contexts for climate policy development and innovation, and significantly influence subsequent policy formation and the climate trajectory of states. Path dependency is therefore a factor that may help explain variation between our case study countries.

2.2.8. Partisan composition of government

Thus far the chapter has outlined how various institutional features affect countries' climate change ambitions as identified by the comparative climate policy literature. However, a smaller segment of this literature also identifies the partisan composition of governments as a contributing factor to variation. Looking at EU member states, Jensen and Spoon (2011) found that more pro-environmental governments made better progress towards meeting their Kyoto Protocol targets. Similarly, in examining the extent to which national policies on international environmental issues were influenced by the policy preferences of political parties, Knill et al. (2010) found that the number of policies adopted in OECD countries increased if governmental parties adopted more pro-environment positions. Likewise, Schulze (2014) discovered that partisan environmentalism mattered for ratification responses of twenty-one OECD countries towards sixty-four environmental treaties. In addition, Folke (2014) finds that the presence of environmental parties has a significant positive effect on the country's overall environmental policy. More recently, in examining twenty-one OECD countries from 1980-2012, Jahn (2016) also found a significant partisan effect on environmental performance.

Although these findings are perhaps obvious or unsurprising, they nonetheless demonstrate the critical role of parties and partisan theory for a country's climate change ambitions. However, that begs the question as to why parties choose to embrace the issue of the environment or climate change in the first place. The comparative climate policy literature lacks a framework to enable us understand why this happens; indeed, the party political element is largely missing from this body of scholarship (for exceptions, see Carter 2006, 2013, Jensen and Spoon 2011, Spoon et al. 2014). The role of political parties and the party politics literature is a missing piece of the comparative climate policy puzzle, and will thus be the focus of the next section.

2.3. The party politics literature

The academic literature on party politics is naturally a vast body of scholarship that has been developing for far longer than the comparative climate policy literature. As such, a comprehensive review is not possible here, but the following section will focus on the key features and debates of this literature as it relates to the research puzzle. As highlighted above, we need to understand why mainstream parties choose to embrace the new issue of climate change. Yet, it is still the case that, as Carter noted a decade ago, 'there is a strange imbalance in the academic study of the party politics of the environment' (2006: 747). Whereas most issues of green party politics have been examined (e.g. Bomberg 1998, Müller-Rommel and Poguntke 2002; Richardson and Rootes 2006, Spoon 2009, van Haute 2016), analysis of how the environment impacts on mainstream (i.e. established and electorally successful) parties and party competition is surprisingly scarce, particularly in countries without an electorally successful green party. As such, this section outlines the broader party politics literature as it informs the investigation as well as the nascent literature on

the party politics of climate change. Moreover, the section focuses on systemic features rather than on individual party characteristics, as the latter will be derived from the broader systemic literature and examined further in Chapter 3. The following section outlines how party behaviour is affected and moderated by both institutional and societal factors, and importantly highlights the relevance of party competition and the competitiveness of party systems in making the issue of climate change salient and one that mainstream parties embrace. Significantly, the relevance of these features for explaining party behaviour underlines how the comparative climate policy literature and the party politics literature can complement each other to answer the thesis' research puzzle.

2.3.1. Party Behaviour

The party politics literature identifies three models of party behaviour, or rather party types, which are the 'vote-seeking' party, the 'office-seeking' party and the 'policy-seeking' party. The vote-seeking party is derived from Down's (1957) seminal work on electoral competition, and describes the groups of agents seeking to maximise votes in order to control government. Office-seeking parties, however, seek to maximise their control over political office or government portfolios as opposed to merely maximising votes, whilst policy-seeking parties choose to maximise their effect on public policy as opposed to gaining electoral or governmental strength.

However, as outlined in Strom's (1990) influential paper, all three models have important shortcomings. The assumptions and logic behind the Downsian vote-seeking party, outlining how parties will converge towards the middle of the policy spectrum in order to maximise their appeal to voters, have been heavily criticised, citing numerous examples of parties deserting the median voter. Similarly, the existence of parties catering to small or niche social groups defies the logic of 'catch-

all' competition (Kirchheimer 1966). The model of the office-seeking party has also been criticised, as evidently many parties willingly forego the benefits of holding office. Parties often choose to stand outside a governing coalition, or leave a coalition in the middle of a parliamentary term with no chance of joining an alternative government. Moreover, as Strom (1990: 568) points out, 'the high incidence of minority governments in many parliamentary democracies indicates office-shyness.' The model of the policy-seeking party is less well developed, and consequently harder to refute, as no party will join a government without effecting policy change in its favour, i.e. all parties will presumably be policy-seeking.

Strom not only outlines the poor empirical fit of these three models, but also how they are based on unrealistic and simplistic assumptions. Obviously the models are by design simplifications, and as Strom points out 'pure vote seekers, office seekers, or policy seekers are unlikely to exist' (1990: 570). Nonetheless, he argues that the definition of parties as vote-seeking, office-seeking or policy-seeking are overly static, treating and analysing each election or government formation separately, 'as if parties had no history and no future' (1990: 569). However, in reality, party strategies in elections and coalition bargaining are typically conditioned by past events as well as by the anticipation of future benefits. Furthermore, he contends that such models treat parties as unitary and unconstrained actors, though they are in fact heavily constrained. Significantly, he argues that these party models ignore the institutional environment as a determinant of behaviour (1990: 570).

As such, Strom develops a 'unified theory of party behaviour' that identifies the factors that systematically affect the trade-offs between votes, office and policy. One set of factors is to be found in the organisational properties of political parties themselves and especially the constraints of party leaders. The second set of variables that help us understand party behaviour and the trade-offs between votes,

office and policy is the electoral, legislative and governmental institutions under which the parties operate. Consequently, Strom argues that: 'vote-seeking, office-seeking, and policy-seeking parties emerge as special cases of competitive party behaviour under specific organisational and institutional conditions' (1990: 570). Thus in order to understand variation in party behaviour and agreement on climate change, we must also understand the conditions under which the parties operate. This observation underlines the importance of combining the comparative climate policy literature with the party politics literature in order to answer our research puzzle.

2.3.2. Party Systems

The above discussion also points to the importance of the country's party system, as this is one such 'organisational and institutional condition' under which parties operate. A party system is conceived as a set of 'interacting units' where the actions of each participant entity are affected by the actions of all the others (Waltz 1979: 40). In game theoretic language, 'systemic features map the structure of the game, as defined by actors' resources, preference schedules, and feasible moves that translate into positive or negative outcomes contingent upon the other players' moves' (Kitschelt 2007: 523). Party system theory thus identifies the number of players, the distributions of resources and capabilities among them, and permissible rules of movement to arrive at predictions that hold true regardless of internal idiosyncrasies of the individual elements (Kitschelt 2007: 523). Sartori (1976) developed a seminal classification of party systems, and suggested they should be classified by the number of relevant parties in the country and the degree of party fragmentation. As such, party systems are largely classified as being a 'dominant' party system, a 'non-partisan' system, a 'one-party' system, a 'two-party' system or a 'multi-party' system. Understanding how these different systems affect party behaviour is thus

critical to understanding the research puzzle. As Kitschelt notes: 'the substantive alignments of interests and the competitiveness of party systems representing such interests are critical variables in studies of political economy, public policy, and democratic regime survival' (2009: 522).

A significant part of the party systems literature (e.g. Taagepera and Shugart 1989, Lijphart 1994) outlines how party systems with fewer parties (e.g. majoritarian or runoff-systems) create a convergence of positions, whilst larger party systems (e.g. PR systems) create divergence, as there is a stronger incentive for 'product differentiation' when a system is more fragmented by multiple parties and a wider ideological range (Downs 1957: 126-127, Cox 1990, Kitschelt 1994, Ezrow 2008). However, as noted in section 2.2.5. on electoral systems, there are also reasons to expect the opposite relationship, i.e. that two-party systems will diverge and multi-party systems will converge. There is naturally a close link between party systems and electoral systems. Duverger (1951) argued that majoritarian systems generally result in two-party systems, whilst proportional systems generally result in multi-party systems (although there have been exceptions to these rules, see Taagepera and Shugart, 1989, Cox 1997, Dunleavy and Diwakar 2013). As such, there will be countervailing institutional incentives for parties in multi-party systems, preventing them from diverging, whilst there are fewer institutional incentives for parties in two-party systems to converge. Moreover, theoretical work by Palfrey (1984) and Callander (2000) shows that existing parties in a two-party system may be motivated to present divergent policies in order to deter entry by new competitors who might siphon off votes from the existing parties. Also, in situations where parties have to gain votes in multiple constituencies and these constituencies differ in the location of their median voter, a risk-averse party may actually opt for non-centrist positions to ensure it wins certain constituencies, rather than taking moderate positions that may

render it more widely competitive, but that do not give it a decisive advantage in any given set of constituencies (Austen-Smith 1986, Grofman et al. 2000). Thus two-party systems do not necessarily converge and multi-party systems do not necessarily diverge, as parties' positions and strategies might depend as much on electoral competition and the institutional context as on the number of parties. This observation again emphasises the benefit of marrying the party politics literature with the comparative climate policy literature, in order to examine how institutional features moderate party behaviour, thus helping to answer the research puzzle.

2.3.3. 'Positional' and 'issue' competition

Regardless of the institutional context, however, parties will differentiate between two forms of party competition. Whereas party competition has traditionally been positional, i.e. structured by class-based voting and focused on typical left/right socio-economic issues (Lipset and Rokkan 1967, Dalton 2002, Knutsen 2004, Thomassen 2005), it is today increasingly characterised by a wider array of issues and what Carmines and Stimson (1993) label 'issue competition'. Issue competition describes the process whereby parties compete over which issues should dominate the party political agenda. The increase in the number of issues addressed by political parties is reflected in the growth in length of party manifestos – from the 1950s to the 1990s the average manifesto increased more than four times. Thus as a consequence of increased issue competition, the party political agenda is characterised by a greater capacity and complexity (Green-Pedersen 2007: 608). The literature on issue competition has traditionally focused on how parties compete by selectively emphasising their own issues in order to gain electoral advantage (e.g. Robertson 1976, Budge and Farlie 1983, Carmines 1991, Petrocik 1996) and ignore their opponents' issues (Budge and Farlie 1983, Petrocik 1996), suggesting that issue

competition is characterised by avoidance rather than engagement. However, recent scholarship has highlighted the importance of studying the interaction between parties, as parties can no longer exclusively emphasise their own issues but are forced to respond to those of other parties as well (see Damore 2004, Holian 2004, Sigelman and Buell 2004, Green and Hobolt 2008, Walgrave et al. 2009, Vliegenthart et al. 2011, Tresch et al. 2013). In other words, issue competition implies that political parties are forced to pay attention to all the issues on the agenda, whether or not they like or 'own' the issue. As such, parties will want the issues that they are positively associated with, or 'own', to dominate the agenda.

Moreover, literature examining the differences between niche and mainstream parties has shown that mainstream parties in particular are capable of shifting their emphasis of issues and going beyond a narrow issue appeal in order to respond to the electoral threat of new or niche parties (Meguid 2005 2008, Adams et al. 2006, Ezrow 2007). Niche parties – such as green, radical right or ethno-territorial parties – differ from mainstream parties in several ways (Meguid 2008: 3-4). Firstly, they reject the traditional class-based orientation of politics. Secondly, their policies do not necessarily fit into the traditional left-right policy dimension. Thirdly, they consciously limit their issue-appeal by focusing on their 'raison d'être', such as environmental politics for green parties. As such, the party's success is heavily reliant on the salience and importance of this particular issue. However, Meguid (2008) argues that the success or failure of niche parties is not solely the result of the effects that institutions or sociological factors have on issue salience, but importantly must also be the result of the strategies of mainstream parties themselves and the form of competition they create around these niche issues. Importantly, she points out that such competition does not merely consist of movements to the left or the right, or converging or diverging along a policy dimension. Rather, parties can affect

the attractiveness and distinctiveness of themselves and others by altering the salience and ownership of issues. When mainstream parties adopt 'dismissive' strategies towards the new party or issue by ignoring it, increasing the saliency of the issue becomes difficult, and it becomes equally hard for the niche party to gain support. Similarly, when mainstream parties adopt 'accommodative' strategies towards the new issue this also weakens the niche party, as there might be less need for a separate party representing a cause that is already being absorbed into mainstream politics. Alternatively, parties might adopt 'adversarial' strategies towards niche parties and issues. Meguid (2008) points out that an adversarial strategy maybe chosen not only to undermine the niche party that is threatening the mainstream party's own vote, but it can also be chosen in order to strategically bolster the support of the niche party in order to threaten the vote of the mainstream party's main opponent.

However, as Spoon et al. (2014: 364) point out, the conditions under which mainstream parties choose to mobilise (rather than simply ignore) an issue normally 'owned' by niche parties remains unclear. Similarly, Green-Pedersen notes that the increased importance of issue competition 'has not received enough attention, either theoretically or empirically (2007: 607). Significantly, he argues that the existing literature has little to say about the central question emerging from the growing importance of issue competition: 'What determines which issues actually come to dominate the party political agenda?' (Green-Pedersen 2007: 608). We therefore need to understand how the issue of climate change becomes a salient issue and rises up the political agenda, becoming an issue of party competition.

2.3.4. Party politicisation of the environment

Despite the growth in the number of issues on the political agenda, traditional materialist issues such as the economy, taxation and welfare nonetheless still dominate it. Thus, as Carter notes, mainstream parties are only likely to engage with a new issue such as climate change if it becomes the subject of intense partisan rivalry. Thus 'the degree of party politicisation of the environment – the process by which this issue ascends the political agenda to become electorally salient and the subject of party competition – may be a significant indicator of the importance attributed to the issue in a particular polity' (2006: 748). However, given the strong commitments of most mainstream parties to economic growth and consumption, they will have significant incentives not to embrace competition on this issue. What then might explain the instances in which we in fact do see partisan rivalry and the creation of a 'competitive consensus' (Carter and Jacobs 2014) on climate change?

One strand of the party competition literature highlights societal factors in explaining why climate change becomes salient and politicised (Green Pedersen 2007, Spoon et al. 2014). Firstly, cross-national differences in public opinion are an obvious explanation for cross-national differences in party competition. The varying salience of climate change across time within a country can similarly be down to public concern. The role of mass media in communicating climate change is important in this respect, as it can either drive the public's and politicians' attention towards the issue, or away from it (Bord et al. 2000). In addition, focusing events such as extreme weather, flooding or bush fires can increase the salience of climate change and its media-coverage, and consequently make politicians compete on the issue. The state of the economy or exogenous economic factors can also impact the extent to which climate change becomes a vote-winner (Ezrow 2007, Steenbergen et al. 2007, Adams et al. 2009, Spoon et al. 2014). It might for example be easier to

politicise the issue of climate change in post-materialist societies, in societies where there is large potential for green growth, in societies where there are co-benefits of emissions reductions (e.g. improved air quality), or where there are fewer vested interests (such as fossil fuel companies).

Institutional factors explaining competition have been touched upon throughout the chapter, for example the structure and competitiveness of party systems. If the general competitiveness of the party system is more intense, climate change is naturally more likely to be politicised. In this respect, the electoral threat of other, particularly green, parties may be a key explanation as to why a mainstream party embraces the new issue (Spoon et al. 2014). Changing policy positions may be more difficult for mainstream parties as they are already committed to certain issues because of their ideology and reputation. Thus only when there is a potential electoral threat are parties likely to shift their preferences (Meguid 2008, Spoon et al. 2014).

Green-Pedersen importantly notes that these two perspectives – the societal and institutional – are by no means mutually exclusive, and probably interact in order to explain how climate change is politicised. However, the relative importance of the two different types of factors is interesting, as 'it implies two very different views of modern politics in terms of predictability and two very different assessments of the role and importance of political parties in modern politics' (Green-Pedersen 2007: 625). If the outcome of issue competition is determined more by the internal structure of competition between political parties, it places political parties as much more central actors in modern politics than if the outcome were determined by forces such as the mass media or focusing events. The thesis thus allows us to examine these dynamics, and to examine the extent to which issue competition is the result of the structure and competitiveness of the party system or societal factors.

Thus, overall, the party politics literature identifies party competition as key in incentivising parties to embrace the new issue of climate change. Significantly it underlines the importance of institutional and societal factors in influencing such competition, thus highlighting the benefits of marrying this body of scholarship to the comparative climate policy literature to inform the investigation, and also underlines the contribution of the thesis. The relationship between institutional features and party agreement is examined in Chapter 4 whilst the relationship between societal factors (public concern) and party agreement is assessed in Chapter 6. The relative importance of both factors in explaining party agreement on climate change is analysed in Chapter 7.

2.4. Conclusion

The current chapter has sought to provide an overview of the relevant literature that informs the research puzzle of the thesis, and situates the contribution of the thesis within that literature. The first section outlined the existing literature on polarisation over climate change, and pointed out that it is limited to single country case studies and the identification of the presence or growth or polarisation only, rather than an understanding of the causes and drivers of the polarisation. Moreover, the literature has neglected examining the opposite relationship, i.e. explaining the presence of cross-party consensus on climate change in certain countries. However, it was pointed out how these limitations and omissions were perhaps the result of a lack of cross-national or comparative data allowing us to examine the relationship between political parties and the issue of climate change. As such, the case was made to use a salience-based approach using Comparative Manifesto Project data. Using the inter-party difference in issue prioritisation of climate change (climate salience) as the dependent variable of the thesis not only provides comparable cross-national data on

political parties and climate change, but also captures a particularly serious form of polarisation where climate change is either conceived of as a serious policy problem that warrants addressing or not. The thesis will thus fill a significant gap in the literature by identifying causes and drivers of party polarisation and consensus on climate change, and makes an important empirical contribution to the field through the development of a cross-national measure of parties' climate change salience based on the CMP data.

The second section outlined the comparative climate policy literature. This body of scholarship informs the investigation and provides importance guidance to it, as the same features that prevent states from becoming ambitious on climate change are also likely to prevent the issue from becoming an issue of party agreement. The section outlined the country characteristics that are controlled for in the investigation and those that are not, thus providing the basis for the fsQCA and comparative case study analyses in the succeeding chapters, and the overall argument of the thesis. Given that the countries examined in this thesis are all highly developed democracies, the relevant features falling under this umbrella description cannot form part of the reason for variation in party agreement on climate change. However, the countries' structure and number of veto points, the presence of fossil fuel interests, public opinion, the electoral system, the institutional governance system, path dependence and the partisan composition of governments cannot be controlled for and will thus be examined in subsequent chapters, either through the medium-N fsQCA analysis or the comparative case study analysis of Australia and Norway. Importantly, however, the section also pointed out how the comparative climate policy literature lacks an understanding how such institutional features impact political parties, and how and why parties in turn influence country outcomes and

ambitions on climate change. By helping to answer these questions, the thesis makes a significant contribution to this literature.

The third section of the chapter therefore outlined the relevant party politics literature as it informs the investigation, although it was focused on systemic features as opposed to individual-level party features, as these will be derived from the broader literature and examined further in the next chapter. This section outlined how political parties will embrace the issue of climate change to create agreement on it if it becomes an issue of party competition, and importantly emphasised the importance of institutional and societal features in incentivising such behaviour. By synthesising this literature with the comparative climate policy literature the thesis thus provides a significant contribution to the party politics literature, by identifying how such features impact party behaviour. In addition, the section outlined how the analysis of mainstream parties' relationship to the climate change issue enables the thesis to make a significant contribution to the field, as the literature thus far has largely been focused on the wider environment or green parties only.

Thus, overall, the chapter argues that these two bodies of literature need to be combined in order to answer the research puzzle, and the subsequent chapters will examine in more detail how these bodies of scholarship interact to provide insight and guidance to the investigation. Moreover, by examining how institutional and societal features influence party behaviour and the ways in which parties strategise on climate change as an effect of their institutional setting, the thesis fills significant gaps in both literatures.

Chapter 3: Explaining variation in parties' climate change salience – Examining the effect of party characteristics across eighteen OECD countries

Introduction

It was argued in the previous chapter that we lack an understanding as to why political parties choose to embrace or engage with the issue of climate change. Whereas the previous chapter outlined how institutional and party system features might impact this relationship, the current chapter builds on this literature and seeks to explain variation in parties' climate change salience – i.e. how prominent they make the issue in comparison to other issues – specifically examining the effects of party characteristics. By doing this, the chapter helps fill crucial gaps in both the comparative climate policy literature and the party politics literature, which were outlined in Chapter 2. Firstly, by focusing on political parties and party characteristics, the chapter fills a significant gap in the comparative climate policy literature, which has often been focused on national governments and country characteristics, or international negotiations. Secondly, by focusing on how mainstream parties respond to the issue of climate change in particular, it fills an important gap in the party politics literature, which has often concerned itself with the environment or green parties only. Lastly, the chapter makes a significant empirical contribution to the field by creating a novel measure of parties' climate change salience based on the Comparative Manifesto Project (CMP) data. Collectively these are important gaps to fill. How prominent parties make the issue of climate change in comparison to other issues tells us a lot about how ambitious they are on it, and understanding why mainstream parties make climate change a

more or less salient issue sheds light on opportunities and barriers to party competition and action on the issue. Moreover, such an analysis also feeds into the wider literature on the adaptability of parties to new issues (Rohrschneider 1993, Ware 1996, Knutsen 1997, Dalton 2002 2009, Båtstrand 2014) and the nature of the climate change issue (Gemenis et al. 2012, Pardos-Prado 2012, Carter and Clements 2015).

The first section of the chapter outlines the theories and hypotheses to be tested from the party politics literature, whilst the second section outlines the data and methodology – and in particular the novel measure of climate change salience. This is followed by the results and their discussion in the third and fourth section respectively. The fifth section discusses the limitations of the analysis and avenues for future investigation, before the sixth and final section concludes. A key finding of the chapter is that mainstream parties have not made climate change a salient issue. Furthermore, although mainstream parties of both the left and the right are broadly found to be incorporating climate change into their political programmes to a certain extent, significant differences remain. The chapter reveals that left-right ideology is influential in explaining these differences, and is more important than any other party characteristic in explaining variation in parties' climate change salience. This underlines the importance of ideology relative to parties' economic and policy preferences, their size and strategic incentives, and their incumbency constraints. This finding therefore points towards the issue of climate change being a partisan issue as opposed to a valence issue. Moreover, the results of the analysis of parties' climate change salience contrast with those of an identical analysis run explaining variation in parties' environmental salience more generally, where ideology is found to have no effect. These contrasting results thus underline how the two issues should

be treated differently, and lend further support to the argument that climate change is primarily a partisan and not a valence issue.

3.1. Party characteristics and climate change salience

The nascent literature on the party politics of climate change outlines four broad party characteristics to be tested in this chapter, two of which relate to partisanship and two of which relate to a party's position within the party system. These features have previously been identified as affecting parties' propensity to embrace climate change in various country case studies (e.g. Carter 2006), but have never before been tested comparatively or quantitatively. Båtstrand (2015) compares the climate platforms of nine conservative parties, but this is a small-N sample and, moreover, compares only one party family. Looking beyond single country case studies and particular party families to large-N comparisons, however, allows us to unearth general party tendencies cross-nationally and thus to arrive at conclusions about the effects of party characteristics more confidently.

3.1.1. Left-right ideology

Though 'new politics' issues such as the environment and climate change supposedly cut across the traditional left-right divide, there are several reasons why we might expect right-wing parties to respond less positively towards the issue than left-ring parties. Firstly, right-wing parties are typically averse to state intervention and regulation, or the expansion of state functions, whilst such actions align more closely with left-wing ideology. As McCright and Dunlap highlight, environmental policy 'typically entails governmental intervention into markets and restrictions on property rights, challenging conservative values, but is consistent with liberals' view that protecting collective welfare is a proper role of government' (2011: 160).

Importantly, de-carbonising the global economy entails more profound intervention into peoples' lives and markets than addressing traditional environmental problems. As such, we can expect this relationship to be even stronger when it comes to the issue of climate change.

Secondly, whereas left-wing ideology is more often aligned with internationalist sentiments, such as providing development aid and supporting global governance structures, right-wing ideology traditionally has a more nationalistic focus, such as wanting to protect a national way of life and national sovereignty. This socio-economic characteristic of left-right ideology is described in many ways in the literature, such as 'post-materialist versus materialist' (Inglehart 1990), 'left-libertarian versus right-authoritarian' (Kitschelt 1994), 'Green-Alternative-Libertarian versus Traditional-Authoritarian-Nationalist' (GAL/TAN) (see Hooge et al. 2002) or simply as 'new politics' (Knutsen 1995). Importantly, this socio-economic characteristic is expected to make left-wing parties more likely to embrace climate change than right-wing parties. As Owens (1986: 197) argues: 'We might expect environmentalism to be more closely aligned to the philosophy of the left than that of the right, since socialism and 'ecocentrism' share a collectivist spirit and have many roots and values in common.' Though this argument also relates to the environment and not to climate change, the point is particularly pertinent for the latter issue, as the altruism and collectivist spirit demanded to address the issue is even more acute when it comes to climate change (as politicians are challenged to think of people in other countries or future generations). Likewise, right-wing ideology is often associated with being socially conservative. Political psychologists find that conservatives are more likely to express system justification tendencies than liberals, who are more amenable to critiques of the established order (Feygina et al., 2010; Fielding et al., 2012). Thus we might expect it to be harder for right-wing

parties than for left-wing parties to embrace the global solutions needed to address climate change.

Thirdly, the 'new' issue of climate change is more likely to be taken up by new or niche parties (e.g. green), thus entailing increased party competition, often on the left of the political spectrum (Spoon et al. 2014). This may in turn lead the mainstream left party to take a stronger position on climate change than the mainstream right party (Rohrschneider 1993, Spoon et al. 2014).

Thus it is not surprising that empirical research shows that right-wing parties will generally respond less positively to the issue than left-wing parties (Kitschelt 1989, Dunlap et al. 2001, Carter 2006 2013, McCright and Dunlap 2011). As such it is hypothesised that:

> **H_1:** Party ideology is associated with the salience given to climate change in party platforms, with right-wing parties giving it less salience than do left-wing parties.

3.1.2. Economic and policy preferences

A party's economic and policy preferences are not necessarily identical to its ideology, and thus need to be treated and tested separately. Parties can be far to the right on the political spectrum yet not embrace a free market economy, for example, and similarly they can be far to the left on the political spectrum and not embrace state intervention or welfare platforms. Parties are often wedded to certain economic or policy preferences that make it easier or harder for them to embrace the dominant policy means for addressing climate change. Being in favour of a free market economy, for example, can be hard to reconcile with the state intervention and market regulation that a lot of climate policies necessitate. Although free market

principles are not irreconcilable with climate policies (as several climate policies embrace market principles, such as emissions trading schemes), these policies nonetheless require substantial state intervention and market regulation in the start-up phase, and in many instances continuously. Such measures are therefore easier to reconcile with more interventionist preferences, such as social democratic or welfare platforms. As was outlined in Chapter 2, support for welfare and social democracy is associated with support for environmental and climate change protection at the country level, as this is connected with more post-materialist and left-leaning values (Witherspoon 1994: 135, Krönig 2010). Economically 'kinder, gentler societies' perform better in protecting the environment (Bernauer and Böhmelt 2013), whilst collective action to address climate change has been more difficult to achieve in countries where support for welfare provisions and social democratic values and institutions are weaker (Rootes et al. 2012). As such, we might expect a similar relationship to exist for political parties. It is consequently expected that:

> **H_2:** A party's policy and economic preferences is associated with the salience given to climate change in party platforms, with parties who are more in favour of a free market economy giving it less salience than do parties with more interventionist preferences.

3.1.3. Size and strategic incentives

The size of a party is also expected to affects its strategic incentive to embrace climate change and make it a salient issue. Smaller parties especially are faced with strategic incentives to emphasise climate change. Due to their lower vote share and the resulting lack of media and popular attention, smaller parties are more likely to emphasise 'extreme' or niche positions such as climate change in order to gain

attention. Moreover, not having to cater for or catch the broad church of voters that large parties need to become a governing party, smaller parties tend to be more ideologically driven to maintain their small yet crucial voter base, resulting in increased emphasis on extreme or niche positions (Abou-Chadi and Orlowski 2016). Another incentive for small parties to take up such positions is to achieve policy differentiation and issue ownership (Wagner 2012). Furthermore, Spoon et al. (2014) argue that it is harder for larger mainstream parties to shift to a greener position as they are already committed to certain issues because of their ideology and reputation. In contrast, the 'political losers' (i.e. smaller and less well-established parties) within a party system are more likely to emphasise extreme or niche issues, as they are more likely to benefit from the emergence of the new issue and have less to lose in terms of reputation (De Vries and Hobolt 2012, Spoon et al. 2014). It is consequently hypothesised that:

> **H_3:** Party size is associated with the salience given to climate change in party platforms, with larger parties giving it less salience than do smaller parties.

3.1.4. Incumbency constraints

Whether a party is in or out of government is also likely to affect its propensity to make climate change a salient issue. The party competition literature suggests that opposition parties will be more likely to emphasise new issues such as climate change, as they will be eager to find ways of attacking the government. As highlighted by Klingemann et al., opposition parties 'have a strong incentive for innovative framing of alternatives to current policy. Incumbents have a record, but the opposition has only its word' (1995: 28). Opposition parties can more easily

criticise the status quo, and also do not have to stand to account for the current levels of ambition. However, as Carter (2006: 751) points out:

> When a party moves from opposition to government, and thereby directly confronts all the practical difficulties of environmental governance – the intractability of many problems, the high financial and political costs of solutions compared to the often invisible benefits – then it might temper any previous enthusiasm for environmental issues.

Again, though Carter is here describing the environment, the argument is particularly relevant – or rather more acute – for the issue of climate change. The intractability of the problem and the costs of solutions compared to the invisible (or importantly, often non-national) benefits are all exaggerated when it comes to the issue of climate change in particular as opposed to other and more traditional environmental problems. The final hypothesis thus regards the effect of incumbency constraints on parties:

> **H_4:** Incumbency constraints are associated with the salience given to climate change in party platforms, with parties in government giving it less salience than do parties in opposition.

3.2. Data and methodology

As outlined in Chapters 1 and 2, there is limited data available that allows us to explore how mainstream parties respond to the issue of climate change; in particular, the handful of relevant expert surveys and the CMP dataset examine only the issue of the environment. If coded manually, however, the latter source allows us to uncover information specifically on climate change. The climate change content of parties'

manifestos is subsumed within a larger code for all environmental policies[4], thus the two issues were separated in order to measure only climate change salience.[5] Climate change content was coded as such only if it was explicitly about climate change, to provide a conservative measure. This included statements about the dangers of climate change and the importance of protecting the earth for future generations, emissions reduction targets, targets for renewable energy, green taxes aimed at reducing emissions, and explicit mitigation policies (e.g. energy efficiency programmes, retrofitting insulation and improving building standards, investing in public transport and incentivising low-emissions vehicles, and anti-deforestation policies). Several quasi-sentences were climate change related (i.e. implementing the proposed policy would have a large climate change mitigation or adaptation benefit), however, unless the policy was explicitly for this purpose it was not coded as climate change content. After establishing the total number of climate change quasi-sentences in the party's manifesto, this was then converted into a proportion of the overall manifesto by dividing it by the total number of manifesto quasi-sentences.

Climate change really ascended the party political agenda in many countries during 2006, with the publication of the Stern Review and the release of Al Gore's documentary 'An Inconvenient Truth'. These events were followed by the publication of the 4th IPCC report in 2007, the GFC in 2008 and the COP in Copenhagen in 2009. Given the increased prominence of climate change after these

[4] (*per501) Environmental Protection: Positive* 'All general policies in favour of protecting the environment, fighting climate change, and other 'green' policies' (Volkens et al. 2014: 14).

[5] Using the 'Browse Corpus (by document)' function on the CMP website, all quasi-sentences receiving the environmental (*per501*) code are shown for the relevant country, election and party. If needed, quasi-sentences were translated, and then re-coded as being either environmental or climate change content.

events – and given the equally pressing challenges of the GFC – the period post-2008 is thus a 'hard case' to test parties' true ambitions and willingness to address the issue. If more than one election was coded post-2008, the first election closest to this year was chosen in order to increase comparability across countries.

Only parties from developed democracies (OECD countries) are chosen, as these have a particular responsibility under the UNFCCC to deal with climate change (due to their historical emissions as well as their greater wealth and capacity to deal with the issue). Some countries and parties did not have manifestos coded after this period and were thus excluded. Denmark and Iceland were also excluded due to them not having manifestos in the traditional sense. Their election programmes are extremely short and more like 'brochures', making substantive comparability an issue. Further, given that we are primarily concerned with how mainstream parties respond to climate change, outlier parties with levels of climate change salience higher than three standard deviations above the mean were removed[6]. An overview of the countries and parties included in the dataset (127 parties from eighteen countries) and the election year is shown in Table 3.1. An overview of the proportion of each party's manifesto that is devoted to climate change is shown in the Appendix (Table 1A).

Having outlined the dependent variable, attention is now turned to the operationalisation of the independent variables. To measure the effect of parties' left-right ideology, the article uses the CMP's right-left (RILE) positioning. This composite measure includes socio-economic features such as a party's attitude toward state intervention and expansion, protecting a national way of life, and internationalism. Though this measure has occasionally been criticised (see Gemenis

[6] The Swedish Greens, the Swedish Centre Party, the Italian Five Star Movement and the Swiss Greens.

Table 3.1. Countries, parties and election year included in the dataset.

Country	Parties included	Year of manifesto/ election
Sweden	V Left, SAP, FP, Kd, MSP, SD	2010
Norway	SV, AP, V, KrF, H, Sp, FrP	2009
Finland	VL, VAS, SSDP, KD, KK, SK, PS (Finland), RKP/SFP	2009
Belgium	Green, sp.a, openVLD, LDD, CD&V, N-VA, VB	2010
Netherlands	GL, SP, PvdA, D'66, VVD, CDA, CU, PVV, PvdD, SGP	2010
Luxembourg	GLEI-GAP, La Gauche, LSAP/POSL, DP/PD, CSV/PCS, ADR	2009
France	FDG, Les Verts, PRG, PS (France), PR, MoDem, UMP, NC, AC, FN	2012
Italy	RC, PdL, SEL, PD, CD, SC, UdC, FDI-CDN, 3L, SVP, VdA–APF	2013
Spain	Geroa Bai, Amaiur, Compromís-Q, IU, PSOE, UPyD, PP, CiU, FAC, PNV/EAJ, ERC, CC, BNG	2011
Portugal	PEV, BE, PCP, PS (Portugal), PSD, CDS-PP	2009
Germany	Bündnis '90/Die Grünen, LINKE, SPD, FDP, CDU/CSU	2009
Switzerland	GLP, SPS/PSS, FDP/PRD, CVP/PDC, EVP/PEV, CSP/PCS, SVP/UDC, BDP/PBD, MCG	2011
UK	Labour, Liberal Democrats, Conservative	2010
Ireland	ULA, Greens, Socialist, Labour, Fine Gael, Fianna Fáil, Sinn Féin	2011
USA	Democrat, Republican	2012
Canada	Green, NDP, LP, CP, BQ	2011
Australia	Greens, ALP, LPA, LNP, NPA	2010
New Zealand	Greens, Labour, ACT, United Future, National, NZF, Maori Party, Mana Mana	2011

2013 for an overview), it remains widely used and has almost achieved a monopoly status in the field (Laver and Garry 2000: 620). Moreover, in a thorough review and analysis of the measure, Mölder (2013) finds that it is valid for countries that have not experienced a communist past, which is what I am concerned with in this thesis. To measure the effect of parties' economic and policy preferences, the article uses the composite CMP-measure of how favourable a party is to a free market economy[7]. The parties' share of the vote[8] is used to measure the effect of party size. To measure the effect of incumbency constraints, a dummy variable was created and parties were awarded a score of 1 or 0 depending on whether they were in government or opposition (respectively) at the time of writing their manifesto. The descriptive statistics for all the variables can be found in Table 3.2.

