Measuring and Explaining the Intra-Coalition Dynamics of Coalition Governance



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To Mum and Dad
for their unwavering support.

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Abstract

Coalition governance, the period between coalition formation and termination, is a critical, yet understudied aspect of a coalition cabinet's life cycle. The opaque nature of multi-party governance poses significant challenges to understanding its day-to-day operations, and, as a result, existing literature is overly reliant on static, indirect, measurements. Since coalition governance is theorised to be variable and dynamic, this means significant details pertaining to party behaviour remain obscured. This thesis sets out to study the behaviour of political parties in coalition governance by capturing coalition differentiation. Whether coalition parties choose to defend distinct party goals, as opposed to the coalition consensus, marks a conscious departure from a public united front. Since unity is necessary for coalition effectiveness, this can have serious implications for coalition governance itself. The precise role of differentiation in coalition governance is established in three separate articles. The first article applies supervised text classification to measure, dynamically, coalition party differentiation in parliamentary speech. This results in a monthly party measure for 69 cabinets from ten European countries, making it the first comparative measure of differentiation. The second article employs this measure and establishes that differentiation is predominantly displayed by coalition parties with strong bargaining power. The final article considers the purpose of coalition differentiation and thus what one can infer about coalition governance from its variation. The resulting proposition is that parties differentiate to display bargaining power when navigating uncertain bargaining environments, and, in this way, influence coalition negotiations. By measuring differentiating behaviour dynamically, and subsequently establishing its prevalence and purpose in coalition bargaining, this thesis sheds light on the secretive process of coalition governance. Moreover, this novel comparative measure of coalition differentiation enables the dynamic testing of core assumptions which previously have eluded analysis regarding coalition party representation, accountability, electoral performance, and future coalition inclusion.

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List of Abbreviations

CDU	Christlich Demokratische Union Deutschlands, Christian Democratic Union of Germany
CIP	Coalition Inclusion Probabilities
CMP	Comparative Manifesto Project
EIU	The Economist Inteligence Unit
FPÖ	Freiheitliche Partei Österreichs, Freedom Party of Austria
LPF	Lijst Pim Fortuyn, List Pim Fortuyn
MNNB	Mulinomial Naïve Bayes
MP	Member of Parliament
OBP	Obstructive Bargaining Power
OECD	Organisation for Economic Co-operation and Development
ÖVP	Österreichische Volkspartei, Austrian People's Party
PAGED	Party Government in Europe Database
PCR	Popularity Correcting Response
RV	Radikale Venstre, Danish Social Liberal Party
SAG	Stochastic Average Descent
SGD	Stochastic Gradient Descent
SMOTE	Synthetic Minority Oversampling Technique
SPD	Sozialdemokratische Partei Deutschlands, Social Democratic Party of Germany
SPÖ	Sozialdemokratische Partei Österreichs, Social Democratic Party of Austria
SVM	Support Vector Machine
TF-IDF	Term Frequency - Inverse Document Frequency
UEPR	Uniform Election Proximity Response
VVD	Volkspartij voor Vrijheid en Democratie, People's Party for Freedom and Democracy of The Netherlands

The curious point about the Cabinet is that so little is known about it.

— Walter Bagehot (1965, p.68)

1 Introduction

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1.1 Motivation

A coalition government, where two or more political parties share power, goes through different stages in its life. Its conception, or formation, marks the onset of a coalition's existence, yet this stage does not refer to the commencing of its incumbency. Instead, coalition formation refers to the period directly following an election, where the elected parties negotiate with the aim to join in government together. Negotiations will pertain to which parties could cooperate together, and subsequently, which ministries will be represented by each party and what conflict management mechanisms are put in place. It concerns a volatile stage of coalition life. Not all formation negotiations are successful, and therefore not all coalition configurations continue on to the next stage. Yet when they do, the newly joined

political parties enter the subsequent stage of a coalition government, the incumbency itself. This stage is referred to as coalition governance and groups together all government activity and the resulting output generated by the cooperating parties during their time in office. Finally, the concluding stage of a coalition government's life is its termination. This can either be planned, as the constitutional term in office comes to a close, or pre-term, in the case of disintegrating cooperation. Once a coalition government disbands, the whole process commences from the start again, whether that is by forming a new government from the parties already represented in parliament, or by starting formation after a new general election. Due to its cyclical nature, this process has been coined the life cycle of coalition governments (Strøm, Müller, and Bergman, 2010).