Table 3.2. Descriptive Statistics.

	Mean	Min.	Max.	Std. Dev.
Climate change salience	0.033	0	0.152	0.032
Left-Right Ideology	-7.321	-63.380	56.326	20.463
Free Market Economy	3.511	0	21.951	4.039
Size	12.755	0.05	48.735	12.570
Incumbency constraint	0.275	0	1	0.448

An OLS multiple regression is then performed, clustering the standard errors around country membership to help correct for the intra-class correlation and relax the requirements of sampling independence.

[7] CMP's programmatic dimension '*markeco'* (*per401 'Free Market Economy'* + *per414 'Economic Orthodoxy')*

[8] As given in the CMP dataset (*'pervote'*)

3.3. Results

As can be seen in Table 3.1, the climate change salience of parties' manifestos ranges from 0% at the lowest to 15% at the most, with the mean being 3.3%. Though most parties mention climate change in their manifestos, there is still significant variation between parties. Breaking the results down into party families as demonstrated in Figure 3.1, we can see that ecologist or green parties clearly have higher levels of salience than the other party families, and we can also see a downward trend towards the right of the figure (and political spectrum), meaning that right-wing parties generally have lower levels of salience. However, the trend is weak and not straightforward. The more centrist party families (e.g. Christian Democrat and Conservative) have higher levels of salience than their neighbouring party family to the left for example, and there is variation both within party families and between party families on each side of the political spectrum.

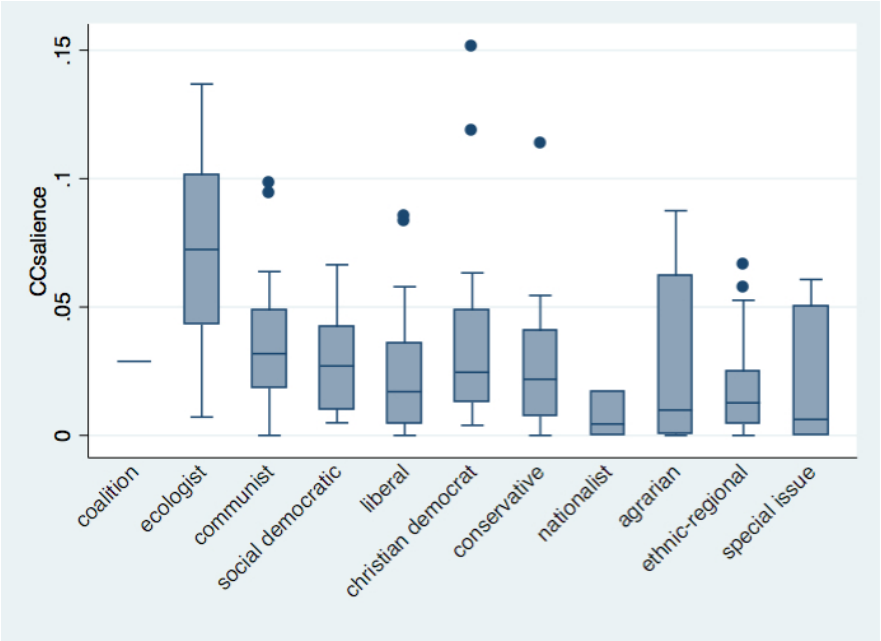

Figure 3.1. Proportion of climate change salience by party family.

Running the OLS regression to see which party characteristics help explain this variation (clustering the standard errors around country membership), we get the following results.

The model examining the effect of left-right ideology, economic and policy preferences, size and strategic incentives, and incumbency constraints on levels of climate change salience is significant, $F(4, 17) = 5.37$ $p<.01$, and accounts for 12% of the variation in climate change salience (R^2). Given that we are only examining the effect of party characteristics, this is a fairly strong result and demonstrates the importance of such features in explaining variation in parties' climate change salience. Table 3.3 shows the results of the analysis. As we can see, only the party's left-right ideology is significant. This supports the first hypothesis (H_1), namely that the attribute of being right-wing is negatively associated with levels of climate change salience. Further, these results underline the importance of parties' ideology over their economic and policy preferences, their size and strategic incentives, and their incumbency constraints.

Table 3.3. Explaining variation in parties' climate change salience.

Variable	Coefficient (SE)
Left-Right Ideology	- 0.0005 (0.0001) **
Free Market Economy	- 0.0002 (0.0004)
Size	- 0.0003 (0.0002)
Incumbency constraint	0.0065 (0.0056)
N	127
Chi-square (model fit)	5.37 **
R^2	0.1186

* p<.05 **p<.01 ***p<.001

Note: VIF scores for Left-Right Ideology and Free Market Economy are 1.68 and 1.69 respectively, i.e. there are no problems of multicollinearity.

However, though outlier parties have been removed from the analysis, the remaining ecological parties within the dataset might be behind this strong effect of ideology. As was seen in Figure 3.1, this party family clearly had higher levels of climate change salience than the other party families. Thus to check whether the results are being overly affected by the inclusion of ecological parties in the dataset, the model was re-run excluding these parties. However, the model and effect of left-right ideology remained significant ($p<.05$), thus the model including all party families is used, and we can be confident that there is an effect of left-right ideology.

None of the other party characteristics under investigation was significant, however, meaning that Hypothesis 2 (H_2), Hypothesis 3 (H_3) and Hypothesis 4 (H_4) cannot be confirmed. The direction of two of the relationships was as predicted, however. The more in favour of a free market economy a party is, the lower its' levels of climate change salience. Similarly, size has a negative effect, meaning that the larger the party is, the lower its' levels of climate change salience. Incumbency constraints had an opposite relationship to that hypothesised, with parties in government having higher levels of climate change salience than those in opposition – perhaps because being in government forces parties to address the issue.

Lastly, as I have argued that climate change can be an issue that is substantively different from other, more traditional, environmental problems for political parties, it is necessary to examine whether these results for climate change salience are substantively different from environmental salience more generally. As such, the analysis is rerun using the original environmental CMP code[9], in order to examine whether the results differ between the different issues. The results of the analysis can be seen below in Table 3.4.

[9] *per501*

Table 3.4. Explaining variation in parties' environmental salience.

Variable	Coefficient (SE)
Left-Right Ideology	- 0.0325 (0.0392)
Free Market Economy	- 0.0923 (0.1594)
Size	- 0.0003 (0.0425) *
Incumbency constraint	0. 3664 (1.0143)
N	127
Chi-square (model fit)	4.30 *
R^2	0.0728

* p<.05 **p<.01 ***p<.001

Table 3.4 shows that the model is in fact significant (F (4, 17) = 4.30 p<.05), though less so than when applied to climate change salience. Importantly, left-right ideology is not significant in explaining the variation in environmental salience, and only size is (marginally) significant in doing so. These differences in result thus point towards the two issues having different incentives for political parties.

3.4. Discussion

Climate change is the most complex global commons problem humanity has ever faced. Political parties are key to solving the issue, thus it is important to understand why political parties are more or less positive towards taking action on climate change and making it a more or less prominent issue. Overall, this chapter reveals that mainstream parties have not made climate change a salient issue. This result feeds into the wider literature on the adaptability of parties to new issues. One of the prime democratic functions of political parties is to articulate and represent the interests existing within a society. Whereas the economic cleavage has provided the basic framework for party competition since the formation of mass party systems (Lipset and Rokkan 1967), the increasing salience of post-materialist and cultural

issues such as climate change reflects the changing issue agendas of advanced industrial societies, where traditional class-based alignments are being replaced by value-based ones (Inglehart 1990, Dalton 2009). The emergence of climate change thus 'provides an opportunity to track how party systems change in response to a new programmatic challenge' (Dalton 2009: 171).

Two competing hypotheses have been propounded in this respect. One states that environmentalism and climate change presents a new political dimension orthogonal to the traditional economic one, and that existing parties will struggle to address this new issue. The second hypothesis argues that environmentalism and climate change are gradually being incorporated into the established left/right party alignment (Dalton et al. 1984, Knutsen 1987, Kitschelt 1989, Dalton 2009). If the former hypothesis is correct and the separation between the economic and environmental dimensions persists, this would imply that contemporary party systems are struggling to reconcile these conflicting political dimensions. If the latter hypothesis is correct, however, and climate change is largely being integrated into the pre-existing party structure, this would either suggest that the initial challenge was overstated, or that democratic party systems display an impressive ability to integrate alternative political frameworks (Dalton 2009: 162).

Although the findings of this chapter certainly do not confirm the first hypothesis, i.e. that the environmental dimension is orthogonal to the traditional economic one, they do not provide overwhelming support for the second either, i.e. that the issue is being successfully incorporated into the established left/right party divide. Mainstream parties have indeed largely incorporated the issue of climate change into their programmes. Moreover, the irrelevance of a party's economic and policy preferences (H_2), its' size and strategic incentives (H_3), and incumbency constraints (H_4) in explaining the variation between the parties provides

countervailing evidence to the first hypothesis that climate change is an orthogonal and incompatible dimension to the traditional economic one. Larger mainstream parties presumably do not automatically shy away from making climate change a prominent issue, and neither does a strong commitment to a free market economy, or being in government. However, it would also be a stretch to argue that a mean of 3.3% of manifestos devoted to climate change indicates that mainstream parties have embraced or politicised the issue. Given the seriousness, scale and urgency of the problem, one would expect larger proportions of manifestos to be devoted to the issue.

The low proportion of manifestos devoted to the issue of climate change could, however, be the result of the CMP dataset's conservative coding scheme, whereby quasi-sentences in the manifestos are coded into one – and only one – of the 56 standard categories. In other words, statements that are related to climate change (in that they would have a strong mitigation or adaptation benefit, for example) might instead be coded as being about 'technology and infrastructure' or 'market regulation' if this is the most obvious meaning of the statement. Only statements that are explicitly about 'green' policies are coded as such, providing a conservative measure. Overall, however, the findings of the chapter show that the jury is still very much out on the adaptability of parties to new programmatic challenges.

The chapter has also revealed that although the majority of parties of both the left and the right incorporate climate change into their political programmes to a limited extent, important differences remain. The fact that left-right ideology is more important than any other party characteristic in explaining these differences points towards the partisan nature – as opposed to the valence nature – of the climate change issue. A valence issue is a 'consensus issue' where the whole electorate is in agreement on the desired outcome, and parties thus only have one position on it. As

such, party competition is structured around performance (i.e. parties debate who will be the best or most efficient party to deal with the issue) rather than around 'positions' which involve tradeoffs (Stokes 1963). However, recent research has begun to question the valence status of the environment, and climate change in particular (e.g. Pardos-Prado 2012), with research finding significant differences between parties (e.g. Carter 2013, Carter and Clements 2015) and Gemenis et al. (2012) finding that some parties (particularly the radical right) take explicitly anti-environmental positions. This literature also feeds into the growing literature on party polarisation on climate change (e.g. Murillo and Martinez-Gallardo 2007, Dunlap and McCright 2008, Kim et al. 2013, Mansbridge et al. 2013, Tranter, 2013, Dunlap et al. 2016). The findings of this chapter consequently feed into the valence debate. The partisan differences in levels of climate change salience and the significance of left-right ideology in explaining the variation tentatively lend support to the argument that climate change is not a valence issue.

Moreover, the fact that left-right ideology was insignificant in explaining the variation in environmental salience underlines how the two issues can in fact be substantively different issues with different incentives for political parties. Although the models for both climate change- and environmental salience were significant, the latter was less so. Further, it is perhaps unsurprising that size was significant in explaining variation in environmental salience, as the issue remains somewhat on the fringe of the political mainstream and as such there is an incentive for the 'political losers' to pick it up. The significance of left-right ideology in explaining variation in climate change salience, however, points towards the issue challenging the core values of a party, as opposed to it merely relating to a party's position within the party system (and consequent strategic incentives). Whereas more traditional environmental issues can be considered 'valence issues' as the benefits of addressing

them often accrue to the current and national population (for example improved air or water quality), climate change challenges parties to prioritise long-term (and often 'radical') goals over short-term gains, and to altruistically think of people other than their electorates (whether people in other countries or future generations). The different results for the analyses of climate change and environmental salience thus reveal a weakness of the CMP coding scheme, and the need for more data examining the relationship between political parties and climate change specifically. The empirical contribution of this chapter is one step in that direction.

Lastly, the relevance of left-right ideology in explaining the variation in parties' climate change salience identified in this chapter and the partisan nature of the issue highlights the importance of political parties and party politics in making sense of the comparative climate policy puzzle. If left-right ideology is more important than parties' economic and policy preferences, their size and strategic incentives, and their incumbency constraints, this could indicate that political parties and partisan theory is an important obstacle or catalyst to action on climate change.

3.5. Limitations of the analysis and avenues for future investigation

The chapter has found that left-right ideology is significant in explaining the variation in the salience that parties attribute to climate change. However, it should be noted that left-right ideology is a broad, multifaceted and contested concept (e.g. Franzmann, 2015), and that the issue of climate change presents a dual challenge for parties (i.e. it entails profound market intervention as well as an element of altruism). The latter feature of the issue, namely that acting on climate change incurs costs that might produce greater global benefits relative to national benefits, might be opposed equally by parties to the far left and the far right of the political spectrum (e.g. left-wing nationalist and right-wing nationalists). Thus although social and economic

features of parties' left-right ideology usually correspond, there are important exceptions. As such, further research is required to unpack the various elements of left-right ideology (for example to identify whether social or economic characteristics are more important in explaining the outcome) and also to pinpoint which feature of the climate change issue is more significant in explaining the outcome. If future research identifies the altruistic element of the climate change issue as challenging the core values of a party, it might also be useful to examine whether there is a need to introduce a 'nationalist versus cosmopolitan' dimension to explain the variation, which cuts across the left-right divide. Furthermore, we do not know whether mainstream left-wing parties respond more strongly to the issue of climate change than mainstream right-wing parties due to ideological 'ease', or whether it is simply due to stronger party competition from parties further to the left.

A second worthwhile avenue of future investigation would be to test the findings of this chapter in a larger multi-level analysis to compare the relative importance of party characteristics in comparison to country-level characteristics – such as the party- and electoral system, the institutional governance system within which the parties operate, voter preferences, and the presence of fossil fuels – and to explore the interactions between the two. This would allow us to examine whether the main barrier to politicising and addressing climate change lies with political parties themselves or their electorates, or with country- and institutional features, or in the interaction of the two. Given that data-limitations leave only eighteen countries for analysis in this thesis, and particularly given the amount of predictors needed to test the hypotheses of such a multi-level analysis, our sample size naturally makes power an issue for conducting such an analysis in this case. There are too few countries at the second (i.e. country) level in order for a multi-level model to yield unbiased results (see Stegmueller 2013). However, the effect of country

characteristics is analysed separately in the next chapter, and the interplay between party and country characteristics are examined in more detail through the comparative case study in Chapter 7.

Likewise, it would be useful to explore the relationship between parties' climate change salience and public concern, i.e. whether public opinion influences political parties and their climate change platforms, or whether the parties themselves shape public opinion on the issue by providing cues for the electorate. The former relationship, i.e. the extent to which public concern influences political party behaviour on climate change, is explored in Chapter 6.

3.6. Conclusion

As was outlined in Chapter 2, both the comparative climate policy literature and the party politics literature lack an understanding of why mainstream parties embrace the issue of climate change and make it a salient issue. This chapter has therefore contributed to both these bodies of literature by examining which party characteristics incentivise parties to make climate change a more or less prominent issue. Overall, the chapter has revealed that mainstream parties have not made climate change a very salient issue, questioning the adaptability of parties to new programmatic challenges. Further, although mainstream parties of both the left and the right have been found to be incorporating climate change into their political programmes to a limited extent, significant differences remain. The chapter has found that left-right ideology is more important than any other party characteristic in explaining the variation in climate change salience. This underlines the importance of ideology over economic and policy preferences, size and strategic incentives, and incumbency constraints, and points towards the partisan (as opposed to the valence) nature of the climate change issue. Moreover, the different results for the analyses of

climate change and environmental salience respectively point towards them being substantively different issues with different incentives for political parties, and lends further support to the argument that climate change is not a valence issue. These findings reveal a weakness of the CMP dataset, and the need for more data examining the relationship between political parties and climate change specifically. The novel measure of parties' climate change salience presented in this chapter is a significant empirical contribution to this effect. However, the chapter also underlined the need to further unpack the impact of ideology on parties' responses to climate change, and the need to compare the relative importance of party characteristics to country characteristics and to examine the interaction between the two. The next chapter takes one step in this direction, by examining the effect of various institutional features on party agreement across eighteen OECD countries.

Chapter 4: Explaining variation in party agreement on climate change across eighteen OECD countries – A fuzzy set analysis

Introduction

The previous chapter examined why some parties are more positive towards climate change and have higher levels of salience on the issue than others, examining the effect of party characteristics. This chapter shifts the focus onto country characteristics, examining why we can observe smaller or larger differences in such support and salience between parties. In other words, why is there cross-party consensus on climate change in some countries whilst there is party polarisation in others? As was argued in Chapter 1, the long-term character of climate change warrants commensurately long-term investments and policies to address the issue. Such investments and policies consequently need continued – and thus bipartisan – support for their survival and success. Cross-party consensus on climate change measures exists in several countries, and in some instances even amounts to a 'competitive consensus' whereby no party can be seen *not* to be supporting action (Carter and Jacobs 2014), yet in some countries parties have polarised over the issue. As was outlined in Chapter 2, a growing literature highlights increasing party polarisation on climate change in countries such as Australia, Canada and the US, as well as its detrimental effects on policy and communication (e.g. Murillo and Martinez-Gallardo 2007, Dunlap and McCright 2008, Kim et al. 2013, Mansbridge et al. 2013, Tranter 2013). However, empirical literature explaining variation in party agreement on climate change is scarce, and this is especially the case for comparative work. This chapter therefore aims to fill this gap in the academic literature, by

systematically analysing the determinants of cross-party consensus and polarisation on climate change.

In order to address this question, several variables will be examined for their relevance in shaping party agreement on climate change. As highlighted in Chapter 2, the strength of fossil fuel interests in a country, the number of veto points, the institutional governance system, and the electoral system have all been identified as key explanatory factors as to why states have varying ambitions on climate change. The impact that these four factors have on party agreement on climate change will therefore be investigated across eighteen OECD countries. These four factors have been chosen as the fsQCA analysis and sample size set a limit on the amount of variables that can be tested (see section 4.2.), and the remaining factors outlined in Chapter 2, i.e. public opinion and path dependence, do not lend themselves to be translated into fsQCA terms. These factors will, however, be examined through the comparative case study in subsequent chapters.

The first section of the chapter surveys the theoretical backdrop for the investigation – and in particular the ways in which the comparative climate policy literature and party politics literature interact to help explain the variation in the dependent variable – whilst the second section explains the intricacies of the fsQCA methodology. The third section outlines the ways in which the variables have been conceptualised and operationalised. The findings and discussion are presented in the fourth and fifth sections respectively. The sixth section discusses the caveats of the analysis and avenues for their remedy, before the final section concludes.

Whereas recent research establishes a negative relationship between fossil fuel dependency and a country's climate ambitions (see Lachapelle and Paterson 2013, Fankhauser et al. 2015) – and so one would expect this to be a key factor explaining party polarisation on the issue – the analysis in this chapter demonstrates

that the presence of fossil fuel interests in a country will only have a polarising effect on parties if combined with multiple veto points, pluralist institutions and a majoritarian electoral system. However, fossil fuel interests will not have a polarising effect if combined with fewer veto points and corporatist institutions. Countries with few veto points, corporatist institutions, and a proportional electoral system experience high levels of cross-party consensus on climate change. The findings of the chapter thus challenge the common assumption that consensus will automatically be difficult in states with fossil fuel dependency. Rather, it demonstrates that the institutional context is critical, as it moderates the effects of fossil fuel interests and shapes the political decisions of parties.

4.1. Theoretical arguments for variation in party agreement on climate change

Although explored in greater detail in Chapter 2, it is beneficial to briefly overview the rationale for selecting each of the four conditions for the fsQCA analysis, and importantly to outline the ways in which they might interact and affect parties differently.

It can be difficult for parties in fossil fuel producing or exporting states to create consensus on cutting back on such production or exports, as it entails expensive and painstaking adaptation to other sources of energy or revenue. Parties might be reluctant to suggest or endorse policies that would see employment fall (e.g. in the energy sector, particularly in their home constituencies), taxes rise, or valuable funders disappear (e.g. fossil fuel companies). It might also be hard to argue for such changes if people in developed states believe that emissions reductions will be 'cancelled out' by increased emissions from developing countries. These arguments become even harder to defend in countries where climate scepticism is widespread. As such, it is perhaps unsurprising that recent research establishes a

negative relationship between a country's fossil fuel dependency and its climate change ambitions (Lachapelle and Paterson 2013, Fankhauser et al. 2015).

As outlined and demonstrated in the previous chapter, the above dilemmas are likely to be more prevalent for right-wing than for left-wing parties, as conservative parties are ideologically more averse to supporting regulatory climate policies that intervene in markets than left-wing parties (McCright and Dunlap 2011), and they are more likely to express system-justification tendencies (Feygina et al. 2010, Fielding et al. 2012). Right-wing parties also face weaker party competition on the issue, as this is more often found on the left hand side of the political spectrum (Rohrschneider 1993, Spoon et al. 2014). As such, there is an expectation that the presence of fossil fuel interests will negatively impact the likelihood of right-wing parties embracing climate change more so than left-wing ones, thus fuelling polarisation.

However, if the presence of fossil fuel interests is polarising, how do we then explain the strong cross-party consensus on climate change in fossil fuel producing and exporting states such as Norway and the Netherlands? As such, we need to ask which mechanisms allow fossil fuel interests to influence right-wing parties more in some countries than in others. It is argued that the role of veto points is relevant in this respect. In federal countries such as Australia, Canada and the US there is a high prevalence of institutional veto points as power and authority is diffused horizontally (Tsebelis 2000, 2002). As reviewed in Chapter 2, a high prevalence of veto points reduces the probability of overcoming the political status-quo (Immergut 1990: 395), and overcoming interregional differences of interests and values to create consensus on climate change becomes more difficult. Carbon-intensive industries are often regionally concentrated, thus politicians in federal countries may resist supporting national climate goals that would harm the business interests or employment levels in

their constituencies. Veto points thus make it harder for the national party leadership to get regional politicians to toe the party line, fuelling polarisation, and make it harder for countries to ramp up policy ambition on climate change (Harrison and Sundstrom 2010, Brown 2012, Harrison 2012). As Madden (2014: 571) points out: 'Each veto point acts as a barrier for policy adoption by increasing the number of actors whose consensus is necessary for policy adoption. These actors are also likely to have divergent preferences, thus further raising the consensus threshold needed for adoption.' Though veto points presumably make left-wing politicians just as averse to supporting climate change measures as their right-wing counterparts, there are several reasons to believe that veto points will have a stronger impact on right-wing parties. As already mentioned, we have good reason to believe that right-wing parties will be less supportive of climate change policies than left-wing parties. Veto points arguably amplify this tendency, by making the balancing act between market intervention and non-intervention more acute for politicians with veto power, and importantly by creating more instances for fossil fuel lobbies to target right-wing politicians. Furthermore, given the assumption that right-wing parties are more conservative, the status-quo bias that veto points create might strengthen conservatives' system-justification tendencies. Importantly, the differing location of the median voter across constituencies or states might mean that right-wing politicians are impacted more strongly by fossil fuel interests when there are multiple veto points. As was reviewed in Chapter 2, in situations where parties have to gain votes in multiple constituencies and these constituencies differ in the location of their median voter, a risk-averse party may actually opt for non-centrist positions that make it confident of winning certain constituencies rather than taking moderate positions that may render it more widely competitive, but that do not give it a decisive advantage in any given set of constituencies (Austen-Smith 1986, Grofman

et al. 2000). Right-wing politicians might thus be catering to the non-centrist vote of fossil fuel dependent states in order to secure the vote there, thereby increasing polarisation. Thus we would expect fossil fuel interests to have a larger negative impact on right-wing parties in countries with multiple veto points.

However, although multiple veto points help explain the persistence of the status-quo and a lack of cross-party consensus on climate change, they do not necessarily explain why climate change has become so *highly* polarised in countries such as Australia, Canada and the US. The effects of fossil fuel interests and veto points may thus be mediated by another condition. In Chapter 2, a country's institutional governance system was identified in the comparative climate policy literature as having an effect on the environmental and climate change ambitions of both parties and countries (Scruggs 1999, Dryzek et al. 2002, Bernhagen 2008, Lachapelle and Paterson 2013), from which we can hypothesise the direct effects such systems have on party agreement. Pluralist systems, being characterised by a plurality of agents competing to influence the climate change debate in order to protect or 'win' resources for their position, tend to disproportionately benefit powerful business interests due to their organisational strength, structural privilege and informational advantages (Lindblom 1977, Griffiths et al. 2007). It is therefore likely that right-wing parties will be heavily influenced by fossil fuel interests in such systems, making the creation of cross-party consensus on climate change harder to achieve. In corporatist systems on the other hand, which are characterised by high levels of institutionalised interest-representation and consultation, parties are more likely to interact with a broader range of actors (such as ENGOs) and not just with dominant business interests. Such broad and institutionalised consultation and interaction thus dampens the effect of a strong fossil fuel lobby and provides a counter-balance to such interests. Therefore the polarising effect of fossil fuel

interests and veto points is likely to be dampened in corporatist systems, whilst it is likely to be strengthened in pluralist ones.

The electoral system is also expected to have an impact on party agreement on climate change. As outlined in Chapter 2, lower electoral thresholds and better opportunities for green parties to gain entry into parliament mean that PR systems tend to amplify the voices of a minority of voters for whom climate change is a priority (Harrison and Sundstrom 2010). This increases the issue's salience and thus the possibilities for party competition and a 'competitive consensus'. Similarly, the lower electoral threshold usually entails a larger number of parties, and so we would expect higher levels of party competition on the issue. Moreover, PR systems often entail coalition governments and so a more consensual pattern of democracy (Lijphart 2012). Parties for whom climate change is important will bargain to secure concessions on it, and coalition partners will often refrain from negative campaigning on the issue to secure cooperation (Walter et al. 2014). Thus PR systems are likely to increase the propensity to which parties are positive towards climate change action, facilitating cross-party consensus. Majoritarian systems, on the other hand, are characterised by fewer and larger 'catch all' parties. One might therefore hypothesise that majoritarian systems are beneficial for the creation of cross-party consensus on climate change, as large 'catch all' parties usually seek to attract the median voter, and climate change is arguably a valence issue most voters are (at least slightly) concerned about. However, as was outlined in Chapter 2, parties in a two-party system may in fact be motivated to present divergent policies in order to deter entry by new competitors (Palfrey 1984, Callander 2000). Furthermore, when overall electoral or parliamentary majorities are frequent and the need to appease coalition partners unnecessary, the chances of creating or sustaining cross-party consensus are far smaller than in PR systems, and depend far more on public

opinion and the general salience of the issue in the country at the time (as can arguably be seen to some extent in the UK – see Carter and Clements 2015). Lastly, as was discussed in the previous chapter, the extent to which climate change is in fact a valence issue as opposed to a partisan one is becoming increasingly questioned (e.g. Gemenis et al. 2012, Pardos-Prado 2012). As such, we expect there to be less party agreement in majoritarian systems than in PR systems.

The above therefore suggests that variation in party agreement on climate change is explained less by 'degreeism' of single variables (Sartori 1991: 248) than by the simultaneous presence of conditions that qualitatively distinguish between different states. Fossil fuel interests presumably need to be combined with veto points and pluralist institutions in order to have a polarising effect. In contrast, we expect countries without fossil fuel interests, without many veto points, and with corporatist institutions and a PR electoral system to experience cross-party consensus on climate change. The above thus demonstrates the need for a method that can deal with causal conjunction – the interaction of different variables (or conditions) – and a medium number of cases. Fuzzy set qualitative comparative analysis – fsQCA – is such a method, as outlined in the next section.

4.2. The fsQCA method

Qualitative Comparative Analysis (QCA) is a burgeoning family of techniques that uses Boolean algebra to implement principles of comparison normally used by scholars engaged in qualitative research to a more quantitative approach. Qualitative research typically examines only a few cases at a time, allowing researchers to address multiple aspects and examine how such factors fit together and interact. By formalising the logic of qualitative analysis, QCA therefore makes it possible to

bring the logic and empirical intensity of the qualitative approach to quantitative and variable-oriented research that uses more than just a handful of cases. The method thus occupies a position midway between qualitative and quantitative social research. However, QCA contrasts to methods based on correlations that focus on tendential relationships, or 'net effects' (such as regressions). Instead, it tests conditions in combination, rather than merely in isolation (Schneider and Wagemann 2012: 296-297).

QCA is based on membership scores of cases in sets, and these set-relations are interpreted in terms of sufficiency and necessity. A necessary condition (or configuration of conditions) will be present in all configurations that result in the outcome, whilst a sufficient condition (or configuration of conditions) will always result in the outcome, but may not be present in all configurations that do so (this is because outcomes can come about in different ways – 'equifinality'). However, as Ragin (2000: 222) warns: 'when causation is complex, no single cause may be either necessary or sufficient'; for in social science investigations it is likely that conditions may have to be considered in combination (rather than in isolation) in order to isolate how they influence an outcome.

In order to find such set relations of necessary or sufficient conditions (or configurations of conditions) for an outcome, truth tables and rules of logical minimisation are used. A truth table (also known as a 'property space' elsewhere in social science literature – see Kvist 1999) is a mathematical table used in logic, specifically in connection with Boolean algebra, to look for causal combinations that are necessary or sufficient for an outcome. A truth table sorts cases by the combinations of causal conditions they exhibit, and all logically possible combinations that could lead to the outcome are considered. The total number of possible configurations is thus expressed as 2^k, where k denotes the number of sets in

the study. Thus two causal conditions result in four logically possible configurations, three conditions lead to eight logically possible configurations, and so on. The exponential increase in the number of possible configurations is the result of the role of negation, i.e. the negative or opposite of each causal condition (strong/weak membership in a set) is also considered. Due to the large number of theoretical combinations of conditions and limited diversity in the data, certain figurations may not be found empirically – so called 'logical remainders' (see Ragin 2000: 107, 198). However, in QCA this is not as significant a problem as in regression analysis where there is no means of isolating logical remainders and removing them (meaning that assumptions are made which are not reflected in reality or in the data). Thus given that the units of analysis in QCA are causal configurations as opposed to independent variables, the configurations that are not observed empirically can be removed from the investigation if desirable.

Once variables are operationalised and the data tabulated, the QCA software (Ragin et al. 2006) identifies the causal configurations that are necessary and sufficient for the outcome. The solution terms employ the principles of Boolean logic, whereby '*' denotes *and*, '+' denotes *or*, and '~' denotes *negation*. The solution also produces scores for both the consistency and the coverage of each causal configuration. 'Consistency' refers to the degree to which the cases sharing a particular causal configuration (e.g. both strong fossil fuel interests *and* multiple veto points) result in a given outcome (e.g. party polarisation on climate change). Consistency thus measures the extent to which a solution or solution term is a subset of the outcome. However, perfect consistency is almost impossible in the social sciences due to the sheer number of potential variables involved in determining an outcome. The benchmark recommendations by the literature for the consistency-threshold are thus 0.90 for necessity and 0.75 for sufficiency. A consistency level

below this would suggest a weak relationship between the configurations and the outcome (Ragin, 2008: 46). 'Coverage' denotes the extent to which the solution accounts for empirical instances of an outcome (see Ragin, 2008: 44). However, a configuration with a high level of consistency (e.g. above 0.75) may have a low coverage value, as significant configurations may only be found in a small number of cases. This is similar to having a small yet significant r^2 in regression analyses, or as Ragin states: 'just as it is possible in correlational analysis to have a significant but weak correlation; it is possible in set-theoretic analysis to have a set relation that is highly consistent but low in coverage' (2008: 44). Coverage is divided into two measures: one is the 'raw coverage' which shows the percentage of all the cases in the outcome which are covered by a single sufficient path of an equifinal solution term, whilst 'unique coverage' only shows the percentage of cases that are uniquely explained by that solution (Schneider and Wagemann 2012: 332-334).

The particular subfamily of QCA used in this thesis is fuzzy set qualitative comparative analysis (fsQCA). This particular methodology was developed by Ragin (2000) as a response to the loss of information that the dichotomisation of conditions in traditional QCA produced (Ragin 1987). Whereas traditional QCA simply awards a case a score of '1' or '0' depending on whether it has an attribute or not, fsQCA grades coding between 0-1, thus allowing for nuances in relationships, or rather partial membership or non-membership in a set as opposed to a black-and-white distinction. However, the use of fuzzy sets – though commonly used in other scientific disciplines such as mathematics – is still relatively unfamiliar within the social sciences. The term 'fuzzy' also leads to some confusion, or perhaps loss of reputation, as people conflate non-sharp *conceptual* boundaries with imprecise *empirical* information. Fuzzy set analysis is, however, based on objective empirical data, but is complemented with the researchers' expert knowledge, for example in

locating qualitatively different 'anchors' in the data (i.e. locating where an increase or decrease in a measure means the condition is something qualitatively different). For example, in fsQCA analysis one might award Norway an EU-membership score of '0.6' as opposed to a '0' based on various indicators, as it is not a full voting member of the EU yet nor is it a full non-member in the same way that, say, the US is. On the whole, Norway is more of a member than not due to its inclusion within the European Economic Area (EEA), thus justifying a score above 0.5 (the score differentiating between members and non-members of a set). However, given that continuous data between the values of 0 and 1 can be used in fsQCA analysis, it can be hard to differentiate between qualitatively different cases. Where on the scale from low-high GDP per capita, for example, does a country become classified as 'wealthy'? As such, fsQCA can and should be complemented by researchers' expert knowledge. In defending the researcher's subjective assignment of anchors within the data, Verkuilen (2005: 470) argues:

> There is nothing inherently wrong with direct subjective assignments, although there are better or worse ways of doing it. In many circumstances, particularly in more macro-scale areas such as sociology, political science, or economic history, the likely error in subjective assessment is less than those found in seemingly objective indicators, which may have substantial bias.

Based on data and the location of the qualitative 'anchors', scores are then awarded to each country for the outcome and conditions under investigation. A truth table is then generated by the fsQCA software (fsQCA2.5), and the same software also makes multiple comparisons of configurations through computer algorithms. The goal is to represent – in a parsimonious way – the information in the truth table

regarding the different combinations of conditions that produce, or are associated with, a specific outcome.

4.3. Conceptualisation and operationalisation of the variables

fsQCA scales can be continuous or categorised (Ragin 2000: 292). There is one outcome variable – the main dependent variable of the thesis – and four causal conditions – or independent variables – to be coded in this investigation, and they have all been coded using continuous scales. The raw data can be seen in Table 4.1, and the calibration of the outcome and the four causal conditions can be seen in Table 4.2.

4.3.1. The outcome: party agreement on climate change

The outcome under investigation is variation in party agreement on climate change. However, as reviewed in Chapter 2, there is limited data available allowing us to examine the positions of parties on the issue of climate change. Building on the same intuition and CMP data as in Chapters 2 and 3 (see section 2.1.2. and section 3.2.), variation in party agreement on climate change is conceptualised as the inter-party difference in issue prioritisation (climate salience). To recap, the intuition is that if a party cares about climate change and thinks it is an important problem, it will presumably make it a salient issue in its manifesto. If a party is not concerned with climate change, it will presumably not make it a salient issue in its manifesto. Thus in countries where parties have similarly high levels of salience, we can assume there is cross-party consensus on the issue, whereas in countries where there is a large difference in levels of salience between parties, we can assume they are more polarised over the issue.

Table 4.1. Raw data on the outcome and the four causal conditions.

Cases	Outcome	Causal Conditions			
Country	Party agreement (Diff. in salience %)	Fossil fuel exports (Bill. M^3 Nat. gas equiv.)	Veto points (POLCON)	Institutional governance system (Lijphart, 2012)	Electoral system (EffN)
Sweden	3.351	262.28	0.768031	0.42	4.54
Norway	0.054	1755.40	0.772031	0.38	4.07
Finland	2.386	144.40	0.774697	0.67	5.83
Belgium	0.575	448.41	0.892608	1.33	8.42
Netherlands	0.153	2240.77	0.7783	1.00	6.74
Luxembourg	1.551	0.05	0.766698	0.88	3.63
France	2.227	469.44	0.868222	2.75	2.83
Italy	3.813	642.87	0.757364	2.08	3.47
Spain	1.299	412.29	0.83628	3.04	2.6
Portugal	0.344	168.00	0.748031	2.62	3.13
Germany	0.089	450.10	0.847357	0.88	4.83
Switzerland	4.225	7.59	0.854038	0.88	5.57
UK	0.794	1185.43	0.745365	3.08	2.57
Ireland	1.031	26.12	0.756031	2.42	3.52
USA	2.198	2996.20	0.854173	2.88	1.99
Canada	4.327	2950.56	0.845482	3.17	2.41
Australia	4.725	632.56	0.846945	1.88	2.92
New Zealand	1.025	41.44	0.753365	2.71	2.98

The choice is made to calculate the difference between the two opposing mainstream parties' climate change salience (calculated as a proportion of the overall manifesto content), which is calculated and calibrated in Table 4.1 and Table 4.2. respectively. A mainstream party is defined as the traditionally largest party either side of the relevant political cleavage in the country (ideological/cultural/linguistic).

Table 4.2. Data matrix of the eighteen cases: Calibrated scores for the outcome and the four causal conditions.

Cases	Outcome	Causal conditions			
Country	Party polarisation	Fossil fuel exports	Veto points	Institutional gov. system	Electoral system
Sweden	0.00	0.20	0.15	0.00	0.39
Norway	0.00	1.00	0.18	0.00	0.32
Finland	0.49	0.11	0.2	0.00	0.59
Belgium	0.11	0.35	1.00	0.34	1.00
Netherlands	0.00	1.00	0.22	0.22	1.00
Luxembourg	0.32	0.00	0.14	0.00	0.25
France	0.46	0.37	1.00	0.85	0.13
Italy	0.80	0.51	0.00	0.61	0.23
Spain	0.80	0.32	0.62	1.00	0.09
Portugal	0.06	0.13	0.00	0.80	0.18
Germany	0.00	0.36	0.69	0.18	0.44
Switzerland	0.89	0.00	1.00	0.18	0.55
UK	0.15	0.94	0.00	1.00	0.09
Ireland	0.20	0.00	0.07	0.73	0.24
USA	1.00	1.00	1.00	0.90	0.00
Canada	1.00	1.00	0.68	1.00	0.00
Australia	1.00	0.51	0.69	0.54	0.14
New Zealand	0.20	0.00	0.00	0.83	0.15

The political orientation was derived based on a combination of CMP-scores, the party's own ideological pronouncements and secondary sources. Although some multi-party systems do not always have an obvious mainstream left and right party, the majority of countries do (or there will be a dominant party amongst a coalition of smaller parties). Grouping left and right parties together as 'blocks' and calculating the differences between them would include parties further to the left and right (e.g.

green or radical right) and would therefore skew the result by appearing to exaggerate the degree of polarisation that exists. Similarly, weighting saliency scores for each party by their electoral or parliamentary size and computing a 'block average' would also misrepresent political reality and skew the result, as this would award more emphasis to the saliency scores of dominant parties, increasing the apparent polarisation. However, the opposing party to the dominant party is equally important for creating consensus despite it potentially having as much as 10% less of the vote. The two opposing mainstream parties are thus chosen, as these are most crucial in ensuring stable cross-party consensus, and makes for a more parsimonious and uncomplicated model. An overview of the mainstream parties chosen to calculate the dependent variable and the relevant election year is shown in Table 4.3.

Countries with high levels of party polarisation on climate change were awarded a score of '1' (in this case Australia, Canada and the US), and countries with strong cross-party consensus were awarded a score of '0' (Sweden, Norway, Netherlands and Germany). Once these 'anchors' were awarded, the states in between these values were graded on a continuous and linear scale between the two.

However, from the raw data in the Table 4.1 we can see that Sweden apparently has high levels of polarisation, whilst the US has medium levels of polarisation. In the case of Sweden, this is a result of using the two opposing mainstream parties as opposed to comparing 'blocks' of parties. If the latter measure had been used the results would be opposite. Interestingly, the apparent polarisation in Sweden occurs because the mainstream right-wing party has higher levels of climate salience than the mainstream left. However, given that the parties to the left of the mainstream left-wing party have similarly high levels of salience to the mainstream right – and, importantly, given solid secondary evidence (e.g. Zannakis

Table 4.3. Mainstream parties used to measure party agreement on climate change and the relevant election year.

Country	Mainstream Left	Mainstream Right	Election
Sweden	Social Democratic Labour Party	Moderate Coalition Party	2010
Norway	Norwegian Labour Party	Conservative Party	2009
Finland	Finnish Social Democrats	National Coalition	2009
Belgium	Socialist Party Different	New Flemish Alliance	2010
Netherlands	Labour Party	People's Party for Freedom and Democracy	2010
Luxembourg	Socialist Workers' Party of Luxembourg	Christian Social People's Party	2009
France	Socialist Party	Union for a Popular Movement	2012
Italy	Democratic Party	People of Freedom	2013
Spain	Spanish Socialist Workers' Party	People's Party	2011
Portugal	Socialist Party	Social Democratic Party	2009
Germany	Social Democratic Party of Germany	Christian Democratic Union /Christian Social Union	2009
Switzerland	Social Democratic Party of Switzerland	Swiss People's Party	2011
UK	Labour Party	Conservative Party	2010
Ireland	Labour Party	Fine Gael	2011
USA	Democratic Party	Republican Party	2012
Canada	New Democratic Party	Conservative Party of Canada	2011
Australia	Australian Labor Party	Liberal Party of Australia	2010
New Zealand	New Zealand Labour Party	New Zealand National Party	2011

2009) – we can confidently override the quirk of the measure and award Sweden a score of '0'.In the US, the lack of apparent polarisation is a result of the low level of climate change salience in the country more generally. Though climate change is famously polarised in the US, such polarisation might have resulted in the issue

falling down the political agenda for both parties. Given solid secondary evidence, however, the US is also subjectively awarded a score, in this case of '1'. Ragin (2000: 150) argues that researchers should adjust and award set-membership scores based on a combination of the expert's theoretical knowledge and empirical evidence. Given that Sweden and the US are such clear cases of '0' and '1', subjectively awarding them such scores is less problematic than if they were somewhere in between (as subjectively placing countries on a continuous scale would not be easy or transparent). Although the fsQCA literature justifies such an approach, arguing that the researcher should not be purely led by data in assigning scores, these two results should nonetheless make us aware of the limitations of the conceptualisation of the dependent variable, or at least for certain countries, groups of parties or periods of time. This issue is also discussed in the last section of the chapter (section 4.6.).

4.3.2. Condition one: fossil fuel interests

To measure the strength of fossil fuel interests, the amount of fossil fuel exports were calculated, and converted into one unit for comparability. Each country's exports of crude oil, refined petroleum and natural gas were drawn from the CIA's World Factbook, and coal exports were found in BP's Statistical Review of World Energy (2013). Exports are chosen as an indicator for three reasons. Firstly, it allows us to include countries that have already largely de-carbonised their domestic electricity generation (e.g. Norway). Secondly, fossil fuel companies stand to lose more from the reduction or cessation of exports as opposed to domestic production. Fossil fuel companies can diversify their activities to become domestic renewable electricity providers thus maintaining profitability. Exports, on the other hand, are less easy to replace, as renewable energy is not as easy to store or transport. Thirdly, whereas the

state usually collects taxes or revenues from all domestic electricity production – whether fossil fuel or renewable – the loss of exports means a more significant reduction in state revenues as it will not necessarily be replaced, thus entailing an added layer of incentives for exporters, states and parties to continue their use. However, as many OECD countries export fossil fuels care must be taken when coding, as there is no objective measure to distinguish between large and major fossil fuel exporters, and skewed data by coding according to extremes must be avoided. The scores for Canada, the Netherlands, Norway and the US are so much higher than the other countries that it would skew the coding. The highest score within the majority of countries – that of the UK – was therefore coded as '1', with a continuous scale to the lowest value (Luxembourg '0'). This ensures that each country's fossil fuel scores is graded in comparison to a 'large' fossil fuel exporter, the UK, rather than 'super-exporters' such as Canada and Norway, which would have skewed the majority of states towards the lower end of the scale.

4.3.3. Condition two: veto points

The second causal condition grades the different types of governance structures according to the number of veto points. These gradations were developed using the Political Constraint Index (POLCON) dataset (NSD 2011), which in turn builds on the work of Henisz (2002). The dataset codes the presence of institutional veto points, such as an additional chamber in the legislative process or the dominance of a rival party within a key feature of the legislative process. Having a high level of veto points was coded as '1' whilst having few was coded as '0'. Using the highest and the lowest scores as our 'anchors' (Belgium and the UK respectively), the other countries were graded on a continuous scale from 0-1 between the two.

4.3.4. Condition three: institutional governance system

To examine the effect of institutional governance systems, Lijphart's (2012) seminal and widely used classification of patterns of democracy is used. The classification creates a continuous measure ranging from highly pluralist countries to highly corporatist ones. Highly pluralist countries were coded as '1', whilst highly corporatist countries were coded as '0'. Using the highest and the lowest scores as our 'anchors' (Canada and Norway respectively), the other countries were graded on a continuous scale from 0-1 between the two.

4.3.5. Condition four: electoral system

To examine the effect of the electoral system, the effective number of parties (EffN) for the relevant election year is used. EffN measures the level of party fractionalisation, by counting parties weighted by their shares of votes or seats. Although EffN arguably relates more to a country's party, as opposed to electoral, system as it measures the number of (effective) parties instead of a country's electoral rules, Duverger (1951) demonstrates that the two are strongly related. Importantly, EffN is chosen as it provides both a parsimonious and comparable measure across systems that differ quite widely in their electoral rules, yet nonetheless effectively have fairly similar incentive-structures for parties. The widely used EffN-formula is based on the indices of Gallagher and Mitchell (2008), and updates for recent elections can be found on Gallagher's website. Belgium has the highest number of effective parties and is awarded a score of '1', and the US is the country with the lowest number and is awarded a score of '0'. The remaining countries were awarded continuous scores between these two anchors.

4.4. Results

Necessity and sufficiency are measured separately and given different scores. As can be expected when attempting to explain highly complex and equifinal social relationships, none of the causal conditions or configurations was found to be necessary to explain cross-party consensus or polarisation on climate change. As Schneider and Wagemann state: 'only under very peculiar empirical conditions does such an analysis of sufficient conditions also correctly reveal the presence or absence of necessary conditions' (2010: 8). The results of the test for sufficiency yield significant results, however, and will be discussed following the analysis for necessary conditions.

4.4.1. Identification of configurations that are necessary for the outcome

Schneider and Wagemann recommend considering conditions to be necessary only if their consistency scores are above 0.90 (2007: 213). As Schneider and Rohlfing argue, a consistency score of 0.90 for necessity is as close to 1 (i.e. perfect consistency) as a condition is likely to achieve when measuring and scoring empirical realities, and as such can reasonably be considered as a necessary condition (2013: 7). The scores for each of the conditions can be found in Table 4.4 and Table 4.5. Table 4.4 scores the conditions explaining party polarisation on climate change whilst Table 4.5 scores the conditions explaining its negation, i.e. cross-party consensus. As we can see, the consistency scores for all the conditions are below the required 0.90-threshold, and so should not be considered necessary in explaining the variation in our dependent variable (although operating within a majoritarian electoral system comes close to being necessary for polarisation at 0.87). Configurations of conditions could theoretically be necessary for the outcome,

but only if each of the conditions involved was individually necessary. As this is not the case, no configuration of conditions can be necessary for the outcome either.

Table 4.4. Analysis of necessary conditions for party polarisation on climate change.

Condition	Consistency	Coverage
Strong fossil fuel interests (F)	0.58	0.52
Multiple veto points (V)	0.65	0.59
Pluralism (PL)	0.67	0.51
Majoritarian system (~PR)	0.87	0.49
Weak fossil fuel interests (~F)	0.58	0.39
Few veto points (~V)	0.45	0.30
Corporatism (~PL)	0.46	0.36
Proportional system (PR)	0.36	0.43

Table 4.5. Analysis of necessary conditions for cross-party consensus on climate change.

Condition	Consistency	Coverage
Strong fossil fuel interests (F)	0.44	0.62
Multiple veto points (V)	0.34	0.50
Pluralism (PL)	0.49	0.59
Majoritarian system (~PR)	0.69	0.63
Weak fossil fuel interests (~F)	0.66	0.71
Few veto points (~V)	0.72	0.77
Corporatism (~PL)	0.59	0.74
Proportional system (PR)	0.45	0.85

4.4.2. Identification of configurations that are sufficient for the outcome

The following section outlines the analysis of causal configurations that were found to be sufficient to explain polarisation and cross-party consensus on climate change. The fsQCA-software (fsQCA2.5) provides three solutions – a complex, intermediate and parsimonious solution – based on differing assumptions regarding logical

remainders (hypothetically possible causal configurations which are not found empirically). In the current analysis, the frequency cut-off for each causal configuration was '1'; i.e. all cases used to develop the solutions were found empirically while logical remainders were excluded (see Ragin 2000: 107, 198). Of the sixteen possible causal configurations, six were logical remainders, meaning that ten possible causal configurations were found empirically. The truth table is shown below in Table 4.6, and lists each of the hypothetically possible configurations of conditions, the number of times the configuration occurred empirically, and the raw consistency of each configuration. The configurations receiving a '0' in the Number-column are logical remainders and so did not occur empirically.

For the complex solution, the fsQCA-software does not make any simplifying assumptions regarding logical remainders, thus the solution is based purely on the truth table rows with configurations that were found empirically. The intermediate solutions were in this case deemed irrelevant as they provided the same results as the complex solutions. The parsimonious solution features the fewest possible conditions and Boolean operators (such as *and* or *or*). This solution does not challenge the findings of the complex solution, but instead simplifies the findings into a shorter and 'neater' solution.

The required consistency threshold is lower when testing for sufficient conditions. Ragin (2008: 46) suggests a threshold of 0.75 in order to be confident that there is a relationship between the condition(s) and the outcome. The consistency cut-off for each of the solutions was therefore 0.75. Table 4.7 shows the complex and parsimonious solution terms for party polarisation on climate change, whilst Table 4.8 shows the complex solution terms for the opposite, i.e. cross-party consensus on climate change.

Table 4.6. Truth table.

V	F	PL	~PR	Number	Raw Consistency
1	1	1	0	3	0.920676
0	0	1	0	3	0.157171
1	0	1	0	2	0.295
1	0	0	1	2	0.120464
0	1	1	0	2	0.607368
0	0	0	0	2	0.307061
1	0	0	0	1	0.28554
0	1	0	1	1	0.247879
0	1	0	0	1	0.411772
0	0	0	1	1	0.273803
1	1	1	1	0	-
1	1	0	1	0	-
1	1	0	0	0	-
1	0	1	1	0	-
0	1	1	1	0	-
0	0	1	1	0	-

4.4.3. Sufficient configurations for party polarisation on climate change

The fsQCA software identified one solution term that is sufficient for party polarisation on climate change, i.e. a causal combination with a consistency higher than 0.75 – the complex solution term with a consistency of 0.92. Strictly speaking, the configuration is 'usually sufficient' because it has a consistency score of less than 1, but as the consistency cut-off was well above 0.75, the sufficiency of the configuration can be considered significant. The parsimonious solution term comes close to significance with a consistency-level of 0.72. As there is only one solution term, the scores for the overall solution are the same as for the individual solution (the scores for consistency, raw coverage and unique coverage).

Table 4.7. Analysis of sufficient conditions for party polarisation on climate change.

Solution	Complex solution term	Parsimonious solution term
	F*V*PL*~PR	F*V
Single country coverage	Australia, Canada, United States	Australia, Canada, United States
Consistency	0.92	0.72
Raw coverage	0.39	0.44
Unique coverage	0.39	0.44
	Solution consistency: 0.92	Solution consistency: 0.72
	Solution coverage: 0.39	Solution coverage: 0.44

Table 4.7 demonstrates that party polarisation on climate change is determined by a conjunction (*) of strong fossil fuel interests (F), multiple veto points (V) high levels of pluralism (PL) and a majoritarian electoral system (~PR). The parsimonious solution term simplifies this relationship to strong fossil fuel interests and multiple veto points being sufficient (F*V), however, this marginally fails to reach the required consistency threshold. The countries covered by both solutions are Australia, Canada and the US. These results will be explored and discussed in more detail following the examination of the sufficient conditions for the opposite of this relationship, i.e. cross-party consensus on climate change.

4.4.4. Sufficient configurations for cross-party consensus on climate change

In analysing the sufficient conditions for cross-party consensus, the fsQCA software identifies several (complex) solution terms that reach the required consistency threshold (see Table 4.8).

Table 4.8. Analysis of sufficient conditions for cross-party consensus on climate change.

Causal configuration	Raw coverage	Unique coverage	Consistency	Single country coverage
F*~V*~PL	0.23	0.04	0.83	Norway Netherlands
~V*~PL*PR	0.30	0.07	0.92	Netherlands Finland
~F*~V*PL*~PR	0.17	0.19	0.75	New Zealand Portugal Ireland
Solution consistency: 0.89		Solution coverage: 0.54		

Unlike the overall solution scores above in Table 4.7, the overall solution scores are in this case different from the individual scores, as more than one solution was generated. The solution term with the highest consistency (0.92) shows that having few veto points (~V), a corporatist system (~PL) and a proportional electoral system (PR) are in conjunction sufficient to explain cross-party consensus on climate change.

Significantly, Table 4.8 also shows two solution terms that include so-called 'paradoxes', i.e. conditions that also explain the opposite outcome (both 'polarisation' and 'consensus'). The first configuration in Table 4.8 shows that fossil fuel interests (F) is partly sufficient for 'consensus', when it was also partly sufficient for 'polarisation' in Table 4.7. Similarly, the third configuration in Table 4.8 shows that high levels of pluralism combined with a majoritarian electoral system (PL*~PR) is partly sufficient for 'consensus', when both these conditions were also partly sufficient for 'polarisation' in Table 4.7. However, paradoxes are an inevitable part of social reality and fsQCA (Cooper and Glaesser 2011). Paradoxes are possible because of equifinality (i.e. there is more than one pathway to the

outcome), and because the solutions comprise causal configurations featuring several conditions. Importantly, however, paradoxes allow us to isolate the effects of conditions. The paradox in the first configuration in Table 4.8 reveals that cross-party consensus on climate change is possible despite the presence of strong fossil fuel interests – if combined with few veto points and corporatist institutions. Similarly, the paradoxes in the third configuration in Table 4.8 demonstrate that consensus on climate change is possible despite having high levels of pluralism and a majoritarian electoral system, if combined with not having strong fossil fuel interests and having few veto points. The role of veto points should particularly be noted, as it is a 'red thread' running through all the solution terms in Table 4.7 and Table 4.8, without any paradoxes, and thus seems to be a particularly stable predictor of polarisation.

4.5. Discussion

The findings of the chapter demonstrate that the explanation for variation in party agreement on climate change is interactive. No condition was found to be necessary to explain the variation in the outcome, but the four conditions under investigation were *in conjunction* sufficient to explain party polarisation on climate change. Thus strong fossil fuel interests, multiple veto points, pluralist institutions and a majoritarian electoral system interact to create party polarisation on climate change. The consistency for this solution term was very high (0.92), and helps explain why it has been particularly challenging for parties in countries such as Australia, Canada and the US to create cross-party consensus on climate change. The findings support the argument that fossil fuel lobbies will have a greater impact on right-wing parties when multiple veto points allow them a higher number of access points to powerful and status-quo biased politicians, and when the existence of such veto points

incentivises right-wing parties to secure certain fossil-fuel seats as opposed to taking a more moderate position. Moreover, the fossil fuel lobby will have a stronger impact on such politicians when it operates in a pluralistic system that provides them with a competitive advantage. Further, such lobbying will have a bigger impact in majoritarian electoral systems, where other and smaller parties are not present to challenge such interests or drive competition on the issue.

The analysis reveals several paths to cross-party consensus on climate change. The solution term with the highest consistency (0.92) showed that consensus is explained by the conjunction of having few veto points, corporatist institutions and a proportional electoral system. This solution did not include any paradoxes, and supports the argument of the thesis. The significance of having few veto points demonstrates the importance of executive leadership on climate change – making it easier to overcome inter-regional differences of interests or values – and underlines the effect of having fewer access points for lobbies to influence parties. The solution also underlines the effect that interest aggregation has on parties when it comes to climate change. Given the significance of corporatism, the argument that ENGOs can access and influence politicians more easily in corporatist systems where their representation and consultation is institutionalised, presenting an effective counter-balance to fossil fuel interests, is lent support. Lastly, the solution underlines the impact of PR systems, where ENGOs not only have more parties to lobby, but these parties are more likely to compete and negotiate over the issue, improving the chances for consensus.

The two remaining solution terms in Table 4.8 explaining consensus included paradoxes, however. Yet the paradoxes (common in the social sciences) firstly demonstrate that interactive explanations are needed, and secondly show that parties can indeed have low levels of polarisation on climate change despite the presence of

strong fossil fuel interests, and despite high levels of pluralism combined with a majoritarian electoral system. The findings of the chapter thus contradict the common assumption that progress or consensus on climate change will automatically be difficult in states that produce or export fossil fuels. Rather, the article finds that the institutional context is critical, as it moderates the effects of fossil fuel interests and shapes the political decisions of parties. The findings thus help us understand why parties in countries such as Norway and the Netherlands have managed to overcome the disincentives faced by politicians in Australia, Canada and the US. Presumably, the low number of veto points and corporatist institutions in Norway and the Netherlands has moderated the impact of the fossil fuel interests. What seems to be particularly relevant is the role of veto points, as this runs through all the solution terms in the article, without any paradoxes. Multiple veto points consistently help explain polarisation, whilst the lack thereof consistently helps explain consensus.

The findings of the chapter also have a wider relevance. Given the large variation in levels of climate change salience between parties in some countries, and the large variation between states in levels of party agreement, the findings here align with those of Chapter 3, and point towards the partisan – as opposed to the valence – nature of climate change, feed into the growing debate about the nature of the climate change issue (Pardos-Prado 2012, Gemenis et al. 2012, Carter and Clements 2015). Moreover, given that the countries experiencing party polarisation and cross-party consensus on climate change align into 'climate laggards' and 'climate leaders' respectively, we can surmise that the explanation for variation in party agreement might also form a constitutive part of the explanation for variation in countries' ambitions on climate change. The findings of the chapter thus also feed in to the growing comparative climate policy literature and underline the relevance of political

parties, partisan theory – and now party agreement – for climate change outcomes (Knill et al. 2010, Jensen and Spoon 2011, Schulze 2014, Jahn 2016). Further, to the extent that the examined institutional features affect party agreement on climate change, and this agreement in turn affects countries' climate change ambitions, the chapter also demonstrates the relevance of these institutional features – and their interaction – in explaining variation in countries' climate policy ambitions (see Bättig and Bernauer 2009, Harrison and Sundstrom 2010, Tubi et al. 2012, Bernauer and Böhmelt 2013, Lachapelle and Paterson 2013, Madden 2014, Fankhauser et al. 2015).

4.6. Criticisms of the fsQCA method and caveats of the chapter

There has been increasing debate amongst configurational comparativists and regressional analysts over the last few years about the methodological distinctiveness (Munck 2016, Paine 2016 – though see Schneider 2016 for a response) and usefulness (Collier 2014) of fsQCA analysis for generating inferential claims about causation. Some of the methodological criticisms of fsQCA concern the method's sensitivity to small parametric shifts in the model specification and its apparent vulnerability to confirmation bias, as simulation studies have revealed that randomly chosen variables may systematically emerge as sufficient causal variables even when there is no true causal relationship empirically (see Braumoeller 2015, Krogslund et al. 2015). As a mid-way approach between quantitative and qualitative research, it is perhaps unsurprising that fsQCA analysis comes under methodological fire from scholars questioning the use of QCA techniques over traditional statistical tools on the one hand, and rich qualitative methods on the other. As such, there is a growing consensus on the need, at the minimum, to supplement any QCA analysis with either

statistical analyses or perhaps particularly qualitative tools such as case studies or process-tracing (see Collier 2014).

Thus given that the current analysis is 'broad brush' – with a medium-N sample and a methodology only capable of distinguishing explicit connections between conditions and an outcome, and the consistency and coverage of such connections – either an additional larger quantitative or a smaller fine-grained qualitative analysis is a desirable complement. Such a combination of methodologies would allow for the examination of the effects of each condition (or combination of conditions) in more detail, and to explore the mechanisms through which the conditions interact to influence the outcome. In other words, using non-fsQCA evidence to explain the interaction effects is beneficial as it provides strong evidence that there is not simply a direct mapping of institutional contexts onto the distribution of party agreement on climate change. As such, the fsQCA analysis – as it is a helpful tool for case study selection – will be complemented with a smaller, in-depth and qualitative comparative case study. This will enable us to test the findings of the fsQCA analysis and provide a more nuanced insight into how precisely the various conditions interlink and moderate each other's effects, and importantly how they influence the outcome. How and why countries were selected for case study analysis is outlined in the next chapter.

A further benefit of complementing the fsQCA analysis with a smaller and in-depth comparative case study is the limited timeframe of the current investigation, which covers just one election. Although the chosen timeframe is a 'hard case' that should reveal parties' true ambitions at addressing and creating consensus on climate change, a longer time period would naturally have been preferable, as it would have allowed for the arrival at conclusions with more confidence. Similarly, the alterations to the scores for Sweden and the US on the dependent variable – although condoned

by the fsQCA approach – should nonetheless make us wary of making too strong claims to validity solely based on the fsQCA analysis. Examining whether and how the investigated institutional features interlink to affect consensus and polarisation on climate change in specific case studies will thus help support the argument and shed light on the usefulness of inter-party differences in salience as a measure of party agreement.

4.7. Conclusion

A growing literature has identified increasing party polarisation on climate change in countries such as Australia, Canada and the US, as well as its detrimental effects. However, empirical literature on the determinants of consensus and polarisation on climate change is scarce, particularly in comparative work. This chapter has helped fill this gap in the literature by providing the first investigation that systematically analyses the determinants of strong and weak party agreement on climate change. An innovative methodological approach has been used to conduct the analysis (fsQCA – fuzzy sets qualitative comparative analysis), and the chapter has presented a novel conceptualisation and measure of party agreement on climate change using comparative manifesto project (CMP) data. The novel measure is a helpful contribution to the party politics literature, which has largely neglected climate change as a specific issue in favour of the environment more generally.

The chapter has revealed how fossil fuel interests, multiple veto points, pluralist institutions and a majoritarian electoral system interact to create party polarisation on climate change. The interactive nature of the explanation is important to emphasise, as the findings of the chapter demonstrate that fossil fuel interests will only be polarising if combined with veto points, pluralist institutions and a majoritarian electoral system, but will not be polarising if combined with fewer veto

points and corporatist institutions. The chapter also finds that countries with few veto points, corporatist institutions, and a proportional electoral system experience high levels of cross-party consensus on climate change. The findings thus challenge the common assumption that progress or consensus on climate change will automatically be difficult in states that produce or export fossil fuels. Rather, the chapter shows that the institutional context is vital, as it moderates the effects of fossil fuel interests and shapes the political decisions of parties.

However, several caveats to the investigation have also been outlined, such as the increasing methodological fire fsQCA analysis has come under in recent years, as well as the weaknesses of the limited timeframe, and subjective alterations needed to the dependent variable in the case of Sweden and the US. As such, the case was made to complement the fsQCA analysis with a smaller, in-depth and qualitative analysis. This is outlined in the next chapter.

Chapter 5: Selection and outline of the cases – A controlled comparison of Australia and Norway

Introduction

As the previous chapter outlined, a smaller qualitative and fine-grained analysis is a desirable and necessary complement to the fsQCA analysis. Such an analysis allows for the testing of the findings of the fsQCA analysis, and importantly for the examination of the effects of each condition in more detail, and to explore the mechanisms through which the conditions interact to influence the outcome. The combination of the fsQCA analysis with a smaller qualitative analysis thus allows us to arrive at conclusions about the effects of various conditions more confidently.

The current chapter therefore presents the method and rationale for the case selection, and also presents an overview of the political systems, energy portfolios and climate change policies of the countries. The chapter is divided into five sections. The first section presents the method and rationale for the case selection, and outlines the argument for choosing Australia and Norway for the small-N analysis and controlled comparison. The second and third section provides an overview of the politics and policies in Australia and Norway respectively, before the fourth section summarises the key similarities and differences – i.e. the country characteristics that are controlled for and those that are not – thus justifying the controlled comparison and outlining the focus of the investigations in the succeeding chapters. The fifth section concludes.

5.1. Selection of cases

As outlined in Chapter 1, the approach used to identify which cases to explore in this thesis is known as a controlled comparison based on Mill's (1843) Method of Difference. Following Mill's canonical work on the classical methods of 'difference' and 'agreement', the logic of the controlled comparison has been one of the defining methodologies for comparative politics (also see Lijphart 1975, Skocpol and Somers 1980). When utilising this methodology one strategically selects cases for analysis that either exhibit contrasting outcomes despite similar characteristics ('the method of difference'), or similar outcomes despite different characteristics ('the method of agreement'), with the aim of discovering empirical relationships between variables. The former method is utilised here, i.e. 'by "controlling" for certain common features (...) the analyst can thereby exclude these factors from the analysis and focus upon those conditions that do vary systematically within the selected universe' (Norris 2005: 36). At least one of the varying conditions must therefore form part of the explanation for divergent outcomes and the argument.

As such, the decision is made to select Australia and Norway for the controlled comparison. These represent the extremes on the dependent variable in the fsQCA analysis, receiving scores of 1 and 0 respectively, i.e. Australia experiences high levels of party polarisation on climate change, whilst there is strong cross-party consensus in Norway. Yet, the countries share a number of significant commonalities that provide a fruitful basis for comparison. Amongst OECD countries and the fsQCA-sample they represent the countries that allow for the controlling of the maximum number of alternative explanations. Furthermore, although Canada and the US also receive scores of '1' on the dependent variable in the fsQCA analysis, indicating similarly high levels of party polarisation on climate change, Australia distinguishes itself from the other two countries in two important respects. Firstly,

the issue of climate change has been more salient there than in Canada and the US, with several elections seeing the issue of climate change high on the agenda and forming a vital part of the success or failure of parties and governments. This factor therefore provides more opportunity to examine how parties and stakeholders strategise on climate change issues as an effect of their institutional setting. Secondly, Australia is arguably more vulnerable to the effects of climate change than Canada and the US. Australia will experience more frequent and longer droughts and bush fires as a consequence of global warming, as well as adverse effects to their biodiversity and heritage sites such as the Great Barrier Reef. Moreover, due to its position in the Asia-Pacific, it is likely to experience a large flow of immigrants from surrounding low-lying island states or affected states in South-East Asia. Australia's vulnerability to climate change thus makes this a more puzzling case to examine than Canada and the US. Lastly, instead of selecting two cases explained by a similar solution term in the fsQCA analysis (one method suggested by Schneider and Wagemann (2012: 308-309) as comparing two typical cases provides a strong basis for inferences about causal mechanisms) the decision is made to compare cases explained by two different solution terms. In particular, the paradox in the second solution term of Table 4.8 in Chapter 4 is of significant interest, as we wish to examine what moderates the effects of fossil fuel interests on party agreement on climate change. Comparing Australia with Norway thus allows us to do this, as they are both major fossil fuel exporters yet experience differing levels of party agreement on climate change. The next section provides an overview of Australian and Norwegian politics and policy. The aim is, firstly, to justify and explain the scores awarded in the fsQCA analysis and, secondly, to outline and demonstrate the ways in which the two countries have significant similarities and differences, thus providing a basis for the controlled comparison.

5.2. Politics and Policy Overview: Australia

5.2.1. Australia's Political System

The Commonwealth of Australia has a population of around 24 million people (ABS 2016) and its mainland covers an area of 7.69 million km^2. The population density is therefore approximately 3 persons per km^2, the lowest in the OECD and one of the lowest in the world (IEA 2012). British settlement started in the late 18^{th} century, and Australia became an independent nation when the six colonies federated in 1901. It now comprises six states (New South Wales, Queensland, South Australia, Tasmania, Victoria and Western Australia) and two territories (the Australian Capital Territory and the Northern Territory). Australia is a federal parliamentary constitutional monarchy, and Queen Elizabeth II is represented in Australia by the Governor-General (currently Peter Cosgrove). The federal government is separated into three branches: the legislature (the bicameral parliament and the Governor-General), the executive (the Federal Executive Council, which in practice gives legal effect to the decisions of the Cabinet) and the judiciary (the High Court of Australia and other federal courts). The bicameral legislature consists of the Senate (the upper house) and the House of Representatives (HoR) (the lower house). The party with the majority support in the HoR forms the government. The Senate has equal powers to those of the HoR, with the ability to pass, delay or refuse all legislation, but because the Senate cannot introduce appropriation bills and the lower house is the confidence chamber, in practice the HoR initiates most Australian legislation. The main purpose of having an independent Senate is to divide the national legislature into two powerful chambers that can check one another. An additional purpose of the Senate in the Australian case is also to check the dominance of the executive based in the lower house (Galligan 2007).