Out of these three stages of a coalition's life cycle, it is formation and termination which have consistently garnered the most public and scholarly attention. Significant bodies of work have sought to understand the processes giving rise to coalition governments (e.g., Andeweg and Timmermans, 2010; Dumont et al., 2024; Winter and Dumont, 2010), and those eventually leading to their demise (e.g., Grofman and Roozendaal, 1997; Krauss, 2018; Maoz and Somer-Topcu, 2010). By comparison, relatively little attention has been devoted to the actual incumbency in between these bookends. Initially, this lacuna might seem curious, if one considers that coalition governance covers the vast majority of a coalition's life and includes the decisions and outcomes most likely to affect the polity it has been appointed to represent. Yet, upon closer inspection, the nature of coalition governance does explain why it has eluded significant empirical analysis. More precisely, the cooperation of political parties whilst in office is generally characterised by opacity. The general public is not privy to the bargaining and decision-making processes that these parties engage in. Instead, any coalition conflict or disagreements concerning coalition governance outcomes are largely fought out behind closed doors (Andeweg and Timmermans, 2010).

Any expectations regarding coalition governance and the management of the inevitable disagreements between parties have been largely born out of country-

specific analyses commonly found in edited volumes on the study of coalition governments (Blondel and Müller-Rommel, 1988; Bogdanor, 1983; Müller and Strøm, 2000). These chapters are written by country experts and rely on detailed qualitative accounts of coalition governance. Due to their country-specific nature these approaches are not conducive to systematic comparative analysis. Without such systematic analysis, no general principles on coalition governance can be established.

The study of coalition governments has actively sought to circumvent this information shortage, most commonly by inferring from coalition formation how governance is likely to progress. Specifically, these indirect approaches identify a number of largely static variables likely to affect coalition governance. These include specific institutions which shape the bargaining environment and are therefore likely to manage cooperation. Examples of these include the presence of a written coalition agreement to hold parties accountable (Klüver and Bäck, 2019; Klüver et al., 2023; Krauss, 2018; Moury, 2012), an empowered legislative committee system facilitating information exchange between coalition parties (Martin and Vanberg, 2011, 2020a; Zubek, 2015), and the appointment of junior ministers to specialise in each other's ministerial portfolios (Lipsmeyer and Pierce, 2011). Other static variables used include stable characteristics of the coalition itself which are likely to affect the propensity for disagreements. These include the number of parties in office (Warwick, 1994), as well as the distance between the preferred ideological positions of those parties (Greene, 2017; Warwick, 1992). By contrasting such indirect measures with an observable governance outcome or duration in office, inferences can be made about how these characteristics are likely to affect governance processes themselves.

Through such comparison, these indirect approaches have provided clear expectations and associated evidence to indicate which stable variables are likely to systematically affect coalition governance. Yet, in contrast, formal theories on coalition bargaining have identified that the bargaining which characterises incumbency, and the associated party behaviour, is inherently dynamic and variable throughout their incumbency (Laver and Shepsle, 1996; Lupia and Strøm, 1995, 2010). More precisely, the conditions on which the coalition originally formed, are

likely to change whilst the government is in office. Unexpected external developments or pressures may change what coalition parties find as an acceptable compromise, resulting in a renewed bargaining attempt to find a consensus appropriate for the new status quo. This implies that even with a good foundation of static variables, a lot of the bargaining process is left obscured, especially the dynamics pertaining to individual party behaviour. This is unsurprising as it is exactly these dynamic processes for which there is little to no information available. As stated by Strøm, Bergman, et al. (2010): 'For most of its history coalition studies have lived on a diet that has been largely devoid of actual behavioural data, save on cabinet formation and termination' (p. 423–424).

This implies that with the current understanding of coalition governance, little can be said about how governance outcomes came to be, or what role individual parties played in their conception. This is a serious shortcoming as it pertains to the process behind the majority of the world's democratic policy (Martin and Vanberg, 2020a). Not fully grasping the interaction between parties in office comes with serious implications since this process of negotiations is known to blur the link between electoral promises, and therefore a party's electoral mandate, and government activity (Klüver and Spoon, 2017; Klüver et al., 2023). Without fully understanding how these negotiations work and which parties are successful, one cannot accurately assess the quality of representation, nor democratic accountability (Fortunato, 2021; Klüver and Spoon, 2017; Plescia, Kritzinger, and Spoon, 2022). The consequences of such opacity do not only affect academic assessment, but also voters' perceptions (Powell, 2000). Martin and Vanberg (2020a) emphasise that 'for voters, knowing which parties they should hold responsible for policy outcomes, or understanding the implications of a particular vote choice, requires understanding the relative influence of coalition parties in policymaking' (p.362).