An additional feature of the federal system is the centrality of state governments for Australian politics. Galligan (2007: online) observes that:

> Commonwealth-state relations are a complex and ever changing arena of institution-building and political interaction that provide ample opportunities for Commonwealth policy-initiatives in areas of national significance as defined by national governments of the day, but also where there are real political limits enforced by the states. The states have greater influence in many areas of significance affecting the daily lives of people, so state politics remains a significant part of Australian federalism.

Under the Constitution, the federal government has responsibility for foreign relations, trade, defence and immigration, whilst state government responsibilities include justice, consumer affairs, health, education, forestry, public transport and main roads. One arena where the states demonstrate and exert their influence is on the Council of Australian Governments (COAG). COAG is a forum for the consideration of issues arising from the intergovernmental arena, or issues requiring a multi-governmental approach due to their cross-jurisdictional nature (Parkin 2007). It consists of the Prime Minister, the six state premiers, the two territory chief ministers and the president of the Australian Local Government Association. Although some interactions between the states and the Commonwealth are cooperative, such as the 2005 decision by all leaders to tighten internal security and expand policy powers in the 'war on terrorism' (Galligan 2007), much of the interaction is competitive, reflecting the interstate nature of Australian federalism. Parkin (2007) argues that the states and territories remain wary of COAG's potential to be distorted to serve the Commonwealth's interests, and that the creation by the states and territories in 2006 of a new Council of the Australian Federation – a type

of COAG but without the Commonwealth represented – is a product of this scepticism. Thus despite attempts by the Commonwealth to emphasise the virtues of national uniformity, the driving forces for state politics remain diversity, competing community demands, the desire for self-government, and the need to produce home-grown solutions to political problems (Sharman 2007). The states remain dependent on the Commonwealth for the majority of their finances, however, providing central government with significant leverage. Yet, the states have considerable discretion as to how those funds are administered. Moreover, given the centrality of state politics in Australia, national politicians must have a state base, leading Sharman (2007) to argue that a politician's state of origin is as important as party affiliation in shaping the partisan influence he or she can deploy. Even the Australian Labor Party – which has moved furthest towards creating a national party structure – is dependent for most decisions about the selection of candidates for national office on its state branches (Sharman 2007). This pattern is strengthened when it comes to the conservative Liberal and National parties, where there is even greater autonomy for state branches, regarding both state political matters and in decisions affecting national politics (Sharman 2007).

The way that Commonwealth politicians are elected is as follows. The Senate has 76 senators, twelve from each state and two each from the territories. The HoR has 150 members elected from single-member electoral divisions. Elections for both chambers are usually held simultaneously every three years, with senators having overlapping six-year terms (except for those from the territories whose terms are fixed to the electoral cycle for the lower house). Australia's electoral system is classified as a plurality-majority system (Reynolds et al. 2005), where the lower house is elected by a majoritarian system using Alternative Vote (AV) (i.e. the system makes use of the voters' second preference to produce a winner with an

absolute majority if one does not emerge from the first round of voting), whilst the upper house is elected using a proportional system based on the Single Transferrable Vote (STV) (i.e. the voter ranks the candidates in a multi-member district and the candidates that surpass a specified quota of first preference votes are immediately elected, whilst votes are redistributed from the least successful and eliminated candidates to more successful candidates until a sufficient number is declared) (Reynolds et al. 2005). Voting is compulsory for all enrolled citizens who are eighteen years or older.

As a result of the electoral system, Australian politics is dominated by two major political groups, the Australian Labor Party (ALP) and the Coalition. The ALP is considered the left-wing alternative, whilst the Coalition – a formal grouping of the Liberal Party of Australia and its minor partner the agrarian/rural National Party of Australia – make up the right-wing alternative. Some independents as well as Greens have achieved limited representation in parliament, mostly in the upper house. However, despite occasionally controlling the balance of power in the Senate, these smaller parties have little relevance to the legislative process (Kellow 2007, Miragliotta 2013). An overview of the parties' election results for both chambers as well as government formations from 2001-2013 is provided in the Table 5.1.

Tucker (2007) argues that the campaign finance system in Australia further entrenches the dominance of the major parties, and moreover makes them reliant on private donations despite a system of public subsidy. However, far from making such donors the most powerful actors in Australian politics, Marsh (2007) outlines how the move from quasi-corporatism in the 1980s and 1990s to neo-liberalism and a more pluralistic interest group system meant that Australia's 'strong' parties continued to be the major determinant of group strategies, access, and chances of success. Moreover, he argues that consultation became designed to satisfy the state's

Table 5.1. Election results: House of Representatives and the Senate, and government formations 2001-2013[10].

Election	Party	HoR vote (%)	HoR seats	Senate seats	Government
2001	Labor	37.84	65	28	Coalition Prime Minister: John Howard
	Coalition: Liberal	37.40	68	31	
	Coalition: National	5.61	13	3	
	Coalition: CLP	0.32	1	1	
	Democrats			8	
	Greens			2	
	Independent			2	
	Other			1	
2004	Coalition: Liberal	40.47	74	33	Coalition Prime Minister: John Howard
	Coalition: National	5.89	12	5	
	Coalition: CLP	0.34	1	1	
	Labor	37.63	60	28	
	Democrats			4	
	Greens			4	
	Other			1	
2007	Labor	43.38	83	32	Labor Prime Minister: Kevin Rudd Julia Gillard
	Coalition: Liberal	36.60	55	32	
	Coalition: National	5.49	10	4	
	Independent	2.23	2		
	Greens			4	
	CLP			1	
	Other			1	
2010	Labor	37.99	72	31	Labor Prime Minister: Julia Gillard Kevin Rudd
	Coalition: Liberal	30.46	44	28	
	Coalition: LNP	9.12	21	3	
	Coalition: National	3.43	6	2	
	Coalition: CLP	0.31	1	1	
	Greens	11.76	1	9	
	National Party (WA)	0.34	1		
	Independents	2.52	4	1	
	Democratic Labor			1	
2013	Labor	33.38	55	25	Coalition Prime Minister: Tony Abbott Malcolm Turnbull
	Coalition: Liberal	32.02	58	23	
	Coalition: LNP QLD	8.92	22	6	
	Coalition: National	4.29	9	3	
	Coalition: CLP	0.32	1	1	
	Greens	8.65	1	10	
	Palmer United Party	5.49	1		
	Katter's AU Party	1.04	1		
	Independents	1.37	2	1	
	Other			1	

* Parties that have never won multiple seats in consecutive elections are listed as 'Other'.

[10] Note that there was a federal election in Australia on 2 July 2016, with the conservative Coalition retaining governmental power and Malmcolm Turnbul continuing as Prime Minister. These election results are not included in the table, however, as they fall outside the time frame of the investigation of the thesis.

need for information in policy planning, falling far short of the minimal requirements for democratic representation. Similarly, Matthews and Warhurst noted that the shift to more pluralistic forms of interest aggregation meant 'a change in government can usher in quite dramatic shifts in policy emphasis, broadly benefiting some groups and disadvantaging others' (1993: 95). As such, any interest group that aligns itself too closely with a single party inevitably creates problems for itself, as it will have to deal with the opposing party when it eventually forms a government. The environment movement arguably aligned itself too closely with the ALP in the 1990s, thus having less influence over the Coalition (Marsh 2007). In an attempt to alleviate this problem it gave grudging endorsement to the Coalition's environmental policy in the late 90s, although the environmental movement was subsequently generally hostile to the Howard government. The Howard governments tended to return the favour by severely cutting public funding for environmental groups (Marsh 2007). More recently, a symposium on environmental movement politics in Australia in *Environmental Politics* (2016) outlined the persisting weak and struggling position of the environment movement, with Christoff arguing they are 'in a time of crisis' (2016b: 1034). The parliamentary committees do little to alleviate the imbalance of interest group access and influence. Uhr (2007) outlines how the committees are reactive rather than proactive, and few manage to set the agenda for parliamentary or government business. He argues that governing parties tend to prefer docile and under-resourced committees that can be directed to stay clear of government policy and focus on questions of process and administrative detail.

Demonstrating the comparative advantage of vested interests in contrast to ENGOs, in 2002 the Commonwealth Ombudsman criticised the economic modelling of the costs of the Kyoto Protocol undertaken for the government by The Australian Bureau of Agricultural and Resource Economics. The Ombudsman concluded that

the modelling process was overseen by a steering committee comprised mostly of fossil fuel industry representatives and that environmental groups were excluded (Hamilton 2002, Barnsley 2006). It was also criticised for blurring government-industry boundaries in the drafting and managing of policy, the funding of research into the cost of abatement, and the inclusion of industry on international government delegations (Commonwealth Ombudsman 1998, Hamilton 2001, Papadakis 2002, Lyster 2004). By contrast, pro-Kyoto groups, environmental organisations and alternative energy groups were treated as outsiders (Crowley 2010: 208).

Despite these interest group dynamics, however, Australia is frequently ranked as being highly democratic. Australia achieves the highest scores on measures of both demand-side democracy (i.e. civil liberties such as freedom of speech, association and press) (Freedom House 2013) and supply-side democracy (i.e. democratic participation in government such as the openness and competitiveness of executive recruitment) (Polity IV 2016). Australia is also highly developed, and is one of the wealthiest countries in the world. It is ranked as the second-highest country on the UNDP's Human Development Index (2015) and in 2014 had the world's fifth-highest per capita income (IMF 2015). It also has relatively low unemployment levels, currently at 5.7% (ABS 2016). Moreover, Australia was not significantly affected by the global financial crisis in comparison to other OECD countries, only experiencing a loss of -1.37% of GDP post-2008. Australia is also well integrated into the international community, and is a member of the United Nations, G20, the Commonwealth of Nations, ANZUS, the Asia-Pacific Economic Cooperation, the Pacific Islands Forum, the World Trade Organisation and the OECD.

5.2.2. Australia's Energy Portfolio

Australia enjoys the benefits of abundant and diverse energy resources. It is the world's ninth-largest energy producer and is one of only three net energy exporters in the OECD (IEA 2012: 7). Australia's energy mix is dominated by fossil fuels. Coal represents 41% of total primary energy supply (TPES), followed by oil (32% of TPES) and gas (21%), whilst biofuels (4%) and hydro energy (1%) are smaller sources (IEA 2012: 17). It is the fourth-largest coal-producing country in the world after China, the US and India, and the world's largest coal exporter. Australia exports most of its coal production (around 80%) and around half of its natural gas production (IEA 2012). The fossil fuel industry is therefore a significant contributor to the Australian economy, contributing between 16-17% of GDP and 59% of total exports (Australian Government Department of Foreign Affairs and Trade 2012). The industry also provides significant employment and infrastructure (Bureau of Resources and Energy Economics 2012).

The government of Australia, and state and territory governments, generally own mineral and petroleum resources on behalf of the community, and impose charges on minerals extraction and petroleum production to ensure that the community receives a benefit from their development. As such, resource extraction activities in Australia are liable to specific taxes (IEA 2012), and government responsibilities for resource-taxation are divided between the Australian Government and the states or territories. These charges have varied over time. In 2012, for example, the Rudd Labor government introduced new resource taxation arrangements, including a minerals resource rent tax (which applied to the mining of iron ore and coal) and a petroleum resource rent tax (which extended to all onshore and offshore oil and gas projects, including activities in the North West Shelf and coal seam gas projects). The tax, levied on 30% of the 'super profits' from these

industries, was to be paid once the annual profits of a company reached $50 million AUD, meaning only the largest companies would be affected, whilst small to medium sized companies would be protected. However, the tax became an issue of intense debate and contestation, and the Abbott-led Coalition government repealed it in September 2014. Thus the state has struggled to ensure that the Australian people and future citizens profit from the resources boom.

The responsibility for energy policy has moved between government departments over time. The responsibility for energy was incorporated within the Department of Industry, Tourism and Resources between 2001 and 2007, but this was restructured into the Department of Resources, Energy and Tourism following the 2007 federal election. Moreover, the Department of Climate Change was established in 2007, and morphed into the Department of Climate Change and Energy Efficiency in 2010 as a result of government changes. In March 2013 the Department of Industry, Innovation, Climate Change, Science, Research and Tertiary Education was created, dissolving the Department of Resources, Energy and Tourism, and incorporating the functions of the previous Department of Climate Change and Energy Efficiency and the Department of Industry, Innovation, Science, Research and Tertiary Education. This new ministry was abolished less than six months later, however, when the newly elected Abbott government transferred most functions to the Department of Industry, and environmental functions were transferred to the Department of the Environment. More recently, in July 2016 the energy portfolio was transferred to the newly formed Department of the Environment and Energy.

5.2.3. Australia's Climate Change Policy

Australia's climate targets range in the lower band of developed countries, despite the fact that Australia is one of the highest emitters on a per-capita basis in the OECD (IEA 2012: 33). Climate change denialism is not uncommon in the Liberal and National parties (Talberg and Howes 2010, Fielding et al. 2012), and Eckersley argues that this has led to intense disagreements along major party lines on 'the urgency of the problem, Australia's international responsibility *vis-à-vis* developing countries, the type and degree of engagement with the multilateral climate negotiations and the choice of climate policy instruments' (2013: 390). As such, Tranter argues that party polarisation on climate change constitutes 'one of the strongest impediments to progressive climate change policy' in Australia (2013: 411).

The Coalition government under John Howard negotiated an 8% increase in emissions above 1990-levels by 2008-2012 at Kyoto in 1997, and also negotiated the so-called 'Australia clause' (outlined in Article 3.7 of the Protocol), which allowed a country with net land clearing in 1990 to include the equivalent emissions on its baseline. In other words, Australia could claim credit when the boom in land clearing ended around 1990. Australia was the only developed Annex 1 country to benefit from this clause, and without it the country's emissions would stand at 25% above 1990 levels. Crowley (2010) argues Australia's claim to special-case status looks questionable when considering the same challenges facing Australia (such as its reliance on fossil fuels for energy, transport issues due to the size of the country and the rate of population growth) applied to Canada as well, which did not argue for an increase in emissions. Moreover, critics pointed out that the costs of *not* acting on climate change were not considered, or the costs of being excluded from global carbon trading and the other Kyoto mechanisms. Nor did the government consider

the benefits of acting early (Hunt 2004, Pittock 2005). Despite its +8% allowance under the Kyoto Protocol, however, the Howard government refused to ratify the treaty, although in an attempt to demonstrate that non-parties could take effective action on climate change they remained a UNFCCC party with accounting and reporting obligations (Crowley 2010: 213). In addition, Australia made a serious effort to derail the Kyoto process, questioning the IPCC science, opposing legally binding targets and advocating differentiation (but only for itself), and even the United States criticised Australia's 'spoiling' efforts (Macdonald 2005: 225-226). The Coalition government's key programmes were the 1997 'Safeguarding the Future' package, the 1998 'National Greenhouse Strategy', the 1999 'Measures for a Better Environment' package, and the 2004 'Securing Australia's Energy Future' measures. However, the programmes were criticised for being poorly funded per capita on a comparative basis, for failing to promote energy efficiency, alternative energy or energy industry restructuring, and for emphasising voluntary over market-based or regulatory instruments (Crowley 2010: 215). Coalition climate policy thus isolated Australia among developed nations, and was later criticised by the independent Australian National Audit Agency as being inadequate, ineffective and inefficiently managed, and unlikely to deliver significant emissions reductions (Australian National Audit Office 2004).

The success of Labor and the election of Kevin Rudd as Prime Minister in 2007, however, ushered in a dramatically new direction in Australian climate policy. Rudd famously labelled climate change 'the great moral challenge of our generation'. The Kyoto Protocol was swiftly ratified, and over the next five years the Rudd and Gillard governments introduced several climate change measures. Indicating the greater importance of climate change, the Department of Climate Change was established in December 2007, eventually being replaced by the

Department of Climate Change and Energy Efficiency in March 2010. In 2009 the government presented the Carbon Pollution Reduction Scheme (CPRS) to help meet Australia's commitment to a 5% cut in emissions from 2000-levels by 2020 (or a 35% reduction if a comprehensive global agreement was reached). The House of Representatives passed the legislation in 2009, however agreement was not reached in the Senate. After the 2010 federal election, the Gillard government updated and released significant climate change, energy and resource policies in the document 'Securing a Clean Energy Future' (2011). The plan introduced a carbon price, renewable energy expansion, energy efficiency improvements and action on land. The subsequent Clean Energy Futures Package passed in the Senate in November 2011. Significantly, the package introduced a carbon-pricing scheme for electricity generators and industry through the Energy Act 2011. The carbon-pricing scheme was envisaged as a cap-and-trade emissions trading scheme, though with a fixed price for carbon permits for the first three years, increasing annually, in order to provide predictability for business (IEA 2012: 39-40). In addition, the above-mentioned Minerals Resource Rent Tax (commonly known as 'the mining tax') was introduced in July 2012.

However, the introduction of a carbon price (frequently dubbed the 'carbon tax') was controversial and became the issue of a contentious debate between the major parties. Malcolm Turnbull was ousted as the leader of the Liberal Party over his support for the emissions trading scheme, and Tony Abbott took over the leadership of the party. The Liberal opposition pushed the argument that people could not trust the Gillard government, as the introduction of a price on carbon was seen as breaking an election promise. Abbott was particularly vitriolic in his criticism of the 'carbon tax'. His 'axe the tax' and 'stop the toxic tax' campaign saw him coining a price on carbon as 'a great big tax on everything' and 'a so-called

market in the non-delivery of an invisible substance to no one' (Sydney Morning Herald, 15 July 2013). The science of climate change was denigrated, questioned and downplayed (Eckersley 2013: 391), and Abbott vowed to repeal the 'carbon tax' as well as the 'mining tax' if the Coalition won the 2013 election.

Thus, after gaining office in 2013, the Coalition government under Abbott successfully repealed both the carbon tax and the mining tax in 2014. On its first day in office, significant dismantling of climate policy and institutions took place. The government ordered the Clean Energy Finance Corporation to cease making investments and abolished the Department of Climate Change. Similarly, the independent Climate Commission, which had been established in 2011 to communicate reliable and authoritative information about climate change in Australia, was abolished. All responsibilities were moved to the Department of the Environment. The changes were justified on grounds of cost, but Rootes (2014) argues that since the sums saved were very modest, the suspicion is that the reasons were ideological. The government also moved to disband the independent Climate Change Authority, designed to provide independent scientific advice for the government, however, this proved trickier to abolish as it was protected by legislation. The Coalition government proposed its own 'Direct Action Plan' to replace the previous Labor government's policies. This policy package relies on 'carrots' as opposed to 'sticks'; thus rather than depending on a market mechanism to discourage emissions, the government pays industry to reduce emissions they otherwise would not have reduced. The installation of renewable energy infrastructure and expansion of tree planting (carbon sequestration) is also incentivised by the Plan. However, few informed observers believe Direct Action will efficiently reduce emissions, or at an acceptable cost. A post-election survey of 35 prominent economists found that while thirty preferred the existing emissions

trading scheme, only two believed the Direct Action Plan would be a better way for Australia to reduce its emissions (Rootes 2014: 170). Moreover, although Australia ratified the Paris Agreement on November 10 2016, its target – a 26-28% reduction on 2005-levels by 2030 (*Australia's Intended Nationally Determined Contribution to a new Climate Change Agreement August 2015*) – is seen as weak (Jotzo 2015, Christoff 2016c), and recent modelling projects Australia's emissions actually to rise to 21% above 2005 levels by 2030 as opposed to being reduced (Climate Action Tracker 2016b, Christoff 2016c). Furthermore, Australia's Emissions Reduction Fund has been criticised for being underfunded and focusing on the wrong projects (Christoff 2015), and little abatement has been achieved (Blakers and Considine 2016). Australian climate policy thus still lags behind most developed nations'.

5.3. Politics and Policy Overview: Norway

5.3.1. Norway's Political System

The Kingdom of Norway has a population of around 5.2 million people and a total area of 385, 252 km^2 (SSB 2016), which makes Norway the least densely populated country in Europe after Iceland, with 15 inhabitants per square kilometre (IEA 2011: 13). A constitutional monarchy, Norway divides power between the Parliament (*Storting*), the Cabinet, and the Supreme Court, as determined by the 1814 Constitution. The country is highly democratic, and like Australia it achieves the highest scores on measures of both demand-side democracy (i.e. civil liberties such as freedom of speech, association and press) (Freedom House 2013) and supply-side democracy (i.e. democratic participation in government such as the openness and competitiveness of executive recruitment) (Polity IV 2016). Norway is a unitary state, but has administrative and political subdivisions on two levels, the counties

(*fylker*) and municipalities (*kommuner*). The Sámi people also have a certain amount of self-determination and influence over traditional territories through the Sámi Parliament and the Finnmark Act. The Storting is unicameral, with 169 members elected every four years from 19 constituencies based on proportional representation. 150 members are elected directly, whilst an additional 19 'levelling seats' are allocated on a nationwide basis to make the representation in parliament correspond better to the popular vote for the political parties. The electoral threshold for the levelling of seats is 4%. As a result of the low electoral threshold, Norway is a multi-party system, with traditionally seven or eight parties represented in parliament (depending on the election); moreover, coalition and minority governments are common, as well as consensus and compromise (Arter 2008: 194). An overview of the parties' election results and government formations from 2001-2013 can be seen in Table 5.2. Despite increasing electoral volatility (as in most western democracies) (Arter 2008: 101) the parties traditionally align into to clear 'blocks', with the Labour, Socialist Left and Centre Party making up a social democratic or left-wing coalition, whilst the Conservative, Progress, Liberal and Christian People's parties form a non-socialist or right-wing coalition (Arter 2008: 142).

There are close relationships between the major parties and organised interests, e.g. between the Labour Party and the Norwegian Confederation of Trade Unions (LO) and the Conservative Party and the Confederation of Norwegian Enterprise (NHO). This reflects the strong ideology of 'social partnership' in the country (Katzenstein 1985) and its established corporatist traditions. Dryzek et al. (2002: 660) define Norway as 'an actively inclusive' corporatist state, i.e. the state does not simply accept the mix of interests generated by social forces, but attempts to anticipate and organise interests into the state to secure a desired pattern of interest

Table 5.2. Norwegian election results and government formations 2001-2013.

Election	Party	Votes (%)	Seats	Government
2001	Labour Party	24.3	43	Conservative Party + Christian People's Party + Liberal Party Prime Minister: Kjell Magne Bondevik, Christian People's Party
	Conservative Party	21.2	38	
	Progress Party	14.6	26	
	Socialist Left Party	12.5	23	
	Christian People's Party	12.4	22	
	Centre Party	5.6	10	
	Liberal Party	3.9	2	
	Coastal Party	1.7	1	
2005	Labour Party	32.7	61	Labour Party + Socialist Left Party + Centre Party Prime Minister: Jens Stoltenberg, Labour Party
	Progress Party	22.1	38	
	Conservative Party	14.1	23	
	Socialist Left Party	8.8	15	
	Christian People's Party	6.8	11	
	Centre Party	6.5	11	
	Liberal Party	5.9	10	
2009	Labour Party	35.4	64	Labour Party + Socialist Left Party + Centre Party Prime Minister: Jens Stoltenberg, Labour Party
	Progress Party	22.9	41	
	Conservative Party	17.2	30	
	Socialist Left Party	6.2	11	
	Centre Party	6.2	11	
	Christian People's Party	5.5	10	
	Liberal Party	3.9	2	
2013	Labour Party	30.8	55	Conservative Party + Progress Party Prime Minister: Erna Solberg, Conservative Party
	Conservative Party	26.8	48	
	Progress Party	16.3	29	
	Christian People's Party	5.6	10	
	Centre Party	5.5	10	
	Liberal Party	5.2	9	
	Socialist Left Party	4.1	7	
	Green Party	2.8	1	

articulation. Whereas traditional corporatism normally involves a tripartite concertation where the executive co-opts business and labour federations (Schmitter and Lehmbruch 1979), 'actively inclusive' corporatism moves beyond the traditional form to include additional groups such as women's and environmental organisations (Dryzek et al. 2002: 660). Environmental groups receive funding from the state, and have extensive representation on parliamentary commissions, committees and working groups (Arter 2008: 157).

A wide range of stakeholders also engages in committee hearings, thus having substantial influence. Klausen and Opedal (1998) label Norway 'the country

of a thousand committees', and according to Matthews and Valen the parliamentary standing committees constitute the most important working groups in the Storting (1999: 157). Committees are set up by cabinet, and are used to generate proposals for parliament, traditionally a rubber stamp for committee decisions (Dryzek et al. 2002: 669). Moreover, the parliamentary party group meetings generally also rubber-stamp the line formulated by the party's smaller committee groups (*komitéfraksjoner*), leading Rommetveit to note that: 'on a day-today basis I would expect the committee groups (*komitéfraksjoner*) to be more influential in relation to most specific issues than the group boards' of the Storting parties (in Arter 2006: 223-4).

Though the two shouldn't be conflated, Arter argues that the Norwegian welfare model is in many ways a legislative product of the Norwegian model of governance (2008: 152). With a strong social democratic and corporatist tradition, Norwegian governments have sought policies designed to promote welfare capitalism, i.e. an advanced welfare state sustained by the wealth generated by the private sector (Esping-Andersen 1990). There are three distinct outcomes of the Norwegian welfare model. One is that the country is characterised by low income-inequality. The second is that there is low health-inequality. Thirdly, there is high gender equality (Arter 2006: 179). Norway also frequently has the highest ranking on the United Nations Development Programme's Human Development Index (UNDP 2015). The generous welfare provisions are made possible by the wealth of the Norwegian state. Norway is one of the richest countries in the world, and ranks second to Luxembourg among OECD countries for GDP per capita. It also has low unemployment levels, currently at 4.6 % (SSB 2016). Norway managed to escape relatively unscathed from the global financial crisis in comparison to other OECD countries, only experiencing a loss of -1.6% of GDP post-2008.

Norway is not a member of the European Union, but is a member of the European Economic Area (EEA) and the Schengen Area. As such it is a member of the single market and implements the majority of EU legislation (though it has exemptions for fisheries, agriculture, justice and home affairs). Norway also has strong ties to other supra- and international organisations. It is a founding member of the United Nations, the Council of Europe, the Antarctic Treaty and the Nordic Council, and a member of the World Trade Organisation (WTO) and the OECD.

5.3.2. Norway's Energy Portfolio

Norway's energy mix is dominated by hydropower, accounting for nearly 40% of total primary energy supply (TPES), followed by oil (34% of TPES) and natural gas (20%), whilst biomass and waste (5%) and coal (2%) are smaller sources. Compared to other OECD members, Norway has a relatively low share of fossil fuels in its domestic energy mix and it has by far the highest share of hydropower (IEA 2011: 14). Norway exports most of its oil and gas production (around 93% of total oil and gas production) and is the third-largest exporter of energy in the world after Russia and Saudi Arabia (IEA 2011). The petroleum sector is therefore the backbone of the Norwegian economy. In 2009 the sector generated 22% of GDP, 47% of exports, 26% of investment in the country, as well as providing 27% of government revenue (IEA 2011: 13).

Taxation on petroleum and hydropower producers differs from general company taxation, due to the excess profits in these sectors. In the petroleum sector a special tax of 50% on income from petroleum extraction is applied, in addition to the ordinary capital income tax of 28%. As such, the marginal tax rate on the excess return within the petroleum sector is 78%. The excess return in hydropower generation is taxed at 30% and consequently the marginal tax rate is 58% (IEA 2011:

23). In 1995 the Norwegian government established the largest sovereign wealth fund in the world – The Government Pension Fund of Norway (commonly referred to as the Oil Fund (*oljefondet*) – which is based on oil revenues and taxes, dividends, sales revenues and licensing fees from the petroleum industry. The government is only allowed to add 4% of the revenues of the fund to their budget. The fund is thus intended to reduce overheating in the economy because of oil revenues, to minimise the uncertainty from volatility in oil prices, and to provide a 'cushion for the future', for example, to compensate for expenses associated with the ageing population. The sovereign wealth fund also has an 'Ethical Council', which guides the ways in which it can invest. As such (and due to mounting international and domestic pressure) the fund has started to divest from coal. This approach contrasts to the Australian one, where they have largely struggled to ensure that the Australian people and future citizens profit from the resources boom.

The Ministry of Petroleum and Energy (MPE) holds the overall responsibility for the management of petroleum resources on the Norwegian Continental Shelf. This includes ensuring that activities are carried out in accordance with the guidelines given by the Storting and the government. The ministry is also responsible for supervising the state-owned corporations Petoro AS and Gassco AS, and manages the state ownership in the oil company Statoil ASA where the state holds a majority of shares. MPE also ensures the sound management – both economically and environmentally – of water and hydropower resources, as well as other domestic energy sources. Lastly, MPE acts as the owner of Statnett (the national electricity grid) and Enova (a government enterprise responsible for promotion of environmentally friendly production and consumption of energy) on behalf of the government.

5.3.3. Norway's Climate Change Policy

Despite being such a large fossil fuel producer, Norway takes environmental and climate policy very seriously. In contrast to Australia, Norway's mitigation targets are among the highest in the world. The petroleum industry faces strict environmental regulations, and a carbon tax was introduced as early as in 1991 (the price of which doubled in 2012). An emissions trading scheme was introduced in 2005, and was incorporated into the EU ETS in 2008. In 2007, the Stoltenberg government released a Climate White Paper, which outlined Norwegian ambitions to become a world leader on climate change (*Report No. 34 (2006–2007) to the Storting*). The Paper included a voluntary upgrade of Norway's original Kyoto Protocol target by 10%, putting the Norwegian target at 9% below 1990-levels by 2008-2012. The Paper also committed Norway to a unilateral reduction of emissions by 30% below 1990-levels within 2020, rising to minus 40% if an agreement consistent with a two-degrees scenario was reached among major emitters (subject to the continuation of flexibility mechanisms). The Paper also declared that Norway would aim for complete carbon neutrality by 2050 (or by 2030 if an ambitious global agreement is reached) (Norwegian Ministry of the Environment 2009). Significantly, these ambitious goals were supported by six out of seven parties in the Storting (the exception being the Progress Party). The cross-party climate settlement ('*klimaforliket'*) reached in 2008 was reiterated and strengthened in a second White Paper released in 2012, which outlined further measures to achieve the ambitious targets and to ensure that two-thirds of emissions cuts be made domestically (*Report No. 21 (2011–2012) to the Storting*). More recently, Norway has set itself the ambitious target of at least 40% emissions reductions by 2030 compared to 1990 levels, with the aim to be carbon neutral by 2050 (Norway's Intended Nationally

Determined Contribution [INDC] to the Paris Agreement 2015). Norway ratified the Paris Agreement on 21 June 2016.

Meeting the targets will be challenging, however, as both the country's electricity supply and energy use in buildings are already essentially carbon-free due to the dominance of hydropower (IEA 2011: 7). The challenge then is that only the petroleum, manufacturing and the transport sectors have any significant potential for further cuts in emissions (IEA 2011: 9). The government therefore plans to meet its emissions reduction targets largely by purchasing UN-approved credits generated by projects under the Clean Development Mechanism (CDM). A key example is Norway's contribution to schemes such as REDD+, aimed at reducing deforestation in tropical countries. Norway finances a comprehensive programme of around USD 1 billion (NOK 6.3 billion) to support capacity-building and programmes to reduce deforestation in Indonesia, making it a leader in international policies to reduce deforestation. However, domestic progress is being made, particularly in the transport sector, where Norway's incentives for the uptake of electric vehicles (e.g. exemptions from toll road charges and various taxes, free access to public parking and transport on ferries, and significant funding for infrastructure developments) are world-leading, and Norway now has the largest fleet of electric vehicles per capita in the world (Norwegian Road Federation 2015).

The Ministry of Climate and Environment is responsible for coordinating Norwegian climate change policies. Several other ministries are also involved in such policies, including the Ministry of Petroleum and Energy, the Ministry of Transport and Communications, the Ministry of Trade and Industry and the Ministry of Agriculture and Food. The Ministry of Finance is responsible for taxation policies, including environment-related taxes, as well as the government programme for the purchase of emission credits under the CDM. Local governments are responsible for

implementing policies and measures at the local level, for example, through waste management, local planning and transport measures (IEA 2011).

5.4. The controlled comparison justified

The above overview of the political systems, energy portfolios and climate policies of Australia and Norway shows that they share a number of significant similarities – and importantly key differences – that provide a fruitful basis for comparison. Both countries are sparsely populated, developed and wealthy democracies, with similarly high standards of living and quality of democracy. Both are highly integrated into world society and the global economy, yet neither country was significantly affected by the GFC. Both countries had the smallest loss of GDP post-2008 amongst all OECD countries, and both countries have relatively low levels of unemployment. This similarity consequently rules out the explanation for polarisation on climate change in Australia being the cause of a financial recession. Significantly, Australia and Norway are both major fossil fuel exporters. Although their domestic energy profiles differ substantially – Australia being heavily dependent on coal whilst Norway's electricity generation is largely based on hydro-electricity – they nonetheless face similarly high marginal abatement costs for emissions reductions. As Norway's domestic electricity production is already essentially decarbonised, it can only reach its emissions reduction targets by reducing emissions from the petroleum, manufacturing and transport sectors, which already operate at high levels of efficiency (IEA 2011: 9). As such, Australia and Norway share significant commonalities that are consequently 'controlled' for when seeking to explain the variation in our dependent variable.

However, Australia and Norway also differ in several significant ways. These characteristics thus cannot be controlled for, and are likely to form part of the

argument as to why the countries differ in terms of party agreement on climate change. Firstly, Norway is a unitary and unicameral country, whilst Australia is a federal country with multiple veto points. Secondly, Norway has a corporatist institutional governance system, whilst Australia's system of interest aggregation is highly pluralist. Thirdly, Norway has a multi-party proportional electoral system whilst Australia effectively has a majoritarian two-party system. An overview of the similar (and thus controlled for) and dissimilar (not controlled for) country characteristics can be seen in Table 5.3. The features that cannot be controlled for are thus brought forward into the qualitative analysis.

Table 5.3. Similar (controlled for) and dissimilar (not controlled for) country characteristics: Australia and Norway.

Country characteristics	Australia	Norway
Population density	Low	Low
GDP pc	High	High
Standard of living	High	High
Quality of democracy	High	High
International integration	High	High
Effects of GFC	Weak	Weak
Unemployment levels	Low	Low
Fossil fuel exportation	High	High
Marginal abatement costs	High	High
Public concern for climate change	?	?
Number of veto points	High	Low
Interest aggregation	Pluralism	Corporatism
Electoral system	Majoritarian	Proportional
Party agreement on climate change	Polarisation	Consensus

However, one factor that so far has not been mentioned – and which could potentially contribute to the explanation for the differences in party agreement on climate change in Australia and Norway – is the strength of public concern for climate change in each country. We do not know whether levels of concern for climate change are similar or dissimilar in Australia and Norway, and thus whether this can be controlled for or not. The next chapter therefore examines the differences in public concern for climate change in both countries.

5.5. Conclusion

This chapter has presented the method and rationale for the case selection for the small-N analysis – which will both test and complement the fsQCA analysis in Chapter 4 – and presented the case for selecting Australia and Norway for the controlled comparison. Despite significant similarities, most importantly the fact that they are both major fossil fuel exporters, these countries represent the extremes on the dependent variable in the fsQCA analysis, Australia having high levels of party polarisation on climate change whilst Norway experiences strong cross-party consensus on the issue. Having justified the scores awarded in the fsQCA analysis and reviewed their similarities and differences, this chapter therefore sets the scene for the succeeding chapters and investigations. One characteristic that could not be controlled for, however, was public opinion and levels of climate change concern. This will consequently be examined in the next chapter.

Chapter 6: Public concern for climate change in Australia and Norway

Introduction

In seeking to answer the research puzzle of the thesis, i.e. what explains variation in party agreement on climate change, the large and medium-N analyses of Chapters 3 and 4 will be complemented with an in-depth and comparative case study. The previous chapter outlined the argument for comparing Australia and Norway, as they share a significant number of commonalities yet experience stark differences in levels of party agreement on climate change. The previous chapter outlined the similar country characteristics, which are consequently 'controlled' for when explaining the variation in party agreement, and also some key differences, which are thus likely to form part of the argument for variation. However, the previous chapter also pointed out how one potentially relevant characteristic, namely levels of public concern for climate change, is unknown. We do not know what the levels of public concern for climate change are in each country, and whether they differ. Thus we do not know whether this is a characteristic we can 'control' for in our argument, or whether it might form part of the explanation for consensus and polarisation in each country. As was outlined in Chapter 2 (section 2.2.4.), the comparative climate policy literature identifies public concern as a potentially relevant feature explaining variation in states' ambitions on climate change. With the emphasis on nations themselves to create and implement policies to address climate change, a key hurdle is naturally to convince the public of the need for such policies. Climate change policy calls for significant sacrifices from the public or for alterations in their behaviour, and if public opinion is hostile or indifferent such policies are unlikely to

transpire (Lorenzoni et al. 2005). Examining variation in climate change concern is thus important due to its central role in the policy process (Pietsch and McAllister 2010: 221-2) and is therefore the aim of this chapter. Levels and drivers of public concern for climate change are examined in Australia and Norway, in order to establish whether this might help explain the variation in party agreement between the two countries.

The chapter is divided into five parts. The first part of the chapter reviews the environmental sociology literature, which seeks to explain variation in environmental- and climate change concern between countries and citizens, and thus provides the theoretical underpinning for the investigation. Levels of climate change concern in Australia and Norway are then examined and compared in the second section and found to differ significantly, with levels of concern being significantly lower in Australia than in Norway. In seeking to explain this variation, the third section explores the drivers of public concern in each country through binary logistic regression analyses. Significantly, although the populations of Australia and Norway and drivers of concern are found to be largely similar, they differ in two important respects, namely that the variation in concern in Australia is explained by partisanship (with the Australian public found to be polarised on climate change along party lines), and by Australian people's feelings of identity, attachment and responsibility differing from Norwegian's, thus underlining the impact of Australia's size and federal structure on levels of climate change concern. As such, the levels and drivers of public concern for climate change in each country are brought forward into the qualitative analysis as a potential explanatory factor for variation in party agreement. The fourth section of the chapter therefore complements the quantitative analysis by presenting primary material from forty-four interviews with policy-makers and policy-shapers in Australia and Norway, examining the ways in which

public concern influence the political parties. The interviews support the pattern identified in the quantitative analysis, and reveal that these patterns are at least observed by the parties themselves, if not acted on. The fifth and final section of the chapter discusses the implications of these findings and concludes.

6.1. Explaining variation in climate change concern

6.1.1. Country-level factors

A growing literature in environmental sociology seeks to explain variation in public concern for the environment and climate change amongst countries and citizens. This literature is based on the intriguing empirical finding that global concern about the environment has generally and substantially increased – a finding that also holds for developing countries (Gelissen 2007: 393). Yet, despite the general increase, significant differences among nations and people can still be observed, and the debate regarding the explanations for these differences has not yet been resolved.

At the country level, various factors have been identified as relevant in explaining variation in concern. For example, levels of wealth and economic growth (e.g. Inglehart 1990, Dieckmann and Franzen 1999, Kemmelmeier et al. 2002, Franzen 2003) and exposure or proximity to environmental problems (e.g. Gelissen 2007, Echavarren 2016) are commonly associated with higher levels of concern, whilst low population density (Jahn 1998) and having a sizeable industrial sector (Sciarini et al. 2007) have been identified as predictors of low levels of concern. Given that we are only comparing two countries in this chapter – and importantly countries that share significant similarities – we will only focus on individual-level factors. However, several individual-level factors that are examined relate to country characteristics that differ between the countries.

6.1.2. Individual-level factors

At the individual-level, the environmental sociology literature has identified several factors that help explain variation in levels of concern. Similar to at the country level, an individual's wealth and level of post-materialism have been linked to higher levels of concern (see Inglehart 1990, Kidd and Lee 1997, Franzen 2003, Kahn and Kotchen 2010). There is also evidence to show that individuals with higher levels of education and knowledge about the subject area are more likely to be concerned, or to be more willing to pay for solutions (e.g. Pietsch and McAllister 2010). Age is frequently identified as being relevant, with younger generations showing higher levels of concern and being more predisposed to supporting climate action than older generations (e.g. Dietz et al. 1998, Gelissen 2007). Given that Australia and Norway are both highly developed countries with well-off and well-educated populations, we would not expect these factors to explain the variation in concern between the two countries (though they will still be used as controls in the analysis, as there is likely to be variation within the countries). However, other individual-level factors relate more to the particular country context and therefore warrant further unpacking and investigation.

6.1.3. Identity, attachment and responsibility

Given that Australia is a large federal country, power and authority is spread more horizontally, and interests and values have a stronger regional concentration, than in smaller unitary states. Feeley and Rubin (2008) find that federalism really manifests itself in the absence of national norms and under circumstances of disagreement. Climate change is an issue for which national norms are lacking and which gives rise to stark disagreements, whether about responsibility and ambitions, or policies and implementation. Citizens in large federal countries might therefore have stronger

attachments to their states and local communities, seeing this as a larger part of their identity, and have stronger feelings of responsibility towards this level of government, than towards the federal or international level when it comes to the issue of climate change. Some citizens might therefore prioritise protecting state interests, such as employment levels in a state mining industry for example, rather than supporting national or international policies that would adversely impact their state or community. Such feelings of attachment and responsibility might be particularly pronounced in smaller rural communities, as environmental concern is typically higher in larger urban cities where the pressures of environmental problems are more visible and pressing (Jahn 1998), and also where people feel weaker attachments to each other. Differences in concern between urban and rural dwellers have previously been identified as significant in the Australian case (Pakulski et al. 2004, CSIRO 2011, Fielding et al. 2012), although we do not know whether this relationship differs to the Norwegian context. The first hypothesis to be tested is therefore:

H_1: People with stronger attachments to their state or local community will have lower levels of concern for climate change.

6.1.4. Political trust

There is closer proximity between voters and politicians at the state level than at the federal level. The closer proximity in the former case therefore entails higher levels of responsiveness, accountability and trust, whereas the distance between citizens and politicians at the federal level might mean that citizens trust decision-makers and decision-making less at this level than at the state level. Diminished political trust has been recognised in the environmental sociology literature as a reason for low

levels of citizen engagement in action for the improvement of the common good, a key example of which is the environment (Dalton 2005). Likewise, a high level of trust is commonly a significant predictor of engagement with climate change and environmental issues (Bickerstaff et al. 2004, Poortinga et al. 2006, Konisky et al. 2008, Lorenzoni and Hulme 2009, Vainio and Paloniemi 2011). The distance (geographical, and in some cases cultural) between citizens across states, and between citizens and federal politicians, might thus mean that the trust necessary to accept sacrifices or changes in behaviour in order to reach collective climate goals is harder to build in Australia.

Moreover, survey questions used to measure attitudes towards climate change policy typically ask respondents about their desired level of governmental action or spending to address the issue. A concern with such questions is therefore the possible conflating of attitudes about the *government* and preferences about *climate change action*, the latter of which may be conditional on how much trust the individual has in government (Klineberg et al. 1998). Thus 'controlling for public trust in government allows us to disentangle attitudes about government from those about environmental policy' (Konisky et al. 2008: 1067). It is therefore hypothesised that:

H_2: People with lower levels of political trust will have lower levels of concern for climate change.

6.1.5. Political interest and orientation

Besides citizens' identities and feelings of responsibility and trust, their interest in politics and their political orientation might also explain variation in concern. Inglehart (1990) claims that citizens who take an interest in politics tend to be more politically active, are more likely to participate in new social movements, and are

more likely to support 'new' or 'left-libertarian' politics such as green politics. Political orientation has also been identified in the environmental sociology literature as a stable predictor of environmental and climate change concern, with citizens displaying left-leaning tendencies being more pro-environmental than right-wing citizens (Dunlap et al. 2001, Olofsson and Öhman 2006, McCright and Dunlap 2011).

In fact, several studies have found that political orientation can moderate the effect of educational attainment on levels of concern (Krosnick et al. 2000, Hamilton 2008 2011, Malka et al. 2009, McCright and Dunlap 2011). McCright and Dunlap (2011), for example, found that the effects of educational attainment on self-reported understanding of global warming were positive for liberals and Democrats, but weaker or negative for conservatives and Republicans. The moderating effect of political orientation on education can be explained with insights from two political science perspectives – the 'information-processing theory' and the 'elite cues hypothesis'. The information-processing theory postulates that people's values, ideology and experiences form the foundation of how they perceive and interpret issues. With prominent expertise, scientific consensus and unambiguous information such predispositions naturally play a smaller role. However, in conditions of limited knowledge and ambiguous or divided information 'people process information about issues through a filter containing a range of variables relating to their predispositions' – chiefly among them political orientation (Wood and Vedlitz 2007: 556). Complementing this theory is the elite cues hypothesis, which becomes relevant when there is a bifurcated flow of conflicting information surrounding a controversial issue (Krosnick et al. 2000). In such situations people often rely selectively on information and cues provided by partisan leaders whom they like or trust, meaning that political orientation acts as a filter for new information and

learning opportunities (McCright and Dunlap 2011: 161). For example, Darmofal outlined how science could in some cases be superseded by ideological considerations: 'When political elites offered dubious policy cues, many citizens followed these cues rather than rejecting them in favour of more valid cues from opposition elites' (2009: 392). Climate change is a classic example of a 'controversial' issue where there is occasionally an ambiguous and bifurcated flow of information and cues from polarised elites, making people more reliant on their political orientation when processing information. The implication is that scientific information and science-based advocacy have minimal effects on public opinion in some cases, whilst people's level of political interest and political orientation do. Given the controversy surrounding climate change in public discourse in Australia, with both the media and political parties dividing over the issue, we might expect political interest and orientation to be particularly relevant in explaining variation in concern in this case.

H_3: People with lower levels of political interest will have lower levels of concern for climate change.

H_4: People who are more right-wing in orientation or who associate more strongly with the right-wing party will have lower levels of concern for climate change than people with left-leaning orientations or those who associate with the left-wing party.

6.1.6. Media habits

The different roles of the media in Australia and Norway – and importantly citizens' relationship to this media – might also help explain variation in concern. As pointed out by Boykoff and Boykoff: 'Mass media coverage of climate change is not simply

a random amalgam of newspaper articles and television segments; rather, it is a social relationship between scientists, policy actors and the public that is mediated by such news packages' (2007: 1190). Mass media is a key 'public arena in which social problems are framed and grow' (Hilgartner and Bosk 1988: 58) – one that can galvanise people into action or resign them to passivity (Bord et al. 2000). Importantly, media coverage of climate change varies starkly across countries (Weingart et al. 2000, Boykoff and Boykoff 2004, Carvalho 2007, Ryghaug et al. 2011, Painter 2013), which highlights how the mass media is not a neutral arena where (climate) science is given the prominence, or balance, it deserves. This cross-national variation, however, is perhaps the result of the countries' differing media systems.

Hallin and Mancini's (2004) '*Comparing Media Systems: Three Models of Media and Politics*' is a seminal study in the field of international comparative media system research. It provides a systematic and applicable approach to analysing differences and similarities in the relationships between media and politics across a range of countries. Based on the structure of countries' media markets, how politicised the national press is, levels of journalistic professionalization, and the role of the state and markets, they develop three models of media systems. These are the '*Mediterranean or Polarized Pluralist Model*', the '*Northern European or Democratic Corporatist Model*' and the '*North Atlantic or Liberal Model*'. The first model is characterised by low newspaper circulation and an elite-oriented press, high levels of politicisation, weaker professionalization, and strong state intervention. The second model is characterised by high newspaper circulation, a historically strong party press but a shift towards a more neutral commercial press, strong professionalization and institutionalised self-regulation, and strong state intervention and public-service broadcasting. The last model is characterized by medium-levels of

newspaper circulation, a neutral commercial press, strong professionalization though non-institutionalised self-regulation, and a market-dominated press.

With its higher level of marketisation, the latter model provides easier access for vested interests and climate sceptic voices to be heard. A key example is the Murdoch-owned press (prominent in 'North Atlantic and Liberal' countries such as the UK, US and Australia), which is known for its strong climate sceptic slant. This pattern is confirmed for Australia, with Painter (2013) revealing how climate scepticism is rife in the Australian press. The stronger presence of climate sceptic voices in such media systems might thus affect the attitudes of the public as well as political parties.

Moreover, McCright and Dunlap (2011) highlight how political polarisation has led to a heightened balkanisation of news media in, for example, the US. This development allows people to obtain their news from outlets that reinforce their political beliefs. Likewise, Lenz (2009) finds that individuals use media coverage to gauge the position of elites and interpret the news based on their party and ideological identification. Thus the disagreement and polarisation on climate change within a country can be reinforced by the mass media, and such reinforcement is more likely in marketised, i.e. 'North Atlantic or Liberal' media systems, such as in Australia.

However, it is not simply the media system that influences people's levels of concern, but importantly people's relationship to, and consumption of, such media. Surveys in developed countries reveal that mass media such as newspapers and television remained people's primary source of information during the time frame of the thesis' investigation (Project for Excellence in Journalism 2006). However, people's media habits have slowly been changing, with people turning from more traditional (e.g. print) media to 'new media' such as the Internet and social media to

source their news (Project for Excellence in Journalism 2016), and this is especially the case for younger people (e.g. Smith and Rainie 2008). Importantly, this differential media use has different impacts on people's political participation, with studies finding that internet use has a positive effect on various forms of political participation, whilst the relationship between the use of traditional media and participation are weak (see Bakker and Vreese 2011). This is because the Internet provides a more neutral arena for citizens to consume a variety of information, and from a wide array of sources, than if they sourced their news from the traditional press, which often emphasises a message suited for its core readership only, or is driven by the pressures of the market (such as advertising) or their ownership. Although the neutrality of the Internet and social media has been questioned in the aftermath of the British EU referendum and the 2016 US election, with 'post-truth politics' becoming a well-known term, such developments have only accelerated in recent years and have not been a significant issue during the time frame of the thesis' investigation (2001-2015). For the purposes of the current investigation, therefore, it is expected that the consumption of new media is related to higher levels of knowledge – and thus concern – about climate change, whereas we would expect the consumption of more traditional media to be associated with lower levels of concern. This then leads us to the final hypotheses:

H_5: People who consume more traditional media will have lower levels of climate change concern.

H_6: People who consume more 'new media' will have higher levels of climate change concern.

6.2. Levels of climate change concern in Australia and Norway

In order to measure levels of climate change concern in Australia and Norway, Wave 5 (2005-2009) of the World Values Survey (WVS) is used. This is the only cross-national survey that includes both Australia and Norway for the relevant time period. The survey was conducted in 2005 in Australia and 2007 in Norway. The WVS includes two key questions which relate to people's environmental or climate change concern. The question relating specifically to climate change[11], however, although capturing how serious people find the issue does not capture whether they think their country or they themselves should actually *do something about it* (e.g. their willingness to pay for a solution), or whether they feel they have a *responsibility to act*. The wording of the question thus only captures the 'valence' aspect of the issue, and fails to capture the trade-offs involved or its positional nature. As such, the decision is made to use the question relating to environmental concern[12]. Although a strong point was made in Chapters 2 and 3 as to the environment and climate change being substantively different issues, this question nonetheless remains preferable for our purposes as it captures the trade-off involved in truly caring about climate change and the positional nature of the issue (and climate change is subsumed within the definition of 'the environment'). The fact that people need to choose between

[11] V111: *How serious do you consider global warming or the greenhouse effect to be?*

[12] *V104: Here are two statements people sometimes make when discussing the environment and economic growth. Which of them comes closer to your own point of view?*

1) Protecting the environment should be given priority, even if it causes slower economic growth and some loss of jobs, or

2) Economic growth and creating jobs should be the top priority, even if the environment suffers to some extent

The variable was recoded, with prioritising the environment coded as '1' and prioritising the economy coded as '0'.

prioritising environmental protection and economic growth in this survey question thus more accurately reveals their true levels of climate change concern.

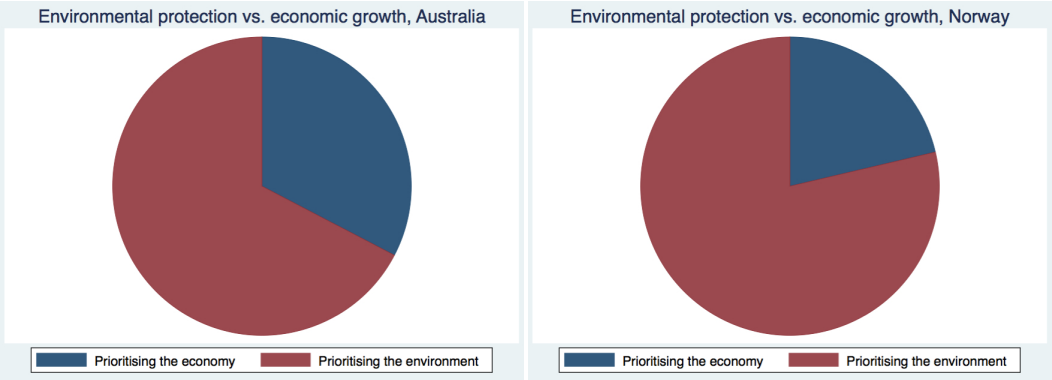

Figure 6.1. Levels of concern in Australia and Norway.

Examining these tradeoffs in Australia and Norway we find that 34.3% of Australians would prioritise economic growth over protecting the environment, with 65.7% prioritising the environment over the economy. In Norway only 21.3% of people would prioritise economic growth over the environment, whereas 78.7% would prioritise environmental protection. An independent-samples t-test was conducted to compare these levels of concern, and levels were found to be significantly lower in Australia (M=0.657, SD=0.47) than in Norway (M=0.787, SD=0.41), t(2293)=-7.091, p=0.000. A visualisation of the differences in concern can be seen above in Figure 6.1.

6.3. Drivers of public concern in Australia and Norway

Having established that levels of public concern for climate change are significantly lower in Australia than in Norway, we now examine the drivers of concern in each country, and test the hypotheses outlined by the environmental sociology literature in

order to explain this variation. Before doing so a review of the data and methodology is provided.

6.3.1. Data and methodology

As mentioned above, the fifth wave (2005-2009) of the World Values Survey (WVS) is used for the analysis. To measure the effect of people's identity, attachment and responsibility, four different indicators are used. Three of these indicators relate to the respondents' views about themselves and how they relate to the world[13], and consist of 4-point likert scales measuring how much the responded sees him or herself as a world citizen[14], a citizen of the nation[15], or as a part of their local community[16] respectively. These scales were re-coded such that higher values correspond to higher levels of attachment. The fourth indicator measures the size of the respondents' town[17].

To measure levels of political trust a composite measure was created based on four different indicators[18], namely the respondents' level of confidence in the government[19], in political parties[20], in parliament[21] and in the civil service[22]

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[13] '*People have different views about themselves and how they relate to the world. Using this card, would you tell me how strongly you agree or disagree with each of the following statements yourself?*' (WV5: 17).

[14] *V210: I see myself as a world citizen.*

[15] *V212: I see myself as part of the [X] nation.*

[16] *V211: I see myself as part of my local community.*

[17] *V255: Size of town*

[18] *'I am going to name a number of organizations. For each one, could you tell me how much confidence you have in them: is it a great deal of confidence, quite a lot of confidence, not very much confidence or none at all?'* (WV5: 11)

[19] *V138: The government (in your nation's capital)*

[20] *V139: Political parties*

respectively[23]. The effect of people's trust in political parties is also measured separately as we are particularly interested in the relationship between the public and parties.

To operationalise levels of political interest a measure of respondents' self-reported political interest is used[24]. This is a 4-point likert scale, although for our purposes the scale has been flipped, i.e. higher values correspond to higher levels of interest. To measure the respondents' political orientation two indicators are used. One is the respondents' self-placement on the left-right political divide[25], with higher values corresponding to more right-wing positions. The second indicator measures the respondent's party choice[26], although as we are particularly concerned with the largest mainstream left-wing and the largest mainstream right-wing parties – as these are the most crucial in creating cross-party consensus – the indicator is restricted to measure only whether the respondent would vote for one of these parties. This is coded as a dummy variable, with voting for the mainstream left-wing party coded as '0' and voting for the mainstream right-wing party coded as '1'.

Peoples' media habits are measured using three indicators – two of which capture people's use of traditional media whilst the third captures people's use of

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[21] *V140: Parliament*

[22] *V141: The Civil service*

[23] The composite measure is a summative scale created by the 4 likert scales which are then flipped, i.e. high values correspond to high levels of trust: 1 (none at all) – 16 (a great deal). Cronbach's Alpha 0.86.

[24] *V95: How interested would you say you are in politics?*

[25] *V114: In political matters, people talk of "the left" and "the right". How would you place your views on this scale, generally speaking?*

[26] *V231: If there were a national election tomorrow, for which party on this list would you vote?*

'new media'. They all indicate whether or not ('1' or '0')[27] the respondent used the daily newspaper[28], the radio and TV[29], or internet and email[30] during the previous week to learn what was going on in the world.

Lastly, the control variables are the respondents' income[31], levels of post-materialism[32], education[33] and age[34]. Descriptive statistics for all the independent variables can be seen in Table 6.1 and Table 6.2 for Australia and Norway respectively. A binary logistic regression is then run for both countries in turn.

6.3.2. Drivers of climate change concern in Australia

The model explaining variation in climate change concern in Australia is significant (X^2 (16, N=807) = 103.848, p<.000) and explains around 16.6% of the variation (Nagelkerke R^2). The results are listed in Table 6.3. As we can see, controlling for socio-economic factors, three variables are significant, namely people seeing themselves as a world citizen, people's trust in political parties, and people's party choice.

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[27] *'People use different sources to learn what is going on in their country and the world. For each of the following sources, please indicate whether you used it last week or did not use it last week to obtain information'* (WV5: 18)

[28] *V223: Daily newspaper*

[29] *V224: News broadcasts on radio or TV*

[30] *V228: Internet, Email*

[31] *V253: On this card is a scale of incomes on which 1 indicates the "lowest income decile" and 10 the "highest income decile" in your country. We would like to know in what group your household is. Please, specify the appropriate number, counting all wages, salaries, pensions and other incomes that come in.*

[32] *Y001: Post-materialist index*

[33] *V238: What is the highest educational level that you have attained?*

[34] *V237: This means you are [X] years old*

Table 6.1. Descriptive Statistics: Australia.

	Mean	Min.	Max.	Std. Dev.
Climate concern	0.657	0.00	1.00	0.474
World citizen	3.003	1.00	4.00	0.681
National citizen	3.459	1.00	4.00	0.564
Local community	3.206	1.00	4.00	0.580
Size of town	5.542	1.00	8.00	2.390
Political trust	8.875	4.00	16.00	2.206
Trust in parties	1.973	1.00	4.00	0.585
Political interest	2.601	1.00	4.00	0.861
Left-right orientation	5.569	1.00	10.00	1.928
Party choice	0.603	0.00	1.00	0.489
Newspaper	0.848	0.00	1.00	0.358
TV/radio	0.980	0.00	1.00	0.139
Internet	0.504	0.00	1.00	0.500

Table 6.2. Descriptive Statistics: Norway.

	Mean	Min.	Max.	Std. Dev.
Climate concern	0.786	0.00	1.00	0.409
World citizen	3.025	1.00	4.00	0.856
National citizen	3.737	1.00	4.00	0.503
Local community	3.547	1.00	4.00	0.621
Size of town	4.180	1.00	7.00	2.189
Political trust	10.006	4.00	16.00	1.929
Trust in parties	2.227	1.00	4.00	0.562
Political interest	2.835	1.00	4.00	0.738
Left-right orientation	5.603	1.00	10.00	1.892
Party choice	0.338	0.00	1.00	0.473
Newspaper	0.921	0.00	1.00	0.268
TV/radio	0.985	0.00	1.00	0.120
Internet	0.749	0.00	1.00	0.433

Table 6.3. Binary logistic regression results: Australia.

	Coefficient (β)	Odds ratio
World citizen	0.295	1.343 *
National citizen	0.234	1.263
Local community	-0.159	0.852
Size of town	0.002	1.002
Political trust	0.116	1.123
Trust in parties	-0.465	0.628 *
Political interest	0.048	1.050
Left-right orientation	-0.031	0.968
Party choice (Labor v Liberal)	-0.383	0.681 *
Newspaper	-0.243	0.784
TV/radio	0.869	2.386
Internet	0.218	1.244
Model X^2		103.848 ***
Nagelkerke R^2		0.166
N		807

*p<.05, **p<.01, ***p<.001

Note: controlling for income, post-materialism, education and age

People who see themselves as a world citizen are significantly more likely to be concerned about climate change, lending partial support to H_1. The other relationships pertaining to people's feelings of identity, attachment and responsibility fail to reach significance, however, although they all have the hypothesised direction or effect. There is seemingly a positive relationship between seeing yourself as a national citizen and climate change concern, whereas people who consider themselves as a member of their local community are seemingly less likely to be concerned about climate change. Likewise, people who live in larger towns are likely to have higher levels of concern than those who live in smaller towns. Collectively, these results thus tentatively lend support to H_1 and point towards the size and federal

structure of Australia impacting on people's identity, attachment and responsibility, which in turn affect their levels of concern for climate change.

As hypothesised, levels of political trust have a positive, albeit non-significant, effect on concern. However, trust in political parties has a significant negative effect, meaning that the more people trust political parties the less they are concerned with climate change. This runs counter to H_2, although it could be explained by the strong party polarisation on the issue in the country. If a party (in this case the Liberal Party) is negative towards the climate change issue, this could in turn affect the voters who trust them, and thus be driving the effect of this variable. However, overall, H_2 cannot be confirmed in this case.

Levels of political interest have a positive, yet insignificant, effect. This follows the relationship hypothesised in H_3, although cannot be confirmed. Likewise, the effect of people's political orientation is as expected, with right-wing respondents having lower levels of climate change concern than left-wing respondents, although again this failed to reach significance. However, people's party choice was significant, demonstrating that people who vote for the Liberal Party are significantly less likely to be concerned about climate change than people who vote for Labor, thus lending support to H_4. This demonstrates the importance of partisanship in explaining variation in climate change concern in Australia, and complements related research also discovering partisan differences in climate change attitudes in the country (Tranter 2011, Fielding et al. 2012).

Lastly, peoples' media habits were not significant, thus we cannot confirm H_5 or H_6. However, the direction of some of the relationships are as expected, with people who use traditional print media (newspapers) as their source of information having lower levels of concern, whereas people who use 'new media' such the Internet showing higher levels of concern. Contrary to expectations, however, using

traditional sources such as TV and radio had a positive effect. Though insignificant, these results tentatively point towards the negative effect the polarised print media has on public concern in Australia.

6.3.3. Drivers of climate change concern in Norway

Having examined the drivers of concern in Australia, we now turn our attention to Norway, and run the same model for this country. The model explaining variation in climate change concern in Norway is also significant (X^2 (16, N=393) = 33.002, $p<.01$) and explains around 13.1% of the variation (Nagelkerke R^2). The results are listed in Table 6.4. As we can see, controlling for socio-economic factors, only one variable is significant, namely people's trust in political parties.

As expected, people in Norway viewing themselves as a world citizen makes them more likely to be concerned about climate change, whereas viewing themselves as being part of the local community has a negative effect on concern. The variables measuring whether people view themselves as a national citizen and what size of town they come from have an opposite relationship to that hypothesised. However, none of these variables reached significance, thus we cannot confirm H_1 in this case. The fact that peoples' feelings of identity, attachment and responsibility are all insignificant in the Norwegian case, i.e. they do not differ substantially, whilst there are significant differences in the Australian case thus lends support to the argument that Australia's size and federal structure might be impacting on levels of public concern there.

Table 6.4. Binary logistic regression results: Norway.

	Coefficient (β)	Odds ratio
World citizen	0.233	1.262
National citizen	-0.537	0.584
Local community	-0.007	0.992
Size of town	-0.005	0.994
Political trust	0.034	1.035
Trust in parties	-0.827	0.437 *
Political interest	0.270	1.310
Left-right orientation	-0.200	0.818
Party choice (Labour v Conservative)	-0.036	0.964
Newspaper	-0.804	0.447
TV/radio	0.162	1.175
Internet	-0.258	0.772
Model X^2		33.002 **
Nagelkerke R^2		0.131
N		393

*p<.05, **p<.01, ***p<.001

Note: controlling for income, post-materialism, education and age

The effect of political trust is positive, as hypothesised, but this also fails to reach significance. Interestingly, the only significant relationship in the analysis is between levels of trust in political parties and concern. Similar to the Australian case, this has a negative effect, i.e. the more people trust political parties the less they are concerned about climate change. Thus we cannot confirm H_2. However, given the absence of a strongly negative party[35] and the strength of cross-party consensus in the country, the negative relationship between trust in political parties and climate

[35] Although the Norwegian Progress Party has declined to join the cross-party climate settlements (‘*klimaforlik’*) and have prominent climate sceptic members, their official party position nonetheless remains one of dismissiveness rather than overt hostility, as has been seen with the Australian Liberal Party and the Australian National Party.

change concern is surprising in the Norwegian case. However, pre-existing climate policies and high levels of consensus might mean that Norwegians trust the parties to deal with the issue, thus reducing the pressure on them as individuals to be concerned. Alternatively, the strong cross-party consensus in the country might have reduced the debate and salience of the issue, and thus individual levels of concern as well. With a lack of contestation and therefore salience, people might believe the issue is being dealt with successfully by the parties, thus reducing the pressure on them as individuals to care or act. Regardless of the ambiguity, the results in both Australia and Norway demonstrate that the link between voters and parties is important for public concern about climate change.

People's levels of political interest and their political orientation all have the hypothesised effect on concern in Norway, although none of the relationships is significant, meaning H_3 and H_4 cannot be confirmed in this case. Thus in Norway there are no significant differences between people and voters of the left and the right when it comes to climate change concern. This contrasts to Australia where party choice was significant, demonstrating significant differences between voters of the left and the right and revealing a polarised public.

Lastly, people's media habits were insignificant in explaining the variation, meaning we cannot confirm H_5 or H_6. As in Australia, the use of traditional print media (newspapers) is associated with lower levels of concern, whilst the use of 'new media' (e.g. the Internet) is associated with higher levels of concern, although the relationships are not significant. Also similar to the Australian case, the use of traditional sources such as TV and radio had an opposite, albeit insignificant, effect to that hypothesised.

6.3.4. Discussion

Australia and Norway share a significant number of similarities. As such, we would expect similar levels of concern for climate change in each country, and the drivers of that concern to be similar. The analyses conducted in this chapter reveal that although the populations of both countries are similar in several respects, their levels of concern for climate change nonetheless differ significantly, and this variation is driven by different factors.

Examining the drivers of climate change concern in Australia and Norway reveals the importance of three relationships. Firstly, people who viewed themselves as world citizens were significantly more likely to be concerned about climate change in Australia, whereas peoples' different feelings of identity, attachment and responsibility were not significant in Norway. This could potentially point towards the size and federal structure of Australia having an impact on concern for climate change as hypothesised in H_1. Secondly, in both countries the effect of levels of trust in political parties was significant, and in both cases it was negatively associated with concern. This is perhaps unsurprising in Australia where the Liberal Party has been dismissive or hostile towards the climate change issue, thus potentially rendering its electorate equally dismissive or hostile. However, given Norway's climate policy record and the high levels of cross-party consensus on the issue, this is a surprising result. Perhaps the effect of trust is context-specific, with the Norwegian publics' concern having been pacified by parties that are doing more, and agreeing more strongly, on the issue. Though ambiguous, the results nonetheless emphasise the importance of the relationship between parties and public concern, and thus warrant further investigation in the case study analysis. Thirdly, and importantly, the variation in concern is explained by partisanship in Australia, and reveals how the public are polarised on the issue along party lines, whereas in Norway partisanship

was not significant. Party politics and partisan theory are yet again emphasised as providing an important explanation for variation in concern, a finding that also warrants further investigation in the case study analysis.

Overall, the quantitative analysis of public concern for climate change in Australia and Norway has revealed that levels and drivers of concern differ between the countries, and as such we cannot fully 'control' for this argument in our investigation of the research puzzle. This finding is therefore brought forward into the qualitative analysis as a potential explanatory factor for variation in party agreement. The next section of the chapter thus presents primary material from forty-four interviews conducted with policy-makers and policy-shapers in both countries, and examines the ways in which public concern impacts on the political parties and party agreement on climate change.

6.4. Public concern for climate change and its' impact on political parties: Evidence from the controlled comparison of Australia and Norway

In both countries semi-structured interviews were conducted with relevant actors. Such actors included people in a position to create climate change policy and party agreement; people who were capable of influencing such policy-making and agreement; or people who had expert or inside knowledge of such processes. Interviewees therefore consisted of politicians, civil servants, ENGO- and fossil fuel industry representatives, and policy advisors or academics/experts. A list of interviewees in each country can be found in the Appendix (Appendix II). Twenty-two interviews were conducted in Australia in the period October – December 2015, and twenty-two interviews were conducted in Norway in the period January – May 2016.

The above analysis revealed significant differences in levels of concern for climate change in each country, and in particular emphasised the importance of two relationships in explaining this variation, namely people's feelings of identity, attachment and responsibility, and partisanship. Thus to test these findings and to examine whether these relationships can help explain variation in party agreement, the interviewees – and in this case particularly politicians – were asked questions relating to the public's view of climate change. Interviewees were asked whether they believed their voters and the public at large to be concerned about climate change, whether people vote based on the issue, and the potential reasons for such attitudes. Examining the parties' views of public concern is important, as regardless of the 'truth-value' of politicians' beliefs, their perceptions of public concern are crucial in catalysing action and ensuring issues remain on the political agenda (Kingdon 1995), and importantly in creating cross-party consensus. As unpopular policies can result in election- or leadership loss, a perception by politicians that public support is weak or divided may undermine their commitment to pursue climate change policies and party agreement (e.g. Pralle 2009).

Firstly, the Australian interviews revealed that the polarisation observed in the public is perceived by and mirrored in the political elite. The Coalition politicians interviewed did not believe the Australian public or their voters to be very concerned about the issue (Interview 1, 2, 3), with one Liberal MP claiming that his constituents, the Liberal Party and Australia as a whole are largely sceptical about climate change (Interview 2). These Coalition politicians also stated that people who are concerned about climate change mainly vote for the Labor Party or the Greens, not for any of the Coalition parties. In contrast, the Labor and Green politicians interviewed believed the majority of Australians and their voters to be concerned about climate change (Interview 4, 5, 6, 7, 8, 9, 10, 11). Although the number of

politicians interviewed is not representative, these findings nonetheless correspond with the pattern found by Fielding et al. (2012) in surveying Australian politicians' beliefs about climate change, and shows stark differences in the parties' perceptions of public concern. Politicians' perceptions of weak and polarised public support for climate change thus might be helping to fuel or perpetuate the party polarisation on the issue.

In contrast, the Norwegian interviews revealed that parties of both the left and the right perceived levels of public concern to be high (Interview 3, 4, 5, 6, 7, 9, 10, 11, 12). Conservative politicians claimed that climate change was 'absolutely' an issue their voters were concerned with (Interview 3), and that 'its an issue that's only becoming more and more important for our voters' (Interview 4). The parties on the left also underlined the high levels of concern in the public and amongst their voters (Interview 6, 9, 10, 11, 12). One Labour MP, for example, stated 'our voters are very taken up with this, and are only becoming more and more so (…) So there is a lot of positive engagement with this issue amongst the public' (Interview 10). For the Norwegian parties then, there is no perceived pressure from the public to be dismissive or adversarial on the issue. Thus contrary to the Australian case there is no public pressure to divide over the issue, which helps to explain or contextualise the high levels of cross-party consensus in the country.

Secondly, in addition to the perceived division on climate change along partisan lines, the Australian interviews also highlighted the perceived variation in concern across regions and groups (Interview 1, 3, 4, 5, 9, 13, 16, 18). The previous deputy Prime Minister and ex-leader of the rural National Party (1999-2005), John Anderson, argued that the people who vote based on climate change are 'middle-class, upper income level, living in inner suburbs', and not people who would traditionally vote for his party. He complained that this 'chattering elite' and 'would-

be global Samaritans' have little understanding for rural concerns and the jobs that create the backbone of the Australian economy. This difference in attitude, he holds, has created a divide amongst the population: 'There is in this country a rapid emergence of a resentment – at the lower end a suspicion, at the deeper end a resentment – of the patronising attitude of what might be called our "intellectual elites" and what might be called the "progressives"'. Moreover, he argued that 'the progressives have a deeper commitment to things like the environment and they see the working and the lower classes as the problem' (Interview 1). Similarly, a Liberal MP argued that the inner-city suburban electorates were far more concerned about climate change than electorates in rural and regional areas (Interview 3). Even the left-wing politicians interviewed underlined the regional variation in concern, as although the Labor politicians stated that Australians and their voters largely care about climate change, they nonetheless emphasised that concern varied depending on the region and group of voters (Interview 4, 5, 9). Labor Senator Kim Carr argued 'there's a more regional focus to public attitudes to climate change. But you're seeing now increasing numbers of people in rural areas understand that they've got to deal with this issue as well' (Interview 9). This was underlined by another Labor MP:

> [public concern for climate change] varies depending on the group to whom you speak. Amongst the inner-city public sector workers it's very different to an appreciation of rural and provincial workers working in, say, the cattle industry or working in mining. (…) We have a very big country where people work in all manner of circumstances, from very cold and wet circumstances in Southern Tasmania, through to hot and wet circumstances

> at Borroloola, through to dry and even drier circumstances in the centre of the country. Wherever you are, your perspective is changed.

The Norwegian interviews, by contrast, revealed no such perceived regional or group differences. In fact, politicians from the rural and agrarian Centre Party, whose ideological position it is to protect such interests, emphasised the high levels of concern in the public (Interview 6 and 7), and one MP stated it was the second-most important issue for their voters after district politics (Interview 7). Thus the comparative case study evidence seems to support the quantitative analysis in that people's feelings of identity, attachment and responsibility in Australia impact on their levels of climate change concern, which in turn influences the considerations of political parties and consequently the prospects of party agreement. Thus the size and federal structure of Australia might be negatively impacting the possibilities for cross-party consensus in comparison to smaller and unitary Norway.

Overall, the interviews support the pattern identified in the quantitative analysis, and reveal that these patterns are at least observed by the parties themselves, if not acted on. Politicians in Australia are aware of the partisan divide amongst the public and the regional variation in concern, whilst Norwegian politicians observe high levels of concern across the political spectrum and do not perceive any regional variation. With a perceived lack of pressure to be acting on the issue by the conservative Coalition in Australia, and with a perceived pressure to do so by all the political parties in Norway, these differences could therefore form part of the explanation for variation in party agreement on climate change.

6.5. Conclusion

The chapter has revealed how public concern for climate change is significantly lower in Australia than in Norway. This is consequently a factor that cannot be 'controlled for' in the overall argument of the thesis explaining variation in party agreement on climate change. The binary logistic regression analyses examining the drivers of concern in each country, although quite basic and not very powerful, have identified two relationships as being particularly relevant in explaining the lower levels of concern in Australia. Firstly, political partisanship significantly helps explain the variation in concern in Australia, and the issue is polarised along party lines in the public, with Liberal voters being significantly less likely to be concerned about climate change than Labor voters. This result supports the argument in Chapter 3 that climate change is not a valence issue, and feeds into this debate. Secondly, people's feelings of identity, attachment and responsibility played a role in determining Australian's levels of climate change concern, with people who viewed themselves as world citizens being significantly more likely to be concerned about climate change. In contrast, such attitudes were not relevant in the Norwegian case, thus tentatively pointing towards the size and federal structure of Australia impacting on people's concern for climate change.

These results were therefore brought forward into the qualitative analysis, where the relationship between public concern and political parties and party agreement were examined. Interviews with forty-four policy-makers and policy-shapers in both countries revealed that the patterns of concern identified in the quantitative analysis were also observed by the politicians themselves, thus supporting the findings of the quantitative analysis and underlining how these relationships could indeed be impacting on the parties' positions and the prospects of party agreement. Politicians in Australia were aware of the partisan divide amongst

the public and the regional variation in concern, whilst Norwegian politicians observed high levels of concern across the political spectrum and the country. Thus a perceived lack of pressure to act on climate change by the Australian Coalition, and a perceived pressure to do so for all the parties in Norway, could therefore help explain why the issue is polarised in Australia whilst there is strong cross-party consensus in Norway.

Although analysing the relationship between public concern and political parties runs into the 'chicken and egg' problem, i.e. it is hard to establish the direction of causality (whether public opinion influences political parties or whether the parties themselves shape public opinion by providing cues), there nonetheless seems to be a correspondence between the views of the voters and the parties, and this variation in concern across countries could be critical in explaining the variation in party agreement. The Australian public are more hostile and divided on the need for ambitious climate policies than the Norwegian public, and given the centrality of public opinion for the policy process this could naturally be a contributing factor to the variation in party agreement.

However, the recent Paris Agreement underlines the importance of nations themselves creating and implementing climate policies to avoid dangerous climate change. Given the significance and scale of the policies and change needed, political parties will have to play a key role in linking the issue of climate change to the public, and shape attitudes by convincing the electorate of the need for such policies. As Tranter points out: 'While divided political elites contribute to divisions in public opinion, united elites may hold the key to action on critical global issues such as climate change. Shifting public opinion on climatic change requires constructive and unified elite responses at the national level. In the absence of agreement among national political leaders, attempts to reach global consensus over climate change

action are unlikely to succeed' (2011: 93). Given the lower and politically divided levels of climate change concern in Australia, Australian parties clearly have some way to go in uniting and convincing the public of the need for ambitious climate policies. A key question is thus why the Australian parties are failing to take on this task. Equally, as this chapter has demonstrated, public opinion is not shaped in a vacuum or solely by political parties, but is influenced by other, wider, contextual and institutional features as well. The next chapter therefore explores how the differing institutional characteristics of Australia and Norway impact on party agreement for climate change.

Chapter 7: What facilitates and hinders the creation of party agreement on climate change? Evidence from Australia and Norway

Introduction

The previous chapter revealed how levels of public concern for climate change differ significantly between our case study countries, and how Australian parties are failing to unite and convince voters of the need for ambitious climate policies in comparison to Norwegian parties. Chapter 4 outlined how various institutional features can influence this variation in party agreement. To recap, the chapter found that the presence of fossil fuel interests in a country will have a polarising effect if combined with multiple veto points, pluralist institutions and a majoritarian electoral system, but that it will not have a polarising effect if combined with fewer veto points and corporatist institutions. Countries with few veto points, corporatist institutions, and a proportional electoral system experience high levels of cross-party consensus on climate change. These findings thus challenge the common assumption that consensus will automatically be difficult in states with fossil fuel dependency, and demonstrate that the institutional context is crucial, as it moderates the effects of fossil fuel interests and shapes the political decisions of parties. However, Chapter 4 also pointed out how the fsQCA analysis was 'broad brush' – with a medium-N sample and a methodology only capable of distinguishing explicit connections between conditions and an outcome, and the consistency and coverage of such connections. As such, the case was made to complement the fsQCA analysis with a smaller fine-grained qualitative analysis, as this will enable the testing of the findings of the fsQCA analysis and provide a more nuanced insight into how precisely the various conditions interlink and moderate each other's effects, and, importantly, how

they influence the outcome. Moreover, as a multi-level analysis is not possible in this case (see section 3.5.), an in-depth qualitative analysis also allows us to examine the relative importance of these country characteristics in comparison to the party characteristics that were analysed in Chapter 3 in explaining the variation in party agreement. Ideology was identified as significant in explaining variation in parties' climate change salience in Chapter 3, thus by examining the effect of both types of characteristics in the qualitative and comparative analysis, we are able to arrive at an understanding about which factors play a larger role. Lastly, the qualitative comparison will also allow us to assess the impact and relative importance of societal factors such as public concern on parties in comparison to institutional features, as well as their interaction.

Examining the above relationships is consequently the aim of the chapter. By reviewing material from the forty-four interviews conducted with policy-makers and policy-shapers in Australia and Norway conducted in the time period 2015-2016 (see Appendix II for a list of interviewees), the current chapter compares how ideological, institutional and societal features interact to facilitate or hinder party agreement on climate change. The first section examines how the presence or absence of veto points in Australia and Norway moderates the effect of fossil fuel interests and provides different incentives for the political parties. The second section then compares how the different institutional governance systems in Australia and Norway influence party agreement, before the third section assesses the impact of the countries' different electoral systems. The fourth section discusses the findings before the final section concludes. The in-depth comparative case study is shown to support the findings of the fsQCA analysis, and the interviews shed light on the mechanisms through which the various institutional features interact and moderate each other's effects to influence party agreement on climate change. The interviews

reveal that both societal and institutional features interact to influence the outcome, although institutional features are shown to have a relatively larger impact on parties' climate change positions, emphasising the importance of country characteristics and the organisational structure of parties in explaining variation in party agreement across countries. The importance of these institutional and organisational features also contextualises the findings of Chapter 3, and indicates that variation in party agreement on climate change is more an outcome of party strategic behaviour within the context of domestic party competition than ideology or societal factors. As such, the chapter makes a significant contribution to both the comparative climate policy literature and the party politics literature.

7.1. Fossil fuels and veto points

Both Australia and Norway are major fossil fuel exporters, but the interviews demonstrated how the presence or absence of institutional veto points moderate the effect of such interests and provide different incentives for the political parties. The Australian interviews revealed the ways in which the presence of veto points interact with fossil fuel interests to affect right-wing politicians' attitudes towards climate policy, making consensus harder to achieve. In contrast, the Norwegian interviews revealed that the lack of veto points has resulted in close relationships between various levels of government, making it easier to overcome inter-regional differences in interests or values. Collectively, the case studies thus support the findings of the fsQCA analysis, and importantly provide insight into the ways in which these institutional features affect party agreement on climate change.

7.1.1. Fossil fuels and veto points in Australia

Reflecting the impact of veto points, the Australian interviews highlighted how state- and constituent interests make it harder to create consensus on ambitious federal climate policies. As outlined in the previous chapter, the Australian interviewees emphasised the strong regional focus to public attitudes to climate change, with marked differences in attitudes between groups and in different parts of the country (Interview 1, 3, 4, 5, 9, 13, 16, 18). What the interviews also revealed, however, is that this regional variation in attitude significantly impacts parties – and particularly parties of the right – incentivising them to act as veto points for more ambitious federal climate policies that would adversely affect their state or constituent interests (Interview 1, 3, 4, 7, 9, 12, 15, 20). According to a representative from an influential ENGO (Interview 15) the regional and fossil fuel-based attitudes across the country have a big impact on politicians, and significantly form the basis of their stances on climate change. As an exemplification, John Anderson (previous deputy Prime Minister and ex-leader of the National Party 1999-2005), admitted that the nexus between constituency and federal politics was an important reason why his own party had struggled to have a decent debate on climate change: 'Remember that many of the people that my own party represents are quite poor, and so increased electricity costs hurt them. They're in need of jobs, economic slowdown hurts them, and many of them depend on the resources sector for their jobs' (Interview 1). Mirroring this, a Liberal MP highlighted how protecting constituent interests was seen as paramount, thus potentially acting as a barrier for creating consensus across levels of government: 'I mean that's your job! You must represent your constituency. You know, you have a view for Australia and the broader interest, but your primary job is trying to deliver a better world for your constituents' (Interview 3). It is perhaps unsurprising then that Greg Combet (Minister for Climate Change in the second

Gillard Ministry) argued that politicians seeking to protect regionally-based fossil fuel interests were 'absolutely a large part' of the reason why Australia was so polarised on the issue (Interview 7). Thus the regional differences in attitudes – and especially right-wing politicians responding strongly to such attitudes and acting as barriers for the adoption of more ambitious federal policies – make it harder to create consensus on climate change in the Australian case.

Moreover, although certain states were described as front-runners on climate policy, the interviewees highlighted that most states were failing to push or incentivise the federal government to do more on climate change, and in some instances acted as obstacles, thus again emphasising the role of veto points in hindering the creation of party agreement on climate change. A representative for The Wilderness Society (TWS), an influential ENGO, argued that due to mining and forestry interests, states like Tasmania, Queensland and Western Australia acted as 'huge barriers' to the creation of climate policy and the building of consensus (Interview 12). Likewise, a Labor MP argued that: 'state governments in particular are into "boosterism" – they like to promote economic activity in their state, almost no matter what it is' (Interview 6). This was echoed by a senior civil servant, who argued that although states had proved they could move the government on climate issues (as demonstrated during the latter period of the Howard government), this was more the exception than the rule: 'In every field of policy, states are looking out for themselves, and the Commonwealth has really very little except the taxation power to deal with them to try to persuade them to come together and do things in a harmonious way' (Interview 20). Similarly, John Anderson pointed out that the only input state branches of the party had on federal climate policy was: 'Don't you hurt our economy, don't you shut our industries down' (Interview 1). Thus the marked differences in attitudes to climate change due to the regional concentration of fossil

fuel interests – and especially right-wing politicians understanding their role as the protectors of such constituent interests – interact with a lack of bottom-up pressure or hostility from states, meaning that cross-party consensus on climate change has been difficult to achieve.

7.1.2. The effect of having few veto points on fossil fuel interests in Norway

We would expect Norway, like Australia, to be characterised by regional variations in public attitudes towards climate change. The western regions around Bergen and Stavanger are heavily dependent on the fossil fuel sector for employment levels, and being a similarly sparsely populated country one would expect rural voters to be averse to climate policies that disproportionately affect them (for example, transport policies regulating or taxing the cars on which they depend). However, as was seen in the last chapter, no such regional variation in concern is observed. Furthermore, the interviews showed that the Norwegian municipalities and counties (*kommuner* and *fylker*) acted more as drivers of ambitious climate policies than as barriers (Interview 3, 4, 5, 6, 7, 8, 9, 10, 13, 21). Given that Norway is a unitary state, power and authority is diffused less horizontally than in the Australian case, and there are fewer veto points. As such, the municipalities and counties lacked sufficient power and resources to achieve what they wanted on certain climate change issues, and were consequently pushing the government by demanding such means, for example, in order to regulate emission standards for public transport, or to implement combustion charges in cities (Interview 4, 5, 6, 21). Although most issues at the regional and local level had co-benefits associated with their solutions (for example the reduction of local air pollution), the interviewees nonetheless underlined that the progressive policies being proposed by municipalities and counties were strongly influenced by the high levels of public concern, and the proximity of local and

regional politicians to voters (Interview 3, 4, 5, 6, 10, 21). As one Conservative MP argued:

> I feel politicians at the local level are a step ahead of politicians at the national level when it comes to climate politics, because much of the work happens in the municipalities. A large part of climate policy is about creating good and sustainable public transport for example. (…) So I think that climate change is a larger part of a lot of what they do in their day-to-day work, whilst here [at the national level] the work becomes more divided into the 'policy silos' the higher up the system you come' (Interview 4).

This is echoed by another Conservative MP: 'It's noticeable that local politicians, especially in cities, are keen to do more locally on climate change. They notice that they have more to do with voters in their day-to-day lives, for example in delivering services, and they get instant feedback on a lot of what they are doing. (…) So you'd think that the grassroots would be digging their heels in, but actually there's a very good dynamic between national politicians concerned with larger national questions and local politicians who recognise that all emissions are local' (Interview 5). The ambition at the regional and local level naturally underlines the positive effect of public opinion, as highlighted in the previous chapter, but importantly demonstrates the positive impact that local demands for resources and action can have on incentivising national politicians to take the issue more seriously. Thus whereas veto points in Australia mean the states act as barriers to consensus, a lack of veto points in the Norwegian case – importantly coupled with the effect of high levels of public concern – mean that municipalities and counties incentivise consensus.

Furthermore, the ambition at the local level in Norway acts as a useful 'testing ground' for national policies, with several interviewees pointing out how front-runner municipalities such as Oslo had shown what was possible (Interview 4, 5, 6, 10, 21). For example, a Conservative MP argued that: 'Very often national politicians think "no, this will be expensive and difficult, and we can't legislate things that will be impossible to achieve," but then they see municipalities actually doing and achieving it on their own. So it makes them think "well if they can do it, then we'll be able to do it too"' (Interview 5). Although Australia also has ambitious and front-runner states (e.g. Victoria, NSW and ACT), the key difference in the Norwegian context is the uniformity with which the various regions support and incentivise climate policy. The uniformity of regional ambition on climate change and the absence of any 'laggard regions' (as in the Australian case) is perhaps the result of the uniformity of the political parties' stances on climate change across levels of government. Whereas the Australian politicians interviewed admitted to not consulting state branches or local members on climate policy and emphasised their differences in opinion, Norwegian politicians emphasised the close links between the national and local branches, how important local politicians were in the development and formulation of national climate policy, and how the various branches of the party were in agreement on the issue (Interview 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14). As one Labour MP put it: 'I feel we speak as one team when it comes to climate change (…) We're a movement, so our policies are created from the interaction of the central and the local (…) and we largely use our local politicians in the process of policy-making' (Interview 10). Even the agrarian Centre Party, which places the protection of rural interests at its ideological core (e.g. 'I think we more than any party in the *Storting* will be concerned that what we legislate doesn't have a negative impact on rural areas' – Interview 8), admitted to maintaining strong party lines on

climate change despite some disagreements: 'In any party there'll be disagreements on how we balance climate change with the economy and employment (…) and we have debates and votes at national conferences where issues are decided by a very tiny majority in the end, but then that decision becomes quite determining for the parliamentary group' (Interview 7). Thus in contrast to the Australian case where the presence of veto points makes the balancing act of protecting constituent interests versus national concerns more acute for politicians, the close relationship between national, regional and local politicians in Norway as a result of being a unitary state makes it easier for the national parties to make members across levels of government toe the party line, and thus more efficiently overcome interregional differences of interests and values on climate change.

The party unity across levels of government is further strengthened by the way in which Norwegian politicians conceive of their role as elected representatives and the ways in which they think about climate change. Whereas the Australian politicians interviewed emphasised the importance of protecting constituent interests (in line with a 'delegate' model of representation) and saw climate change largely as an economic challenge, Norwegian politicians emphasised the importance of thinking about the greater good of the nation (in line with a 'trustee' model of representation) and saw climate change as an economic opportunity (Interview 3, 4, 5, 6, 7, 8, 10, 11, 13). As an exemplification, a Conservative MP argued that even though voters didn't always rank climate change as one of their top most important issues, 'it's not just about what the voters think or want – it's about us having to take responsibility for the world we're creating for future generations. Sometimes you just can't go "where are the voters, I have to chase them," but you have to go "where are the voters, I have to lead them." It's an education process that goes both ways' (Interview 5). Further, a Centre Party MP argued that ambitious climate change

policy did not necessarily entail economic challenges for rural areas, and as such it was not hard to balance the role as a national politician with protecting constituent interests: 'I think climate policy has demonstrated its potential for green growth, and green growth can be spread to rural areas, so I don't see them as opposites. Quite the contrary, I think climate politics provides a lot of opportunities for growth, also in rural areas' (Interview 7). Although politicians' conceptions of their role as elected representatives is naturally bound up with the electoral system, with plurality or majoritarian systems perhaps emphasising the importance of protecting constituent interests in order to be re-elected more so than PR systems, these differing conceptions also show how the presence of veto points in Australia can create 'delegate' attitudes by making the consequences and accountability of decision-making more acute for veto-players, whereas a lack of veto points in Norway perhaps leads to more 'trustee' attitudes. Importantly, such trustee attitudes make it easier to create stronger party unity across levels of government in Norway, thus making the creation of consensus easier.

7.2. The Institutional governance system

The Australian interviews made it clear that the relationship between fossil fuel interests and veto points described above was strengthened due to the institutional governance system. The pluralist features of Australian politics award the fossil fuel industry a privileged position in terms of both resources and access to policy-makers in comparison to the ENGOs. In Norway, high levels of public concern and a culture of taking the environment seriously created by path-dependence from strict environmental regulations in the 1970s and 1980s (which in turn came out of corporatist relations) have created a constructive fossil fuel industry. Importantly, however – and emphasising a key feature of corporatist systems – the interests of the

fossil fuel industry are counterbalanced and challenged by a powerful and active environmental lobby, which moreover interact with and communicate successfully with the fossil fuel lobby in an institutionalised way, thus limiting contestation and debate. Combined with generous welfare provisions, these features of the Norwegian institutional governance system are shown to facilitate party agreement on climate change. Thus both case studies again support the findings of the fsQCA analysis in Chapter 4, and also shed light on the ways in which these features interlink and affect the outcome.

7.2.1. Australian pluralism

Underlining a common feature of pluralist systems, the Australian interviews highlighted the strong and privileged position of the fossil fuel lobby in comparison to ENGOs (Interview 4, 7, 10, 11, 12, 13, 14, 15, 16, 17, 20, 21). Clive Hamilton, a member of the Climate Change Authority (CCA)[36], argued that although most fossil fuel companies in Australia have shifted their position on climate change due to the growing momentum globally to tackle the issue, they nonetheless only 'half go along with it' in public and 'behind the scenes still engage in blanket denial and resistance' (Interview 21). Similarly, Greg Combet outlined how opposition from emissions-intensive businesses was the 'main challenge' for Labor when developing its climate change policies: 'There were massive challenges, and outright hostility and opposition from many sectors of the business community, particularly the fossil fuel industries. The coal miners, the coal mining companies, the steel-making and aluminium smelting companies, all the emissions intensive industries, power companies, coal-fired power generation – by and large they were exceptionally

[36] The CCA provides independent expert advice on Australian Government climate change mitigation initiatives.

hostile' (Interview 7). The same hostility was reported by Professor Will Steffen, a member of the Australian Climate Commission[37], as he lamented that the Minerals Council of Australia 'attacked me personally, they attacked the Climate Council and so on, just defending their industries' (Interview 14). Likewise, a representative from an influential ENGO said: 'The peak bodies like the Minerals Council and the APPEA (the gas body) are pretty unreasonable – they're pretty shocking to be honest' (Interview 15).

Importantly, the hostility from some fossil fuel companies towards more stringent regulations or targets is combined with easy access to and power over decision-makers (Interview 10, 12, 13, 15, 16, 17, 20, 21). Clive Hamilton (CCA) argued that the fossil fuel lobby's access was 'very strong', and called them 'the most powerful lobby in Australia': 'They're very, very effective – they spend a lot of money and they get the best lobbyists' (Interview 21). Even the CEO of the Australian Industry Greenhouse Network (AIGN)[38], Alex Gosman, admitted that the fossil fuel industry, and especially the Minerals Council, had engaged in 'really extensive campaigns with lots of politicians' (Interview 16). Furthermore, a representative from the Construction, Forestry, Mining and Energy Union (CFMEU) argued that political parties in Australia develop their stances and policies on climate change 'based on how they are lobbied' – 'basically the views given to them by lobby groups and vested interests' (Interview 17). The Green MP, Adam Bandt, also outlined a similar relationship:

[37] The Climate Commission, now the not-for profit 'Climate Council', was an independent body established in 2011 by the Australian government to communicate reliable and authoritative information about climate change to the public.

[38] The AIGN is an industry association representing large emitters (responsible for around 60% of Australian emissions).

> They've [the fossil fuel lobby] got a lot of money, and they can afford to donate to political parties. And they can threaten to unseat members of parliament – or in some instances (as we found when we were debating the mining tax) prime ministers – if they don't do what they want. So as a result, many members of parliament live in fear of a campaign being run to unseat them. And, conversely, they're quite happy to receive donations from these companies. So one senator got up during a debate in parliament proudly wearing a vest that said 'Australians for coal' which the coal lobby had prepared (…) for those members of parliament that they felt had advocated for them or were (some might say) 'in their pocket'. So it's the equivalent of a football player wearing their sponsor's logo. So in many respects it's that blatant. It's bankrolling and the threat of punishing (Interview 10).

The power of the fossil fuel lobby stands in stark contrast to that of ENGOs (Interview 11, 12, 13, 15, 20, 21). A central concern of all the ENGOs interviewed was limited funding and the impact this had on the effectiveness of their lobbying. A representative from Friends of the Earth (FoE) pointed out that ENGOs needed resources in the capital, Canberra, in order to be effective at the federal level, but 'many of the green groups don't have those.' With a lack of such resources FoE had 'focused downwards on the state level' which put them at a comparative disadvantage to the fossil fuel lobby (Interview 13). Likewise, a representative from an influential ENGO said 'we just put out a story to the media last week basically saying "help, we're running out of money!"' (Interview 15). The representative from TWS claimed the 'hostile' and 'deeply anti-conservationist, pro-business, pro-coal, pro-fossil fuel' Abbott government had tried to remove the tax-deductibility status of

ENGOs in a bid to limit their funding and debilitate them (Interview 12), and the FoE representative, agreeing, claimed this was done 'at the behest of the mining industry' (Interview 13). The picture that is painted is thus one of limited funds and effectiveness of ENGOs relative to the fossil fuel industry, highlighting a common characteristic of pluralist systems.

However, the access and influence of ENGOs varies and fluctuates across parties and time. Although an ENGO representative said they had 'reasonably good' access to the 'most obviously relevant parts of government', there were nonetheless 'parts of government that just don't respond to requests, who just aren't responsive. (…) If you think about the 40% of the Coalition that voted for Abbott in the last leadership race, that's an indication of the sort of people who are unlikely to want to hear from us about climate change' (Interview 15). FoE maintained there had been a decade of close engagement with decision-makers during the Howard era, which was 'all lost during the Abbott government' (Interview 13). The environment movement had consequently 'realised the need to build power within the next four to five years to have serious influence federally,' as the representative claimed 'we'd be kidding ourselves to say that we have significant influence at present' (Interview 13). However, a senior civil servant from the Howard era even questioned the influence of ENGOs during that period, arguing they did not get a hearing: 'I mean, this was the Howard government, and so everybody adjusted their aspirations accordingly' (Interview 20). Yet, the civil servant did hold that there had been periods where ENGOs were regularly consulted, for example during Robert Hill's period as Environment Minister (1996-2001). ENGOs' access and influence thus seems to be dependent on individual parties and minister's initiative, and not institutionalised in any regular or uniform way, highlighting another common feature of pluralist systems.

7.2.2. Norwegian corporatism

The Norwegian petroleum industry is considerably more constructive when it comes to climate policy than its Australian counterpart, making the creation of party agreement easier to achieve. Although it shows no signs of foregoing the benefits of production or expansion, it is nonetheless supportive of strict regulations and ambitious emissions targets. According to a number of interviewees, this constructiveness is the result of high public concern for climate change, supporting the findings of the previous chapter, combined with the fact that the industry sees strict targets and regulations as giving them a competitive advantage (Interview 3, 4, 10, 19, 20). As a Conservative MP pointed out: 'They see that they're profitable despite strict regulations and a high CO_2 price as a competitive advantage, as it means they'll be better equipped to meet the future when companies in other countries will also face these regulations' (Interview 4). Idar Kreutzer (Co-Head of the Government's Expert Commission on Green Competitiveness) argued that low oil prices and high public concern means there will be strong pressure for governments not to open up new oil fields, and so the petroleum industry sees the need to be in a constructive dialogue with policy-makers, both to survive and also to be 'in the loop' in order to influence future regulations (Interview 20). Likewise, the Conservative Deputy Minister of Climate and Environment, Lars Andreas Lunde, argued: 'Statoil has realised over the last years that they have to be concerned about climate change – both because they'll need more than one foot to stand on in the future, and because of the need to maintain a good reputation' (Interview 3). Similarly, Hans-Christian Gabrielsen from The Norwegian Confederation of Trade Unions (LO) highlighted Statoil's need to create legitimacy for itself and 'its right to life' amongst parties, unions and the public (Interview 19). A Conservative MP echoed this, arguing that the petroleum industry sees the need to have a good

'image': 'Most young people today take climate change seriously, so if they're going to recruit people to work in their industry they have to sell themselves as a business of the future' (Interview 4). These sentiments are expressed by the industry itself, with one industry representative saying they would never partake in ferocious lobbying, as the industry is 'keen to be seen as being part of the solution and not the problem' (Interview 17). Likewise, another industry representative pointed out that high public concern for climate change impacts on the industry's attitude as well: 'It's part of Norwegian culture to care about the environment, and the people who work in the petroleum industry are Norwegians, so we have the same attitudes and values as everyone else' (Interview 18).

However, most of the interviewees highlighted that the above attitudes were also the result of path dependence, and the fact that strict regulations and a CO_2 price had existed for decades (Interview 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 19, 20, 21, 22). As one Labour MP observed: 'I think they [the petroleum industry] have good experiences with the environmental regulations from the 70s and 80s and the partnerships created between state and industry. And the industry managed to solve those problems, so it's created a culture of "being part of the solution"' (Interview 10). Likewise, a Conservative MP argued that 'the petroleum industry knows very well the regulations it has to operate under, and that's settled politics, so they don't see the scope to affect or change things by lobbying' (Interview 4). The power of path dependency and 'settled politics', however, arises from the tradition of having a close relationship between state and industry, which is a common feature of corporatist states. A Centre Party MP argued that the petroleum industry was constructive on climate change because of the way the state governs and intervenes:

> We do govern a lot of Norwegian oil and gas production – it's you and me who own it more or less. So instead of having a few super-rich oil sheiks that own the companies and run them behind closed doors, we have debates in the *Storting* and in the media. And the result is a completely different societal understanding, and they [the petroleum industry] understand their social responsibility in a completely different way than they would in Saudi Arabia for example (Interview 8).

Thus the close relationship between state and industry has the benefit of increasing corporate social responsibility on the part of the petroleum industry, making their lobbying less aggressive and improving possibilities for creating party agreement on climate change. Moreover, the close relationship reduces the informational asymmetry between industry and policy-makers, making it harder for the petroleum industry to exaggerate claims about the negative impact of climate policies.

However, the interviews revealed that it is not simply the close relationship between state and industry that creates a constructive dialogue on climate change, but importantly the close relationship between these stakeholders and ENGOs. In contrast to Australia, Norwegian ENGOs receive state funding and thus have more resources at their disposal. Their high levels of activity and effectiveness at lobbying were noted by several interviewees (Interview 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 21). For example: 'What surprised me the most when I became an MP was that I was expecting the business and fossil fuel lobby to be very strong, but that isn't correct at all. The people who come here are the ENGOs – they're the ones who lobby the most and are the most professional. They have a huge apparatus. (…) They're here all the time and we get weekly requests for meetings' (Interview 4). Similarly, several interviewees pointed out how ENGOs were more active at

committee hearings, and were almost over-represented (Interview 3, 4, 15, 16, 17, 18, 19, 22). Importantly, not only is the ENGO lobby strong, but their relationship to and dialogue with other stakeholders is also better than in the Australian context. Although multi-stakeholder initiatives like the Australian Climate Roundtable have improved relations between the business community and green groups, as well as put pressure on the government, such initiatives remain the exception rather than the rule and are created from 'bottom up' initiatives as opposed to being institutionalised or created by the government. In contrast, a wide range of Norwegian stakeholders interact regularly and in an institutionalised setting, for example on the Minister of Climate and Environment's Climate Council (*Klimarådet*)[39], government committee hearings, and multi-stakeholder initiatives similar to the Australian Climate Roundtable. Several interviewees highlighted the frequency of interactions and the quality of the dialogue with 'opposing' stakeholders, as well as the benefits this had (Interview 15, 16, 17, 18, 19, 20). As one member of the Climate Council outlined:

> It's great when you have discussions where an agreement about goals starts to develop, and you notice there's a recognition around the table that "we're actually working towards a common goal even if we have different standpoints, tools and priorities." But the key thing that happens is that a deeper understanding develops between us all, especially between businesses and ENGOs, for example, or between the private and public sector, or between academia and businesses etc. So there's a deeper understanding and a deeper recognition, and that creates the basis for a better dialogue, and that's good (Interview 20).

[39] Created to provide advice on how the cross-party climate agreement (*Klimaforliket*) can be strengthened and put Norway on track to becoming a carbon neutral society by 2050.

Other members of the Climate Council echoed this sentiment. A representative from WWF argued: 'Having forums like this where issues are brought up and suggestions and knowledge is sought is nice, but it's especially useful to notice what the other groups are saying' (Interview 15). Similarly, the LO representative argued it was important to talk to ENGOs in order to get them to understand the need for a slower tempo of transition, the need for a just transition, and the need to maintain public support for climate policies. As such: 'ENGOs now get the need for a just transition and that it's not black-or-white, or for-and-against. So the more we talk to each other the more we understand each other, and the more holistically we can see these things the easier it is to get climate policy through' (Interview 19). Furthermore, one member pointed out that the Council's deliberations had a threefold benefit for policy-makers. Firstly, it provided useful information and advice for the minister. Secondly, it was a useful 'testing ground' for ideas, where the minister could get reactions to proposed policies from the various stakeholders. Thirdly, achieving consensus between stakeholders in the Climate Council provided strong backing for the minister in discussions and negotiations with other ministers in the cabinet (Interview 20). Thus in line with the results of the fsQCA analysis, the interviews show how the heavy and institutionalised involvement of ENGOs counter-balance the influence of the fossil fuel lobby, and facilitate party agreement on climate change.

However, a factor that wasn't examined in the fsQCA analysis that may help explain the strong consensus in Norway is the countries' welfare system. As the LO representative pointed out:

> If you're in danger of losing your job then the resistance will be so big that you can't make any changes. If you talk to miners in Australia, the US or

> Poland, you'll know what I mean. If there's no alternative to your job then you're obviously going to cling to the status quo. Because there's nothing else to go to the green transition won't happen. That's why we use the term 'just transition', because if mass unemployment is the alternative then you're not going to be able to make the necessary changes. But it's been easier here because we have good welfare provisions and safety nets (at least for the time being), which mean that if you lose your job you won't end up on the street or having to sell your house. So if you have those kinds of tools you can create and implement a green transition in a completely different way (Interview 19).

Thus with substantial welfare provisions, there might be less opposition from affected or exposed industries, reducing their hostility to climate policies and improving the prospects for genuine dialogue, compromise and consensus. The benefits of generous welfare provisions for public support and the creation of consensus corroborate findings from recent research, which finds a strong relationship between countries' welfare provisions or social democratic tendencies and climate change performance (Rootes et al. 2012, Bernauer and Böhmelt 2013). As outlined in Chapter 2 (see section 2.2.6.), a country's welfare provisions are strongly interlinked with its institutional governance system (Visser and Hemerijck 1997, Rhodes 2001), thus again emphasising the relevance of corporatist institutions in facilitating consensus on climate change.

7.3. The electoral system

The Australian interviews highlighted a dynamic whereby the aforementioned country characteristics of fossil fuel interests, multiple veto points and pluralist

institutions interact with the majoritarian electoral system to hinder party agreement on climate change, whereas the Norwegian interviews revealed how the proportional electoral system interacts with the corporatist features of the institutional governance system and fossil fuel interests to facilitate consensus. The binary political system in Australia and marginal seats strengthen the impact that the fossil fuel lobby and constituent interests have on parties' climate change positions, and a lack of party competition means there is a weaker countervailing influence to such interests on the Liberal Party. In contrast, the Norwegian interviews revealed that the PR system has created a competitive and constructive political environment conducive to consensus, and that this environment increases the influence of ENGOs whilst reducing the aggressiveness of the fossil fuel industry. The interviews consequently support the findings of the fsQCA analysis and provide additional insight into the causal mechanisms through which the country characteristics interlink and moderate each other's effect to facilitate or hinder party agreement on climate change.

7.3.1. The effect of majoritarian features of the Australian electoral system

Several of the Australian interviews revealed that the binary political system and the incentives created for politicians by the need to win marginal seats for the House of Representatives mean that fossil fuel lobbies and constituent interest will have a particularly strong influence on politicians' climate change positions (Interview 5, 10, 12, 17). Highlighting the influence of fossil fuel interests on politicians seeking re-election, the CFMEU representative pointed out that 'we have a demonstrated capacity when we put our minds to it to affect election results in various marginal electorates that are in or near coal mining areas' (Interview 17). This dynamic was underlined by the representative from TWS, who argued that the major parties create

their stances and policies on climate change based on the underlying filter of electoral politics:

> It's the 'ok, if we do this what's going to happen in the coal mining seat? And if we lose it or don't win it back, what does that mean for our chances of government?' That will obviously influence their decisions, and that is, I think, a fundamental flaw of our system – that it doesn't necessarily mean we're making the right decisions. It's just that there's always this overlay of 'what's going to advance or detract from our political aspirations as a party?' (Interview 12)

The TWS-representative claimed this political dynamic represented 'one of the largest challenges' for Australia in reaching its emissions reduction targets:

> I think it's the politics (…) and the historical model: one party puts up a position and the other has to find a way of opposing it. We've just got this never-ending spiral to inaction because parties are just too scared to act because of what it would do, how exposed they'll get through action, and how the opposition will exploit it. I think that's the biggest problem of all really (Interview 12).

Echoing this, when explaining how the major parties positioned themselves in relation to each other, one Labor MP pointed out that: 'in a binary political environment, political reward is often had for extreme positions – rarely is it had for thoughtful positions' (Interview 5). Thus the Australian interviews show that fossil fuel lobbies have a particularly strong effect on politicians when such politicians operate in a binary political environment with marginal seats.

However, the interviews also showed that the above logic impacts right-wing politicians in particular, thus fuelling polarisation, as they are less affected by party

competition than Labor on the issue. Labor politicians were the only politicians who admitted to being incentivised by party competition, saying that potential competition from the Greens influenced Labor policy to some degree (Interview 4, 7, 8). The main problem is thus the lack of party competition influencing the Liberal Party, or a lack of counter-balance to the influence of the fossil fuel lobby and constituent interests. Greens MP Adam Bandt and Greens Senator Janet Rice both complained that their lack of political influence was the result of too little media coverage, despite them receiving 10% of the vote for the last decade – 'not nearly reflecting our prominence in the political system' (Interview 11). Although they argued their lack of media coverage was partly due to the dominance of the climate sceptical Murdoch press, it was mainly due to the fact that they were 'a third party in a two-party system' (Interview 10). The electoral system and their resulting lack of media attention prevents public concern for climate change from growing, they argued, thus reducing the pressure, especially on the Liberal Party, to act on the issue. Bandt thus argued that one of the key reasons for Australia's polarisation on climate change was 'the two-party system' (Interview 10). These comments not only support the findings of the previous chapter, underlining the impact of public concern, but importantly show how the binary political system reduces competition and thus pressure for the right-wing Liberal Party to embrace climate change, thus fuelling polarisation.

7.3.2. The effect of proportional representation in Norway

The Norwegian interviews underlined the positive effect the PR electoral system has on the creation of party agreement on climate change. A low electoral threshold and multiple parties has boosted the salience of climate change and made it an issue of party competition. This has created a 'competitive consensus' whereby 'every party

wants to be the 'green' party' (Interview 3). The Labour Party is incentivised to take a strong position on climate change by competition from the Socialist Left Party, the Liberal Party and the Greens, and the Conservative Party is incentivised to take a strong position by competition from the Liberal Party, The Christian People's Party, as well as by Labour (Interview 3, 4, 5, 6, 9, 10, 11, 12, 13, 14). The two major parties (Labour and Conservative) strengthen the competition, as each does not want to be outdone by the other. According to Erik Solheim (previous leader of the Socialist Left Party and Minister of the Environment 2007-2012, and current Executive Director of the United Nations Environment Programme) this particular dynamic made the cross-party agreement on climate change ('*Klimaforliket*') possible (Interview 11). Similarly, the climate ambitious Liberal Party admitted to strategically pushing Labour and the Conservatives on climate change, as 'if we move one of them, the other will largely follow' (Interview 6).

The PR electoral system also makes negative campaigning less of an option for parties, making it easier to create cross-party consensus on the issue (Interview 3, 4, 5, 9, 10). For example, two Conservative politicians highlighted the importance of proposing policies that would be amenable to potential coalition partners and not cause controversies, as they were dependent on other parties' support to form a government (Interview 3 and 4). The fact that minority governments are commonplace also creates a beneficial dynamic that aids consensus. Socialist Left Party MP and previous Minister of International Development (2012-2013), Heikki Holmås, argued that cross-party dialogues had been more constructive and dynamic as the conservative minority government was forced to bargain to get sufficient votes in parliament (Interview 13). Likewise, a Conservative MP pointed out that whereas during the previous Labour majority government (2005-2013) issues were settled in cabinet, the conservative minority government (2013-present) is dependent on

support from at least one other party. As such, 'the debate has now moved to the *Storting*, so there's much more scope for change and compromise than before, and that naturally affects the debate' (Interview 4). Thus in contrast to the binary political system in Australia, the PR system in Norway has created a far more competitive, constructive and dynamic environment for the political parties, facilitating the creation of party agreement on climate change.

Furthermore, a WWF-representative pointed out that this political environment made it easier for ENGOs to affect policy, as party competition reduced the influence of the civil service in the Ministry of Finance and the Ministry of Petroleum and Energy and prevented them from protecting vested interests: 'The bureaucracy is often more conservative than parliament, so if you have the opportunity to bypass them and their business-as-usual attitudes and go straight to parties in the *Storting* where the action is, then that's much more effective. It's the parties that create a dynamic system' (Interview 15). This example also shows how the corporatist system interacts with the electoral system to impact party agreement on climate change. Two previous party leaders of the Socialist Left Party pointed out that the strength and influence of ENGOs as a result of the corporatist system means they impact heavily on party competition (Interview 11 and 12). 'They help define the issue ownership on the environment and climate change, so you really don't want them as opponents' (Interview 11). Thus the PR system also helps ENGOs gain more influence, facilitating party agreement.

Significantly, the interviews uncovered a key dynamic through which fossil fuel interests are moderated by the electoral system. When asked why the Norwegian petroleum industry was constructive on climate change issues, one Conservative MP pointed out: 'Because you have the fairly special situation here in Norway where there are parties in the *Storting* that want to close the industry down completely. It's

a small minority of course, but the point is that it puts pressure on the industry' (Interview 4). The PR system, with its low electoral threshold and multiple parties, thus creates a threat to the fossil fuel industry in the form of opposing parties (e.g. the Socialist Left Party, the Greens, and to a certain extent the Liberal Party). Naturally the Australian Greens also have a poor, and at times hostile, relationship with the fossil fuel industry, potentially acting as a moderating force. However, the key difference between Australia and Norway is that the smaller parties in Norway have a larger impact on party competition, and importantly have a far more realistic chance of joining coalition governments and holding the balance of power, thus posing a greater threat to the industry. Consequently, the Norwegian petroleum industry behaves more constructively, representing less of a hindrance to the creation of cross-party consensus on climate change.

7.4. Discussion

An in-depth and qualitative comparison of the case study countries provides significant support for the fsQCA analysis in Chapter 4, and importantly provides insight into how the various country features interact to affect party agreement on climate change.

In Australia, the marked differences in attitudes to climate change due to the regional concentration of fossil fuel interests – and especially right-wing politicians understanding their role as the protectors of such constituent interests – combine with a lack of bottom-up pressure or hostility from states, meaning that cross-party consensus on climate change has been difficult to achieve. Moreover, this relationship between fossil fuel interests and veto points is strengthened due to the institutional governance system, as the pluralist features of Australian politics award the fossil fuel industry a privileged position in terms of both resources and access to

policy-makers in comparison to the ENGOs. Lastly, these country characteristics interact with, or are in turn amplified by, the majoritarian electoral system. The binary political system and the electoral logic of having to win marginal seats strengthens the impact of the fossil fuel lobby and constituent interests on parties' climate change positions, and a lack of party competition means there is a weaker countervailing influence to such interests on the conservative Liberal Party. Collectively, the interviews thus show how the various institutional features interlink and moderate each other's effect, and serve to hinder the creation of party agreement on climate change.

Given that power and authority is diffused more vertically in the Norwegian case, with few veto points, the municipalities and counties lack sufficient power and resources to achieve certain climate change goals, and are consequently pushing the government by demanding such means. The ambition at the regional and local level underlines the importance of public opinion, and supports the findings of the previous chapter. Moreover, the uniformity of regional climate change ambitions and the absence of any 'laggard regions' are aided by the uniformity of the political parties' stances on climate change across levels of government. The close relationship between national, regional and local politicians in Norway as a result of being a unitary state means that making members toe the party line across levels of government is easier. Furthermore, politicians are not lobbied or incentivised by fossil fuel interests in the same way as in Australia, as the Norwegian petroleum industry is more constructive and less aggressive due to a history of strict environmental regulations as a result of corporatist institutions. The petroleum industry is also more constructive due to the high levels of public concern about climate change, again supporting the findings of the previous chapter. High levels of public concern might also be influenced by the generous welfare provisions in

Norway – created as a result of corporatist institutions – thus demonstrating how these features interact to influence the outcome. Importantly, the petroleum industry was also influenced by competition from and close relationships with opposing stakeholders and ENGOs, underlining the impact of corporatist institutions yet again. This competition was in turn amplified by the PR electoral system which awards ENGOs increased influence on party competition. Lastly, the interviews uncovered a key dynamic through which fossil fuel interests were moderated by the electoral system, whereby the threat from smaller parties calling for the abolishment of fossil fuels reduced the aggressiveness of the industry.

By identifying how various institutional features interact to facilitate or hinder party agreement on climate change – and also how the impact of these institutional features can be catalysed or moderated by levels of public concern – the findings of the chapter thus make significant contributions to the academic literature. The corroboration of the effects of the various institutional features identified in the fsQCA analysis through in-depth qualitative methods points towards the findings having both external and internal validity, and thus allows us to draw the following conclusions with more confidence.

Firstly, the institutional features confirmed to be relevant in explaining variation in party agreement – the presence of fossil fuel interests, veto points, the institutional governance system and the electoral system – feed into and fill important gaps in the nascent comparative climate policy literature, which seeks to explain variation in states' climate change ambitions. Party polarisation can be a serious impediment to action on climate change, yet no systematic or comparative analysis has been conducted explaining variation in party agreement on the issue. The chapter thus provides a much-needed empirical contribution to this literature,

identifying how different country characteristics impact on parties' incentives for agreement, and thus in turn the country's ambitions.

Secondly, the findings of the chapter make a significant contribution to the party politics literature by highlighting how political parties strategise as a result of their institutional context. Given the strong commitment of most mainstream parties to economic growth or the continuation of lucrative fossil fuel exports, they will have significant incentives not to embrace and compete on the issue of climate change. Explaining the instances where we in fact do see such party competition is thus a critical and significantly underdeveloped part of the literature. As outlined in Chapter 2 (see section 2.3.4.), the party competition literature identifies two features – societal and institutional – which help explain why climate change becomes salient and politicised (Green-Pedersen 2007). Societal factors include cross-national variation in public concern and varying salience across time within a country, or focusing events such as extreme weather, flooding or bush fires, whilst institutional features include, for example, the structure and competitiveness of party systems. Green-Pedersen (2007) importantly notes that these two perspectives are by no means mutually exclusive, and probably interact in order to explain the outcome. The relative importance of the two factors, however, is interesting as 'it implies two very different views of modern politics in terms of predictability and two very different assessments of the role and importance of political parties in modern politics' (Green-Pedersen 2007: 625). If the outcome of issue competition is determined more by institutional than by social features, for example, then it places political parties as much more central actors in modern politics.

The findings of this chapter feed into this debate, and reveal that the two factors do indeed interact to impact on party competition. However, the findings also identify institutional features to be relatively more important than societal features in

explaining the variation, thus underlining the critical role of political parties for climate change politics. The parties in Australia and Norway were indeed aware of the low and high levels of climate change concern in the country respectively, justifying inaction on the part of the Australian Liberal Party whilst incentivising parties in Norway to embrace the issue. Further, high levels of public concern in Norway interacted with a lack of veto points to turn regional and local governments into drivers of policy and consensus as opposed to barriers, and also made the petroleum industry more constructive and socially responsible. However, on balance the interviews reveal that institutional features have a far larger impact on party competition and consensus relative to societal features. It is not simply the regional variation of public concern in Australia that influences the parties' positions, but significantly the incentives of marginal seats and the powerful fossil fuel lobby, created as a result of the electoral and institutional governance system. Similarly the high levels of public concern in Norway have a significant impact on the parties, but none so much as the competition created as a result of the PR electoral system and the interest group dynamics created by the corporatist institutional governance system. Moreover, the high levels of public concern in Norway may in turn be facilitated by the country's generous welfare provisions, again underlining the importance of the corporatist institutional system. The strength of the incentives created by the institutional context also shed light on and contextualise the findings of Chapter 3, pointing towards these institutional features also being relatively more important than party ideology in explaining variation in party agreement on climate change. Thus the findings of the chapter indicate that variation in party agreement on climate change is more an outcome of party strategic behaviour within the context of domestic party competition than ideology or societal factors.

7.5. Conclusion

The success of the Paris Agreement, with its 'ratchet mechanism' intended to increase national targets every five years, will depend heavily on the effectiveness of national emissions reduction policies. As such, domestic politics and national institutions will be central to the success of the international climate change regime. Understanding the ways in which the national institutional context affects political parties is thus crucial, as it allows us to understand the barriers to creating ambitious and long-term investments and policies, as well as the opportunities institutional improvements or innovations can create. Political parties and party agreement are central to ambitious and sustained action on climate change, however, research examining what facilitates or hinders such agreement is scarce, particularly for comparative work. Based on forty-four interviews with policy-makers and policy-shapers in Australia and Norway this chapter has presented an in-depth and qualitative comparison of how ideological, societal and institutional features interact to facilitate or hinder party agreement on climate change.

In conducting this analysis the chapter has tested the findings of the fsQCA analysis presented in Chapter 4 and found support for its conclusions, thus providing both external and internal validity to the argument. Significantly, the chapter has shed light on the mechanisms through which the various features interact and moderate each other's effects to influence the outcome. It is clear from the foregoing analysis that the various institutional features are not simply needed in isolation in order to affect the incentives of political parties, but are needed in combination in order to do so. Moreover, the analysis has revealed that both societal and institutional features interact to influence the behaviour of parties and the outcome, but that institutional features constitute the most influential factor, underlining the importance of country and party organisational characteristics in explaining the

variation in party agreement across countries. This is not to say that party ideology or societal features are insignificant, however, only that institutional features have a relatively more important role in explaining the variation in the dependent variable. Thus the importance of these institutional and organisational features suggests that variation in party agreement on climate change is more an outcome of party strategic behaviour within the context of domestic party competition than ideology or societal factors. As such, the chapter makes a significant contribution to both the comparative climate policy literature and the party politics literature.

Chapter 8: Conclusion – Explaining variation in party agreement on climate change

Introduction

Climate change is a serious global problem, which warrants an effective and progressive response by the global community if the planet is to avoid an increase in global average temperature above 1.5 – 2 degrees. The recent Paris Agreement, which entered into force on the 4th of November 2016 (as 55 Parties to the UNFCCC accounting for at least 55% of global emissions had ratified the agreement), represents a significant step towards creating a coherent and global response to the problem. The Agreement acknowledges that developed nations have a particular responsibility to reduce emissions, and similarly recognises the specific needs and special circumstances of developing countries in reaching their targets. Developed countries have historically benefitted substantially from carbon-intensive industries, and also have a greater wealth and capacity to mitigate and adapt to the problem than developing countries. Developing countries, on the other hand, need to bring billions of people out of poverty, yet developing along a green trajectory is far more expensive than using fossil fuels. Developing countries will also disproportionately experience the detrimental effects of climate change, despite not having contributed substantially to its causes. However, at present the Paris Agreement fails to meet its core aim, namely to keep global warming below 2 degrees above pre-industrial levels (and as close to 1.5 degrees as possible) and to reach zero net global emissions in the second half of this century. In fact, current pledges (INDCs) would still deliver around 3 degrees of overall warming by the end of this century (Climate Action Tracker 2016a). As such, much of the success of Paris hinges on these pledges being

reviewed and toughened by the signatory states through the five-yearly 'ratchet mechanism' created by the Agreement. Domestic politics will therefore be central to the success of the international climate change regime.

However, within developed nations there is significant variation in levels of responsibility and ambition. Moreover, although many developed countries experience cross-party consensus on the issue of climate change (such as the Scandinavian countries, Germany and the Netherlands), others – most notably Australia, Canada and the US – have polarised over the issue, and experience sharp partisan divides. Such polarisation is severely detrimental to progress on climate change, as creating necessary policies becomes harder to achieve, and the risk of policy being undone by subsequent governments fails to provide businesses with sufficient security and incentive to make green investments for the future. Furthermore, as the result of the recent US presidential election demonstrates, there is also a fear that party polarisation on climate change and the election of climate sceptic politicians can severely impact global efforts to address the problem as well.

The nascent literature examining such partisan divisions has identified the presence and growth of party polarisation, yet not its underlying causes and drivers. Furthermore, the literature has examined single country case studies only and not taken a comparative approach, neither has it sought to understand why other countries instead experience cross-party consensus on the issue. Empirical literature explaining variation in party agreement on climate change is thus scarce, and this is especially the case for comparative work. This thesis has sought to fill this gap in the literature, by examining the causes and drivers of both party polarisation and cross-party consensus on climate change across developed countries. By doing this, the thesis engages with and contributes to two bodies of literature. The comparative climate policy literature identifies country characteristics that explain variation in

states' climate change ambitions – and as such might make it easier or harder for political parties to create agreement on the issue – whilst the party politics literature explains party behaviour, thus helping us to understand why parties embrace the issue of climate change or not. By bridging these two literatures the thesis has managed to make sense of the research puzzle, i.e. why some countries experience cross-party consensus on the issue of climate change whilst others experience party polarisation. Moreover, by combining the two literatures it also helps fill significant gaps in each.

This conclusion consists of five sections. The first section summarises the empirical findings and the argument of the thesis. The second section then discusses the wider relevance and generalisability of the thesis' findings, before the limitations of the research are discussed in the third section. The fourth section outlines avenues for future research and the fifth section concludes.

8.1. Empirical findings and the argument of the thesis

The nested analysis (Lieberman 2005) and mixed methods approach of the thesis started with large and medium-N analyses, before focusing down into a small-N investigation to verify, and then provide a more nuanced understanding of, detected relationships amongst the 127 parties and eighteen OECD countries. The medium-N fsQCA analysis also enabled the case studies with the greatest explanatory value to be selected for comparison – in this case Australia and Norway – through the use of Mill's (1843) Method of Difference. The empirical findings of the thesis are outlined below.

The comparative climate policy literature identifies the relevance of political parties and partisan theory in explaining variation in countries' climate change ambitions (Knill et al. 2010, Jensen and Spoon 2011, Schulze 2014, Jahn 2016). How

pro-environmental parties are is thus a critical factor in explaining variation in states' climate change performance. However, the comparative climate policy literature lacks an understanding of how and why parties embrace the issue of climate change in the first place. Chapter 3 thus sought to explain variation in parties' climate change salience, examining the effect of party characteristics. Chapter 3 thus fills a gap in the comparative climate policy literature by examining why parties are more or less positive towards the issue of climate change. Moreover, as the chapter focuses on political parties and party characteristics, it also provides a significant contribution to a body of literature that has been primarily focused on national governments, country characteristics and international negotiations.

Due to a lack of specific data examining the relationship between political parties and the issue of climate change, a salience-based approach was taken, as this approach has previously been used to position parties on issues (e.g. Volkens et al. 2014). The intuition behind the approach is that how prominent parties make the issue in comparison to other issues reveals how important they think it is, and how far they have embraced it. The data was drawn from the CMP dataset, but the climate change content was manually extracted from the broader environmental code[40] and re-coded to measure climate salience only. This measure, covering 127 parties across eighteen countries, represents a novel empirical contribution to the field.

Chapter 3 also feeds into several debates in the party politics literature. The chapter found that political parties have not made climate change a salient issue, with the mean proportion of manifestos dedicated to the issue amounting to 3.3%. Although this might be the effect of the CMP data's conservative coding scheme, it nonetheless leaves the question as to how well parties respond to new programmatic challenges unanswered (see Dalton et al. 1984, Knutsen 1987, Kitschelt 1989, Dalton

[40] *per501*

2009, Båtstrand 2014). However, significant differences between parties were still observed. Through regression analyses, Chapter 3 therefore tested the explanatory relevance of four broad party characteristics – two of which related to partisanship and two of which related to the parties' position within the party system. These features have previously been identified in the party competition literature as being relevant in individual country case studies, but had never before been tested comparatively or quantitatively. The results showed that only parties' left-right ideology was significant in explaining the variation in levels of climate change salience, thus underlining the relevance of ideology over parties' size and strategic incentives, their economic and policy preferences, and their incumbency constraints. Furthermore, when re-running the same analysis on traditional environmental issues, ideology was not significant, thus lending support to the argument that the issue of climate change can be a distinct issue with different incentives for political parties, and can be a partisan issue as opposed to a valence issue.

However, the chapter did not examine the relative importance of these party characteristics in comparison to country characteristics. Due to the limited number of comparable developed democracies and data restrictions, examining this relationship in a multi-level analysis would lead to biased results (see Stegmueller 2013). The remainder of the thesis has therefore sought to get around this restriction by firstly examining the relevance of country characteristics separately in Chapter 4, and subsequently by examining the relative importance of each – and also how they interact – through the in-depth and comparative analysis of Australia and Norway in Chapters 6 and 7. However, at the country level we were not simply interested in how individual parties respond to the issue of climate change, but importantly why we can observe smaller or larger differences in such support and salience between parties. In other words, we needed an understanding of what creates party agreement

and disagreement on climate change, as the former can lead to more ambitious and stable policies, whereas the latter has detrimental effects on policy ambition and stability.

However, the existing literature on partisan divisions over climate change has failed to identify the causes and drivers of such polarisation or take a comparative approach, and has moreover failed to examine instances of the opposite outcome, i.e. cross-party consensus. Chapter 4 thus sought to explain variation in party agreement across eighteen OECD countries, examining the effect of country characteristics. The analysis used a burgeoning methodology – fsQCA analysis – to achieve these ends, thus representing an innovative contribution to the literature on set theoretic methods, as the method has not previously been used to examine party polarisation or consensus. In addition, the chapter presented a novel conceptualisation and measure of party agreement – namely inter-party difference in issue prioritisation (climate salience) – based on the CMP data, constituting another valuable empirical contribution to the field.

Whereas recent research (Lachapelle and Paterson 2013, Fankhauser et al. 2015) establishes a negative relationship between fossil fuel dependency and a country's climate ambitions – and so one would expect this to be a key factor explaining party polarisation on the issue – Chapter 4 demonstrated that the presence of fossil fuel interests in a country will only have a polarising effect on parties if combined with multiple veto points, pluralist institutions and a majoritarian electoral system. However, fossil fuel interests will not have a polarising effect if combined with fewer veto points and corporatist institutions. On the other hand, countries with few veto points, corporatist institutions and a proportional electoral system were shown to experience high levels of cross-party consensus on climate change. The findings of the chapter thus challenge the common assumption that consensus will

automatically be difficult in states with fossil fuel dependency. Rather, it demonstrates that the institutional context is critical, as it moderates the effects of fossil fuel interests and shapes the political decisions of parties.

These results also have wider relevance. The stark differences in climate salience between parties and the strong variation in party agreement across countries supports the argument in Chapter 3 and points towards the partisan – as opposed to the valence – nature of the climate change issue. Both chapters therefore feed into the growing debate about the nature of the climate change issue (Pardos-Prado 2012, Gemenis et al. 2012, Carter and Clements 2015). Unsurprisingly perhaps, the countries experiencing party polarisation and cross-party consensus aligned into the 'climate laggards' and the 'climate leaders' of the sample respectively. The findings of Chapter 4 thus also feed into the growing comparative climate policy literature and underline the relevance of political parties, partisan theory – and now party agreement – for climate change outcomes. Furthermore, to the extent that the examined institutional features affect party agreement on climate change and this agreement in turn affects states' climate change ambitions, the chapter also demonstrates the relevance of these institutional features and their interaction in explaining variation in states' climate policy ambitions, thus constituting an original contribution to this burgeoning literature.

However, Chapter 4 also outlined caveats to the dependent variable as well as controversies over the fsQCA methodology. Due to these limitations, the case was made to complement the analysis with an in-depth and qualitative comparison. This allows for the testing of the findings of the fsQCA analysis, and importantly for the examination of how the various features interact and moderate each other's effects on the outcome. Chapter 5 thus outlined the argument for selecting Australia and Norway for the controlled comparison. Both countries share significant similarities –

most notably that they are both major fossil fuel exporters – yet differ on the dependent variable, thus providing a fruitful basis for comparison. However, one potentially relevant characteristic, namely levels of public concern for climate change, remained unknown. Thus Chapter 6 examined the differences in levels of public concern in each country, and the drivers of such concern, before these relationships were examined in more detail through interviews with policy-makers in each country.

Chapter 6 found that public concern for climate change was significantly lower in Australia than in Norway. Analysing the drivers of this concern, the chapter uncovered the relevance of two relationships. Firstly, political partisanship significantly helped explain variation in concern in Australia, whereas it was not relevant in Norway. This result also lends support to the argument proposed in Chapter 3 that climate change is not a valence issue. Secondly, people's feelings of identity, attachment and responsibility were significant in explaining variation in concern in Australia, with people who viewed themselves as world citizens being significantly more likely to be concerned about climate change. In contrast, such attitudes did not differ significantly in the Norwegian case, thus pointing towards the size and federal structure of Australia as potentially impacting on people's concern for climate change.

These results were therefore brought forward into the in-depth comparative analysis, where the relationship between public concern and political parties – and thus party agreement – was examined. The interviews revealed that the patterns of concern identified in the regression analyses were also observed by the politicians themselves, thus supporting the findings of the quantitative analysis and underlining how these relationships could indeed be impacting on the parties' positions and the prospects of party agreement. Politicians in Australia were aware of the partisan

divide amongst the public and the regional variation in concern, whilst Norwegian politicians observed high levels of concern across the political spectrum and the country. Thus a perceived lack of pressure to act on climate change by the conservative Coalition in Australia, in contrast to a perceived pressure to do so for all the parties in Norway, could help explain why the issue is polarised in former case whilst there is strong cross-party consensus in the latter. However, to compare the relative importance of societal factors such as public concern to party- and country characteristics in explaining variation in party agreement on climate change (as well as how these features interact), this relationship was examined further in Chapter 7.

Chapter 7 thus reviewed extended interview material with forty-four politicians, civil servants, ENGO- and fossil fuel industry representatives, policy advisors and academics/experts in Australia and Norway, exploring how ideological, institutional and societal features help explain the variation in party agreement on climate change. The interviews allowed for the triangulation of the findings of the fsQCA analysis, and made it possible to further 'flesh out' how the parties and stakeholders strategise as an effect of their domestic setting, and how this in turn affects party agreement on climate change.

Although both Australia and Norway are major fossil fuel exporters, the interviews demonstrated that the presence or absence of veto points moderates the effect of such interests and provides different incentives for the parties. The Australian interviews showed that the marked differences in climate change concern across the country due to the regional concentration of fossil fuels – and significantly right-wing politicians understanding their role as the protectors of such constituent interests – interact with a lack of bottom-up pressure and hostility from fossil fuel states, making cross-party consensus on climate change difficult to achieve. In contrast, the lack of veto points in Norway has resulted in close relationships

between various levels of government, making it easier to overcome inter-regional differences in interests or values.

The negative effect that fossil fuel interests and veto points have on right-wing politicians in Australia was found to be strengthened due to the institutional governance system, with the pluralist features of Australian politics awarding the fossil fuel industry a comparative advantage to the ENGOs. In contrast, the corporatist features of the Norwegian institutional governance system were found to be moderating the negative influence of the fossil fuel lobby. High levels of public concern and a culture of taking the environment seriously created by path-dependence from strict environmental regulations in the 1970s and 1980s have created a constructive fossil fuel industry. In addition, the powerful environmental lobby presents an effective countervailing influence, and this lobby moreover has close cooperative and communicative links with the fossil fuel industry through various institutional settings, thus limiting contestation and debate. Combined with generous welfare provisions, these features of the Norwegian institutional governance system were shown to facilitate party agreement on climate change.

Lastly, the binary political system in Australia and the incentives created for parties from the need to win marginal seats were shown to strengthen the impact of fossil fuel lobbies and constituent interests on the parties' climate change positions. Moreover, a lack of party competition as a result of this binary political system meant there was a weaker countervailing influence to such interests on the conservative Liberal Party. As such, the Australian interviews showed that fossil fuel interests, multiple veto points and pluralist institutions interact with the majoritarian electoral system to hinder party agreement. In contrast, the Norwegian interviews revealed that the PR electoral system creates a competitive and constructive political environment conducive of consensus. Further, this political environment increases

the influence of ENGOs, and the presence of small and hostile parties reduces the aggressiveness of the fossil fuel industry.

By supporting and nuancing the findings of the fsQCA analysis, Chapter 7 thus provides a contribution to the comparative climate policy literature by identifying how different country characteristics interact to impact on parties' incentives for agreement on climate change, and thus in turn the country's ambitions. In addition, the chapter makes a significant contribution to the party politics literature by highlighting how political parties strategise as a result of their institutional setting. Significantly, the chapter's findings feed into debates in the party competition literature as to whether societal or institutional features represent the greatest incentive to embrace and compete on a new issue. The chapter reveals that although the two factors are important and interact to help explain the outcome, institutional features seem to have a relatively larger impact on party behaviour than societal features. Although the parties in both Australia and Norway were aware of the levels of climate change concern in each country – potentially justifying inaction on the part of Australian right-wing politicians whilst incentivising Norwegian ones – and although high levels of public concern in Norway have driven the efforts of the municipalities as well as improved the petroleum industry's corporate social responsibility, the institutional context nonetheless seemed to have a relatively larger impact on party behaviour and competition in both countries. The interviews demonstrated that Norwegian politicians were not simply influenced by public opinion, but importantly by the institutional context where corporatist features have created a powerful environmental lobby and where the PR electoral system has increased party competition and incentives for consensus. Likewise, the petroleum industry was not simply incentivised to be constructive on climate change due to public opinion, but significantly due to its close interaction with the state and

ENGOs, as well as smaller parties such as the Socialist Left Party and the Greens calling for its abolition – again pointing to the relevance of the institutional governance system and the electoral system in explaining the outcome. In Australia as well, the parties were not primarily driven by perceptions of low and regionally concentrated levels of climate change concern, but by the logic of electoral competition in a binary political system with marginal seats, as well as the strong fossil fuel lobby. As such, these findings underline the critical role of political parties for climate change politics, as it shows how public concern is relatively less important for party agreement and ambitious climate policies than party competition and the incentives created by the domestic institutional setting.

Furthermore, the strength of the institutional incentives also point towards these features being relatively more important than party ideology in explaining the variation in party agreement. Although Chapter 3 outlined the relevance of parties' left-right ideology in explaining how far they have embraced the issue, this is less helpful in explaining the intra-party family variation, or rather why certain right-wing parties have in fact embraced the issue despite the ideological incentives not to, and why we can observe cross-party consensus in certain countries.

Thus the findings of Chapter 7 indicate that variation in party agreement on climate change is more an outcome of party strategic behaviour within the context of domestic party competition than it is a result of ideology or societal factors. The thesis therefore argues that parties' position on climate change and how far they have created agreement on the issue is strongly related to the endogeneity of the party system and the dynamics of domestic party competition rather than it being the result of ideology or societal factors. Significantly, this awards political parties and party competition a critical role in explaining countries' climate change performance and in making the international climate change regime a success.

8.2. The wider relevance of the thesis

The current section outlines the wider relevance of the thesis. The first section highlights how the empirical findings and argument arising from the investigation provide contributions to related fields of existing literature, whilst the second section argues how these findings are generalisable to other countries and issues.

8.2.1. The broader relevance of the thesis

By examining the causes and drivers of party polarisation and consensus on climate change across eighteen developed countries, the thesis has filled a significant gap in the literature on partisan divisions over climate change. Moreover, it has also helped explain variation in states' ambitions on climate change, as well as why parties find it easier or harder to embrace this new issue. On a broader level then, the thesis provides an opportunity 'to track how party systems change in response to a new programmatic challenge' (Dalton 2009: 171) and feeds into the wider literature on the adaptability of parties to new issues (Rohrschneider 1993, Ware 1996, Knutsen 1997, Dalton 2002 2009, Båtstrand 2014). The thesis also feeds into the growing debate as to what type of issue the 'new issue' of climate change is (see Pardos-Prado 2012, Gemenis et al. 2012, Carter and Clements 2015). In addition, the argument of the thesis, i.e. that party agreement on climate change is more an outcome of domestic institutions and party competition than ideology and societal factors, mirrors that of related research on Euroscepticism (e.g. Szczerbiak and Taggart 2008, Vasilopoulou 2010), which argues that radical right-wing parties' positions on European integration is more the product of their wider agendas within the national party system than their ideology. As such, the findings of this thesis feed into a wider debate in the party politics literature, specifically on right-wing ideology and extreme positions within the party competition literature.

The thesis has emphasised the lack of data on mainstream parties' positions on climate change specifically, as opposed to the environment more generally. As such, the development of two specific measures – firstly of parties' climate change salience and secondly of party agreement on climate change – means that the thesis provides original and valuable empirical contributions to the field that can be utilised both as independent and dependent variables in related research by others. By emphasising the relationship between political parties and climate change, the thesis thus makes a significant contribution to the party politics literature, which has primarily been focused on the environment more generally or on green parties alone.

Similarly, as was noted in the literature review in Chapter 2, much of the existing comparative climate policy literature seeks to explain ambitious *environmental* policy rather than climate change policy. However, this thesis has argued that the two issues can be substantively different and have different incentives for political parties. Moreover, the two issues can even come into conflict with each other in certain circumstances, for example when the development of renewable energy to mitigate climate change (for example hydro-electricity or wind-turbines) negatively affects habitats and biodiversity. Thus by focusing on the issue of climate change, the thesis makes a distinction that emphasises the differences between the two issues and policy areas, and provides an important contribution to the burgeoning literature in the climate policy field. The thesis also has value for scholars interested in policy analysis more broadly, and particularly agenda setting – i.e. explaining how and why issues (in this case climate change) rises up the political agenda (e.g. Kingdon 1995, Carter and Jacobs 2014).

Further, given that the thesis underlines the relevance of institutional features for parties' climate change positions and behaviour, the findings of the thesis also speak to the Institutionalist and New Institutionalist literature (e.g. Powell and

DiMaggio 1991 2012, Peters 2012). In particular, as the thesis finds that party agreement on climate change also corresponds with ambitious climate change policy, the thesis lends support to Lijphart's (1999, 2012) assertion that consensual institutions promote 'kindler and gentler' policies. The thesis thus provides a practical application of his argument, demonstrating its merit. However, the thesis does not simply demonstrate the positive or negative effects of consensus or polarisation, but importantly identifies the underlying causes and drivers of such consensus and polarisation. As such, the thesis not only tests Lijphart's argument, but importantly complements it by explaining how such consensual institutional contexts are created in the first place.

Lastly (and as mentioned in Section 8.1.2.), by using the burgeoning fsQCA methodology to explain variation in party agreement on climate change the thesis represents an innovative contribution to the literature on set theoretic methods, as the method has never before been used to analyse party polarisation or consensus. Likewise, the application of the fsQCA methodology and its discussion will be of broader interest to other scholars thinking of applying it within the social sciences.

8.2.2. The generalisability of the findings

The thesis has examined variation in party agreement on climate change in eighteen OECD countries. The findings of the thesis should, however, be generalisable to other OECD countries and developed democracies than merely those included within this study, and also to other issues than merely climate change.

The argument put forward in the thesis should be applicable to other countries sharing similar features and the independent variables identified as relevant in explaining variation in party agreement on climate change. Thus in countries with competitive and democratic party systems; with constitutional and organisational

decision-making structures including institutional veto points; where there is freedom of organisation and effective interest articulation and aggregation; and where there are powerful vested interests or businesses that are potentially adversely affected by proposed policies; the argument put forward in this thesis should help us explain how parties strategise and are incentivised to either create party agreement or disagreement on the issue.

Countries sharing such features yet not included in the analysis consist of OECD members Austria, Denmark, Greece, Iceland, Japan and South Korea. It is less clear, however, whether the argument is applicable to newer democracies where party systems and institutions of interest aggregation are less well established, for example in Central and Eastern Europe (e.g. OECD members the Czech Republic, Estonia, Hungary, Latvia, Poland, the Slovak Republic, Slovenia) and in Latin America (e.g. OECD members Chile and Mexico). Similarly, it is unclear whether the findings are also relevant to the OECD country Israel, as it has a slightly different party system due to a very particular version of proportional representation – with the whole country working as one constituency (resulting in a large number of parties) – and the politics of Israel being dominated by Zionist parties. It is also doubtful whether the findings are generalisable to OECD member Turkey, as both 'demand side' and 'supply side' aspects of democracy have been significantly infringed upon under Recep Tayyip Erdoğan's Presidency.

Although the issue of climate change is unique by nature of the (dis)incentives it creates for political parties as a 'super wicked problem' (Lazarus 2009), the argument should nonetheless theoretically apply to other issues than merely climate change. It is conceivable that other 'new' issues that challenge parties' established ideologies, preferences and external relationships could be strategised over in a similar way. The argument might therefore be helpful in

explaining how parties respond to other long-term, transboundary or global problems, such as traditional environmental problems, international trade and the negative effects of globalisation, security and immigration, and other 'new issues' that arise in the future, which challenge people's levels of altruism or the power of vested interests. Thus the argument potentially helps us to understand how the institutional context of developed democracies influences prospects for party agreement when parties are programmatically challenged by new issues, when citizens' levels of altruism are challenged, or when vested interests are adversely effected by policy developments.

8.3. Limitations of the study

The investigations of the thesis have certain caveats and limitations, however, which are summarised in the following section. These relate to the dependent variable, the validity of the overall argument, the fsQCA methodology and the interview process.

8.3.1. Measuring the dependent variable

Due to a lack of comparable cross-country data on the relationship between political parties and the issue of climate change specifically, a salience-based measure of party positions was used for the dependent variable. Although this approach is common in the field and one of the main purposes of the CMP data, such positions nonetheless occasionally differ from party positions in expert surveys, as manifestos do not necessarily capture the entirety of parties' preferences (e.g. Carter 2013). Furthermore, as was pointed out in Chapter 4, using the inter-party difference in climate salience between the mainstream left- and the mainstream right-wing party as a measure of party agreement led to two counterintuitive results. In the case of Sweden there were seemingly high levels of polarisation, whilst in the US there were

only medium levels of polarisation. However, in the case of Sweden this outcome was the result of using the two largest mainstream parties to measure the difference as opposed to using blocks of parties. Interestingly, the apparent polarisation is the result of the right-wing party having higher levels of climate salience than its left-wing counterpart. Moreover, the right-wing party actually had similar levels of climate salience to the other left-wing parties in the country. Thus there is still evidence of cross-party consensus in Sweden using a salience-based measure. Importantly, given solid secondary evidence and given that Sweden is such a clear case of '1', this measure was subjectively altered in line with the fsQCA methodology. Likewise, in the US there were seemingly only medium levels of polarisation. This could, however, be the result of the low level of climate change salience in the country more generally, due to it being such a polarised issue. Similar to the Swedish case, however, there is strong secondary evidence that the US is a clear case of '0', thus making it less problematic to subjectively assign it this value. Such subjective assignments would have been far more problematic had the countries been somewhere on the scale between 0 and 1, as this would neither have been easy nor transparent to code on a continuous scale. However, as they are such clear cases of the lower and the higher 'anchor', *not* assigning them such values would be a larger error according to the fsQCA methodology. However, the two examples should nonetheless make us aware of the limitations of the measure of the dependent variable, or at least for certain countries, groups of parties or periods of time.

Related to the above, only one election was used to measure the dependent variable, whereas using several elections could potentially have 'evened out' some of the quirks noted above. Although the case was made for the election post-2008 being a 'hard case' – truly testing the parties' ambitions in what was a crucial period for

climate change policy – using several elections would naturally have strengthened the measure and validity of the findings. Manually extracting and coding the climate change salience from 127 parties' manifestos in different languages is a fairly time-consuming activity, however, and this consequently sets limits on the time frame and number of elections one can cover within the remits of a Ph.D. project. However, the fact that the measure aligns so closely with initial assumptions is very promising. Moreover, the fact that the interviews corroborated the findings of the fsQCA analysis using this dependent variable lends merit to its usefulness as a measure of party agreement.

8.3.2. The validity of the overall argument

A second caveat of the thesis relates to how confident we can be about the validity of the overall argument. Data limitations left only eighteen countries available for analysis, and as such there were not enough countries in order to run a multi-level analysis. Such a systematised and large-N analysis would have been a desirable complement in order to ascertain the relative importance of party- and country characteristics in explaining the outcome, and strengthen the validity of the thesis' argument. However, this limitation has been circumvented through the nested analysis and the use of mixed methods, where the thesis has combined the study of the wider universe of political parties and countries with an intensive and qualitative controlled comparison. Thus given the combination of analyses at different levels and using different methods – and importantly as they all point towards similar relationships – we can therefore conclude with some confidence that the argument of the thesis has both external and internal validity.

8.3.3. The fsQCA methodology

Chapter 4 outlined how one of the methodologies used in the thesis, namely fsQCA analysis, has become the topic of increased methodological debate in recent years, relating to both its methodological distinctiveness and usefulness in generating inferential claims about causation. The limitations of the method are unlikely to have significantly weakened the overall argument made in this thesis, however, as it has been tested and complemented by an in-depth qualitative analysis, corroborating its findings. Importantly, a key strength of the method is in testing initial assumptions and selecting case studies, which, as part of a nested analysis, was the main function of the method within this particular investigation.

8.3.4. The interview process

A few challenges were also encountered in the interview process. Although forty-four interviews were conducted in total, with an even spread across both case study countries, the interviews were not spread evenly within the countries. Perhaps unsurprisingly, it proved to be very hard to get conservative Coalition politicians in Australia to agree to be interviewed about climate change, and only three Coalition politicians were interviewed. Similarly, Australian civil servants were extremely hesitant or unwilling to allow themselves to be interviewed, citing the uncertain and highly politicised nature of the policy area. As such, only two civil servants – one retired – were interviewed. However, all of the interviews were with people in positions of significant insight or influence and lasted for around an hour, thus the quality of the interviews was good and allowed for the arrival at conclusions with confidence. The Australian interviews were conducted first, so initially at least they had more of an exploratory element to them and hypotheses changed over time, whereas the Norwegian interviews, conducted last, became more confirmatory in

nature. In Norway there was a good spread of parties interviewed, with one exception. The author failed to persuade any of the Christian People's Party's ten elected representatives or surrounding advisors to agree to an interview. In fact, there was a surprising lack of response from them, which might simply reveal their small party organisational machine. Nonetheless, all the interviews were again of good quality and with highly relevant actors, and did shed light on the Christian People's Party, albeit through second-hand knowledge.

8.4. Directions for future research

Building on the contributions of the thesis and the wider relevance and limitations of the investigations outlined above, it is possible to identify several avenues for future research.

Firstly, it would be beneficial to strengthen the data and findings of the thesis by covering a longer period of time and more countries. This would allow us to assess the value of the salience-based measure of parties' climate change positions, and moreover make a multi-level analysis feasible. The thesis has highlighted the need for more sources of data, and particularly cross-national sources, examining the relationship between political parties and climate change, thus alternate measures would also be a welcome addition to the field. Following existing methods in related literature it would be interesting to develop measures of party polarisation using content analysis of media (see Azzimonti 2013), and for expert surveys to start differentiating between traditional environmental issues and climate change, allowing for the comparison and triangulation of measures.

Secondly, and as mentioned in Chapter 3, it would be valuable to unpack the various features of parties' left-right ideology to see which specific features drive the variation in their climate change positions, and similarly which element of the

climate change issue (state intervention or altruism) help explain the variation in the outcome. Related to this, the inclusion of more party characteristics in the analysis (such as party funding and levels of party decentralisation) would strengthen and nuance the findings of the thesis, and would thus be a useful complement once such comparable data becomes available. Unfortunately for the purposes of this thesis, the Political Party Database Project – which is a 'cross-national initiative to establish an online public database as a central source for key information about political party organization, party resources, leadership selection, and partisan political participation in many representative democracies' (PPDB 2016) – release their first round of data on 122 parties in nineteen countries in January 2017. Once this data is available, however, future research could with benefit examine whether levels and methods of party funding affect their relationship to vested interests and party funders, thus potentially hindering the creation of party agreement on climate change, and also how significant party decentralisation is in understanding the role of veto points and federal institutions, and in explaining the variation in the outcome.

Thirdly, the focus of this thesis has been at the national or federal level. However, further research should be directed at exploring the dynamics of state level party politics on climate change in federal countries, and explore the interaction of the various levels of government in more detail than was possible within this investigation. Given that the presence of veto points and the regional concentration of fossil fuel interests and climate change concern have been identified as important explanations for variation in party agreement, it would be valuable to examine in more detail the ways in which state level party politics can facilitate or hinder national party agreement and climate ambitions.

8.5. Conclusion

By synthesising the comparative climate policy literature with the party politics literature, this thesis has sought to explain variation in party agreement on climate change, and the puzzle as to why some countries experience cross-party consensus on the issue whilst others experience party polarisation. Having identified a gap in the literature on partisan divisions over the environment and climate change – noting that it identifies the presence or growth of polarisation only and not its underlying causes or drivers, and highlighting how this literature is focused on single country case studies and polarisation only – the thesis has taken a comparative approach, examining the causes and drivers of cross-party consensus and party polarisation across eighteen developed countries. The thesis also provides much-needed empirical contributions to the field by developing a novel measure of parties' climate change salience and agreement based on Comparative Manifesto Project data. By taking these steps, the thesis makes important contributions to both bodies of literature. Firstly, by focusing on the role of political parties and party characteristics, the thesis fills a significant gap in the comparative party politics literature, which has largely ignored party politics and focused on country characteristics or international negotiations. Secondly, by focusing on how mainstream parties respond to the issue of climate change, the thesis makes an important contribution to the party politics literature, which has mainly focused on the environment or green parties only. Thirdly, by combining the two bodies of literature, the thesis sheds light on how party and country characteristics interact, i.e. how the institutional context moderates the behaviour of political parties, and how parties in turn shape climate change outcomes and performances of states.

The investigation has been conducted through a nested analysis using mixed methods, starting with an examination of the wider universe of political parties and

countries through large- and medium-N statistical analyses, before selecting and comparing two case studies through the Method of Difference (Mill 1843). The argument was made to compare Australia and Norway, as they share significant similarities – most notably that they are both major fossil fuel exporters – yet differ maximally on the dependent variable. The investigation has yielded four broad findings based on the four main chapters of the thesis.

Firstly, the thesis has found that mainstream parties have not made climate change a salient issue and that in contrast to traditional environmental issues, parties' left-right ideology significantly helps explain why they embrace the issue or not. As such, the thesis argues that contrary to common conceptions, climate change can be a substantively different issue from the environment, and a partisan as opposed to a valence issue.

Secondly, the thesis found that parties will polarise over climate change if there is a presence of fossil fuel interests, multiple veto points, pluralist institutions and a majoritarian electoral system in the country. Such fossil fuel interests will not have a polarising effect, however, if combined with few veto points and corporatist institutions. Countries that have few veto points, corporatist institutions and a proportional electoral system experience strong cross-party consensus. The findings of the thesis thus challenge the common assumption that the presence of fossil fuels will automatically have a negative or polarising effect. Rather, the thesis demonstrates the critical influence of the institutional context, which appears to moderate the effects of the fossil fuel interests and influences the behaviour of the political parties.

Thirdly, the thesis has identified that differences in public concern for climate change can influence the prospects of creating party agreement on the issue, as the perception by politicians of low or divided public opinion can incentivise or justify

inaction on the issue, whereas the perception of high levels of concern can incentivise convergence and action. Moreover, the relevance of partisanship in explaining levels of concern in Australia supports the argument in the thesis that climate change can be a partisan issue.

Lastly, through the in-depth and qualitative comparison of Australia and Norway, the various explanations for variation in party agreement were tested and examined in more detail. Based on forty-four interviews with policy-makers and policy-shapers in both countries, the above arguments and factors were tested, elaborated and compared for their relative importance in explaining the variation. The investigation found that although all the identified factors – ideological, institutional and societal – interacted and played an important role in facilitating or hindering party agreement on climate change, the institutional context was relatively more influential, thus demonstrating that party agreement is more an outcome of party strategic behaviour within the context of domestic party competition than it is a result of ideology or societal factors. This finding emphasises the critical role of political parties and party competition in explaining countries' climate change performances and in making the international climate change regime a success.

Appendices

Appendix I. Proportion of manifestos devoted to climate change

Table 1A. Proportion of manifesto devoted to climate change.

Country	Party	Climate Change Salience
Sweden	V	0.094488189
Sweden	SAP	0.007092199
Sweden	FP	0.035986914
Sweden	Kd	0.025
Sweden	MSP	0.040611814
Sweden	SD	0
Norway	SV	0.098482293
Norway	AP	0.053959965
Norway	V	0.083192568
Norway	KrF	0.063283756
Norway	H	0.054499366
Norway	SP	0.087509166
Norway	FRP	0.006233304
Finland	VL	0.054140127
Finland	VAS	0.026595745
Finland	SSDP	0.004901961
Finland	KD	0.014925373
Finland	KK	0.028761062
Finland	SKF	0.009847807
Finland	PS	0.00062422
Finland	RKP/SFP	0.005681818
Belgium	Green	0.021116139
Belgium	SPA	0.008695652
Belgium	Open VLD	0.008733624
Belgium	LDD List	0
Belgium	CD & V	0.003917728
Belgium	N-VA F.A.	0.002941176
Belgium	VB Flemish	0.004398827
Netherlands	GL	0.032092426
Netherlands	SP	0.018518519
Netherlands	PvDA	0.008318479

Netherlands	D66	0.020344828
Netherlands	VVD	0.009855453
Netherlands	CDA	0.012933264
Netherlands	CU	0.024158126
Netherlands	PVV	0.004424779
Netherlands	PvdD	0.066420664
Netherlands	SGP	0.013119534
Luxembourg	GLEI-GA	0.076487252
Luxembourg	Left	0.048617731
Luxembourg	LSAP/POSL	0.04340836
Luxembourg	DP/PD	0.057900244
Luxembourg	CSV/PSC	0.027894737
Luxembourg	ADR alt.	0.02027027
France	FDG	0.018495684
France	Les Verts	0.056716418
France	PRG	0.014056225
France	PS	0.029787234
France	PR	0.016713092
France	MoDem	0.044025157
France	UMP	0.00750469
France	NC	0.031782066
France	AC	0.02173913
France	FN	0.017191977
Italy	RC	0.036247335
Italy	PdL	0.038135593
Italy	SEL	0.063795853
Italy	PD	0
Italy	CD	0.00477327
Italy	SC	0.033573141
Italy	UdC	0.008888889
Italy	FDI-CDN	0.042047532
Italy	3L	0
Italy	SVPS	0.008495146
Italy	VdA–APF	0
Spain	Geroa Bai	0.060728745
Spain	Amaiur	0
Spain	Compromís-Q	0.050243112

Spain	IU	0.027389603
Spain	PSOE	0.029764549
Spain	UPyD	0.030523256
Spain	PP	0.012416428
Spain	C&U	0.016774892
Spain	FAC	0.021868787
Spain	PNV/EAJ	0.022167488
Spain	ERC	0.012225818
Spain	CC	0.003546099
Spain	BNG	0.024856597
Portugal	PEV	0.095588235
Portugal	BE	0.037779491
Portugal	PCP	0
Portugal	PS	0.020501139
Portugal	PSD	0.017059024
Portugal	CDS-PP	0.005718954
Germany	90/Greens	0.068321324
Germany	LINKE	0.040564374
Germany	SPD	0.035557507
Germany	FDP	0.027166882
Germany	CDU/CSU	0.036453202
Switzerland	GLP	0.136842105
Switzerland	SPS/PPS	0.042253521
Switzerland	FDP/PRD	0.017021277
Switzerland	CVP/PDC	0.151515152
Switzerland	EVP/PEV	0.048780488
Switzerland	CSP/PCS	0.118541033
Switzerland	SVP/UDC	0
Switzerland	BDP/PBD	0.113636364
Switzerland	MCG	0.052631579
Great Britain	Labour	0.039717564
Great Britain	Liberal Democrats	0.055214724
Great Britain	Conservative	0.047661871
Ireland	ULA	0.028846154
Ireland	Greens	0.095505618
Ireland	Socialist	0
Ireland	Labour	0.027042916

Ireland	Fine Gael	0.016726404
Ireland	Fianna Fáil	0.001328021
Ireland	Sinn Féin	0.003039514
United States	Democrats	0.023655914
United States	Republicans	0.001673173
Canada	Greens	0.107142857
Canada	NDP	0.066465257
Canada	LP	0.085313175
Canada	CP	0.023193577
Canada	BQ	0.057766367
Australia	Greens	0.110371603
Australia	ALP	0.062176166
Australia	LPA	0.014925373
Australia	NPA	0.062142273
New Zealand	Greens	0.007142857
New Zealand	Labour	0.01025641
New Zealand	ACT NZ	0
New Zealand	United Future	0
New Zealand	National	0
New Zealand	NZF	0
New Zealand	Maori	0
New Zealand	Mana Mana	0.013752456

Appendix II. List of interviewees

Australian interviewees:

Coalition politicians:

1. John Anderson – November 3 2015 (Deputy Prime Minister of Australia and Leader of the National Party of Australia from July 1999 to July 2005).
2. Anonymous Liberal MP – December 3 2015
3. Anonymous Liberal MP – December 14 2015

Australian Labor Party politicians:

4. Mark Dreyfus – November 23 2015 (Labor MP; Parliamentary Secretary for Climate Change and Energy Efficiency during the 2nd Gillard Ministry; Dec 2011 appointed Parliamentary Secretary for Industry and Innovation)
5. Anonymous Labor MP – November 24 2015
6. Anonymous Labor MP – November 26 2015
7. Greg Combet – November 26 2015 (Minister for Climate Change, Industry and Innovation 2nd Gillard Ministry; Parliamentary Secretary for Climate Change 1st Rudd Ministry).
8. Anonymous Labor MP – November 27 2015
9. Kim Carr – December 7 2015 (Labor Senator)

Australian Greens politicians:

10. Adam Bandt – November 9 2015 (Green MP)
11. Janet Rice – December 01 2015 (Green Senator)

ENGO representatives:

12. Vica Bayley – October 28 2015 (Campaign manager, The Wilderness Society)
13. Cam Walker – November 25 2015 (Climate Justice, Friends of the Earth Australia)
14. Professor Will Steffen – December 2 2015 (Climate Commissioner on the Gillard Government's 'Climate Commission', now the not-for profit 'Climate Council'; served on the Multi-Party Climate Change Committee 2010-11)
15. Anonymous representative from an influential ENGO – December 21 2015

Fossil fuel industry representatives:

16. Alex Gosman – November 5 2015 (CEO, Australian Industry Greenhouse Network, Industry Association responsible for around 60% of Australian emissions)
17. Peter Colley – November 20 2015 (Construction, Forestry, Mining and Energy Union)
18. Tom Bostock – November 23 2015 (Director, Australia Environment Foundation, a climate sceptical not-for-profit advocacy organisation)
19. Anonymous representative from the Minerals Council of Australia – December 17 2015

Civil or public servants:

20. Anonymous senior civil servant – October 30 2015 (Environment)
21. Clive Hamilton – November 16 2015 (Member of the Climate Change Authority, which provides independent expert advice on Australian Government climate change mitigation initiatives.)
22. Anonymous senior civil servant – November 18 2015 (Environment)

Norwegian interviewees:

Progress Party politicians:

1. Tord Lien – May 10 2016 (Minister for Petroleum and Energy 2013-)
2. Anonymous MP – April 25 2016

Conservative Party politicians:

3. Lars Andreas Lunde – April 22 2016 (Deputy Minister of Climate and Environment)
4. Tina Bru – April 26 2016 (Conservative MP; member of the Standing Committee on Energy and the Environment; spokeswoman for the party on these issues 2015-)
5. Nikolai Astrup – April 28 2016 (Conservative MP; member of the Standing Committee on Energy and the Environment 2009-2015; spokesman for the party on these issues until 2015; leader of the Standing Committee on Transport)

Liberal Party politicians:

6. Ola Elvestuen – April 25 2016 (Liberal MP; Leader Standing Committee on Energy and the Environment; spokesman for the party on these issues)

Centre Party politicians:

7. Anonymous MP – April 20 2016
8. Anonymous MP – May 03 2016

Labour Party politicians:

9. Per Rune Henriksen – April 14 2016 (Labour MP; member Standing Committee on Energy and the Environment; State Secretary in the Ministry of Petroleum and Energy 2010-2013)
10. Terje Aasland – May 10 2016 (Labour MP; member Standing Committee on Energy and the Environment; spokesman for the party on these issues)

Socialist Left Party politicians:

11. Erik Solheim – March 4 2016 (Minister of the Environment 2007-2012; MP 1989-2001; party leader 1987-1997; Executive Director of the United Nations Environment Programme)
12. Kristin Halvorsen – April 14 2016 (Party leader 1997-2012; Minister of Finance 2005-2009; Director at CICERO)
13. Heikki Eidsvoll Holmås – May 3 2016 (MP; Minister of International Development 2012-2013)

Green Party politicians:

14. Rasmus Hansson – April 12 2016 (Spokesperson and MP for the Greens)

ENGO representatives:

15. Jon Bjartnes – April 15 2016 (Acting head of climate and energy team, World Wide Fund for Nature (WWF) Norway)
16. Lars Haltbrekken – April 18 2016 (Chairman, Friends of the Earth Norway; member of the Minister of Climate and Environment's Climate Council)

Fossil fuel industry representatives:

17. Hildegunn T. Blindheim – April 22 2016 (Director climate and the environment, Norwegian Oil and Gas Association; member of Labour's Climate Panel)
18. Kristin Bremer Nebben – May 04 2016 (General Manager, Norwegian Petroleum Society)
19. Hans-Christian Gabrielsen – May 12 2016 (The Norwegian Confederation of Trade Unions (LO); member of the Minister of Climate and Environment's Climate Council)

Civil or public servants:

20. Idar Kreutzer – January 24 2016 (Co-head (along with Connie Hedegaard) of the Government's Expert Commission on Green Competitiveness; member of the Minister of Climate and Environment's Climate Council; Managing Director Finance Norway)
21. Anonymous senior civil servant – April 22 2016 (Climate and Environment)
22. Anonymous senior civil servant – May 2 2016 (Petroleum and Energy)

Abbreviations

ABS	Australian Bureau of Statistics
AC	Alliance Centriste (Centrist Alliance, France)
ADR	Parti Réformiste d'Alternative Démocratique (Alternative Democatic Reform Party, Luxembourg)
ALP	Australian Labor Party
ANZUS	The Australia, New Zealand, United States Security Treaty
AP	Arbeiderpartiet **(**Norwegian Labour Party)
BDP/PDB	Parti Bourgeois Démocratique Suisse (Conservative Democratic Party of Switzerland)
BE	Bloco de Esquerda (Left Bloc, Portugal)
BNG	Bloque Nacionalista Galego (Galician Nationalist Bloc, Spain)
BQ	Bloc Québécois (Quebec Bloc, Canada)
CC	Coalición Canaria (Canarian Coalition, Spain)
CCS	Carbon capture and storage
CD	Centro Democratico (Democratic Centre, Italy)
CDA	Christen-Democratisch Appèl (Christian Democratic Appeal, Netherlands)
CDM	Clean Development Mechanism
CDS-PP	Centro Democrático Social-Partido Popular (Social Democratic Center-Popular Party, Portugal)
CDU/CSU	Christlich-Demokratische Union/ Christlich-Soziale Union (Christian Democratic Union/ Christian Social Union, Germany)
CD&V	Christen-Democratisch en Vlaams (Christian Democratic and Flemish, Belgium)
CiU	Convergència i Unió (Convergence and Union, Spain)
CMP	Comparative Manifesto Project
COAG	Council of Australian Governments
CP	Conservative Party of Canada
CSP/PCS	Parti Chrétien-Social (Christian Social Party, Switzerland)
CSV/PCS	Parti Chrétien Social (Christian Social People's Party, Luxembourg)
CU	ChristenUnie (Christian Union, Netherlands)
CVP/PDC	Parti démocrate-chrétien suisse (Christian Democratic People's Party of Switzerland)
DP/PD	Parti Démocratique (Democratic Party, Luxembourg)
D'66	Democraten'66 (Democrats'66, Netherlands)
EEA	European Economic Area

ENGO	Environmental non-governmental organisation
ERC	Esquerra Republicana de Catalunya (Catalan Republican Left, Spain)
EU	European Union
EVP/PEV	Parti Evangélique Suisse (Protestant People's Party of Switzerland)
FAC	Foro Asturias (Forum Asturias, Spain)
FDG	Front de Gauche (Left Front, France)
FDI-CDN	Fratelli d'Italia - Centrodestra Nazionale (Brothers of Italy - National Centre-right)
FDP	Freie Demokratische Partei (Free Democratic Party, Germany)
FDP/PRD	Parti radical-démocratique suisse (Radical Democratic Party, Switzerland)
FN	Front National (National Front, France)
FoE	Friends of the Earth
FP	Folkpartiet (People's Party Sweden)
FrP	Fremskrittspartiet (Progress Party, Norway)
fsQCA	Fuzzy set qualitative comparative analysis
GDP pc	Gross domestic product per capita
GFC	Global financial crisis
GL	Groen Links (Green Left, Netherlands)
GLEI-GAP	Liste Verte, Initiative Écologiste - Parti de l'Alternative Verte (Green Left Ecological Initiative - Green Alternative, Luxembourg)
GLP	Grünliberale Partei der Schweiz (Green Liberal Party, Switzerland)
H	Høyre (Conservative Party, Norway)
IEA	International Energy Agency
IMF	International Monetary Fund
INDC	Intended Nationally Determined Contribution
IPCC	Intergovernmental Panel on Climate Change
IU	Izquierda Unida (United Left, Spain)
KD	Suomen Kristillisdemokraatit (Christian Democrats in Finland)
Kd	Kristdemokraterna (Christian Democrats, Sweden)
KK	Kansallinen Kokoomus (National Coalition, Finland)
KrF	Kristelig Folkeparti (Christian People's Party, Norway)
LDD	Lijst Dedecker (List Dedecker, Belgium)
LINKE	Die Linke (The Left, Germany)
LNP	Liberal National Party of Queensland
LO	Landsorganisasjonen i Norge (Norwegian Confederation of Trade Unions)
LP	Liberal Party of Canada
LPA	Liberal Party of Australia

LSAP/POSL	Parti Ouvrier POSL Socialiste Luxembourgeois (Socialist Workers' Party of Luxembourg)
MCG	Mouvement Citoyens Genevios (Geneva Citizens' Movement, Switzerland)
MoDem	Mouvement Démocrate (Democratic Mouvement, France)
MP	Member of Parliament
MPE	Ministry of Petroleum and Energy (Norway)
MSP	Moderata Samlingspartiet (Moderate Coalition Party, Sweden)
NC	Nouveau Centre (New Centre, France)
NDP	New Democratic Party, Canada
NPA	National Party of Australia
NV-A	Nieuw-Vlaamse Alliantie (New Flemish Alliance, Belgium)
NZF	New Zealand First Party
OECD	Organisation for Economic Co-operation and Development
OpenVLD	Open Vlaamse Liberalen en Demokraten (Open Flemish Liberals and Democrats, Belgium)
PCP	Partido Comunista Português (Portuguese Communist Party)
PD	Partito Democratico (Democratic Party, Italy)
PdL	Il Popolo della Libertà (People of Freedom, Italy)
PEV	Partido Ecologista 'Os Verdes' (Ecologist Party 'The Greens', Portugal)
PNV/EAJ	Euzko Alderdi Jeltzalea (Basque Nationalist Party, Spain)
PP	Partido Popular (Popular Party, Spain)
PR	Parti Radical (Radical Party, France)
PRG	Parti Radical de Gauche (Left Radical Party, France)
PS (Finland)	Perussuomalaiset (True Finns)
PS (France)	Parti Socialiste (Socialist Party)
PS (Portugal)	Partido Socialista (Socialist Party)
PSD	Partido Social Democrata (Social Democratic Party, Portugal)
PSOE	Partido Socialista Obrero Español (Spanish Socialist Workers' Party)
PvdA	Partij van de Arbeid (Labour Party, Netherlands)
PvdD	Partij voor de Dieren (Party for the Animals, Netherlands)
PVV	Partij voor de Vrijheid (Party of Freedom, Netherlands)
RC	Rivoluzione Civile (Civil Revolution, Italy)
REDD+	**'**Reducing emissions from deforestation and forest degradation in developing countries'
RKP/SFP	Ruotsalainen Kansanpuolue/Svenska Folkpartiet (Swedish 19 People's Party)

SAP	Socialdemokratiska Arbetareparti (Social Democratic Labour Party, Sweden)
SC	Scelta Civica (Civic Choice, Italy)
SD	Sverigedemokraterna (Sweden Democrats)
SEL	Sinistra Ecologia Libertà (Left Ecology Freedom, Italy)
SGP	Staatskundig Gereformeerde Partij (Reformed Political Party, Netherlands)
SK	Suomen Kansanpuolue (Finnish People's Party)
SP	Socialistische Partij (Socialist Party, Netherlands)
Sp	Senterpartiet (Centre Party, Norway)
Sp.a	Socialistische Partij Anders (Socialist Party Different, Belgium)
SPD	Sozialdemokratische Partei Deutschlands (Social Democratic Party of Germany)
SPS/PSS	Parti socialiste suisse (Social Democratic Party of Switzerland)
SSB	Statistisk sentralbyrå (Statistics Norway)
SSDP	Suomen Sosialidemokraattinen Puolue (Finnish Social Democrats)
SV	Sosialistisk Venstreparti (Socialist Left Party, Norway)
SVP	Südtiroler Volkspartei (South Tyrolean People's Party, Italy)
SVP/UDC	Union démocratique du centre (Swiss People's Party)
TPES	Total primary energy supply
TWS	The Wilderness Society
UdC	Unione di Centro (Union of the Center, Italy)
ULA	United Left Alliance, Ireland
UMP	Union pour un Mouvement Populaire (Union for a Popular Movement, France)
UN	United Nations
UPyD	Uníon, Progreso y Democracia (Union, Progress and Democracy, Spain)
V	Venstre (Liberal Party, Norway)
VAS	Vasemmistoliitto (Left Wing Alliance, Finland)
VB	Vlaams Blok (Flemish Bloc, Belgium)
VdA-APF	Vallée d'Aoste Autonomie Progrès Fédéralisme (Autonomy Progress Federalism Aosta Valley, Italy)
VL	Vihreä Liitto (Green Union, Finland)
V Left	Vänsterpartiet (Left Party, Sweden)
VVD	Volkspartij voor Vrijheid en Democratie (People's Party for Freedom and Democracy, Netherlands)
WWF	World Wide Fund for Nature
3L	Lista Lavoro e Libertà (Labour and Freedom List, Italy)

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