1.2 Research Question

Considering the importance of grasping individual party behaviour displayed as part of coalition governance, and the scarcity of information to shed light on this

process, the main research question of this doctoral thesis is:

> *How can the behaviour of coalition parties in the secretive processes of coalition governance be measured and studied dynamically?*

The main objective of this thesis is, therefore, to further open up the black box of coalition governance by including party behaviour in the comparative empirical study of a coalition government's incumbency. This is approached though the assessment and measurement of dynamic and observable coalition party behaviour. More precisely, whether a coalition party presents a united front with its coalition partners, or rather opts for presenting a distinct party identity, is observable throughout incumbency. Considering unity is a necessary condition for coalition effectiveness, such differentiation behaviour may have significant ramifications for coalition governance itself. This thesis sets out to capture coalition party differentiation dynamically, and subsequently establish the role this behaviour plays in coalition governance. In doing so, this thesis adheres to an article-based structure. This implies that in addition to a detailed literature review, the main research question is subdivided and addressed in three separate articles, each of which can be read and understood in isolation. The main argument, as well as the scope of each of these articles and their contributions to the main research question, are detailed below.

1.3 Thesis Overview

There is no question that coalition governance is inherently private, and the vast majority of party behaviour is unobservable. Nonetheless, this does not pertain to all party behaviour whilst in office. In fact, there is good reason to believe that when engaged in incumbency bargaining, parties are aware of what is visible to the general public and what it not. And, that they consequently use this distinction strategically (Martin and Vanberg, 2020b; Matthews, 2019). More precisely, coalition parties have a strong incentive to maintain a distinct identity in the eyes of the electorate, since they will be judged as separate entities when elections inevitably come back around.

This is especially pressing considering the perception of compromise is known to be severely penalised by voters (Fortunato, 2019a; Fortunato and Stevenson, 2013). To minimise such a penalty, coalition parties seek to differentiate from their coalition partners whilst in office (Fortunato, 2019b, 2021), and especially when elections draw near (Martin and Vanberg, 2008; Sagarzazu and Klüver, 2017). This implies defending, for all to see, party ideals instead of a united coalition front. Since such differentiation is a publicly facing coalition party behaviour during incumbency, it can be captured dynamically throughout a coalition's time in office. Yet, what does this behaviour tell us about coalition governance? The incentive to differentiate is juxtaposed by a simultaneous incentive to unite with coalition partners. Unity and agreement are necessary conditions for effective coalition governance, and hence differentiation is inconsistent with obtaining incumbency benefits. These competing incentives are referred to as the unity-differentiation dilemma (Boston and Bullock, 2010). This means that when differentiation prevails over unity, one can infer that private coalition governance is strained.

1.3.1 Measuring Differentiation

The first article presnted in Chapter 3 of this doctoral thesis sets out to measure coalition party differentiation dynamically. It is especially concerned with how such behaviour can be captured systematically, and across a large comparative sample. Coalition party differentiation can theoretically occur in any public facing forum. Yet, parliamentary speech is identified as an abundant source of coalition party communication, and therefore, coalition differentiation too. Moreover, parliamentary speech is not particularly resource intensive, and hence one would expect coalition parties are equally able to employ this tool. This makes legislative debates an ideal source of data to identify which parties are differentiating, and to what extent. In order to capture this, I train a supervised text classification algorithm to predict the party label of a speech based on the words used. The resulting accuracy of this classification is interpreted as a measure of differentiation: the better a classifying algorithm can distinguish a party label, the more distinct its members are speaking

in parliament. In contrast, the less accurate these classifications become, and thus the more the classifier is confusing one party's speeches for another, the more similar and united the coalition parties' members are presenting themselves in parliament. This process results in 4,328 monthly scores of coalition party differentiation for parties in 69 different cabinets across ten different European countries, making it the largest comparative dataset of its kind. The scores are then subjected to an extensive validation process, from which I conclude that this measure consistently captures coalition differentiation as conceptualised in the literature cited. As a result, this measure does not only establish parliamentary speech as a dynamic source of coalition party behaviour, it also provides a descriptive tool of coalition conflict.

1.3.2 Establishing Who Differentiates

The second article presented in Chapter 4 is concerned with understanding the variation in the differentiation measurement presented in the previous article. Existing theoretical accounts of coalition differentiation consider it an electoral signalling behaviour which parties employ to reaffirm their unique party identities, either to correct poor performance in the polls, or to prepare for an upcoming election (Fortunato, 2019a; Martin and Vanberg, 2008; Sagarzazu and Klüver, 2017). These theories implicitly presume that all parties are free to differentiate at their own discretion. Differentiation, however, is inherently obstructive to the processes behind coalition government outcomes. It is, therefore, unlikely that such behaviour is sustainable over the long term, or generally tolerated by coalition partners. Instead, the hypothesis in the second article emphasises that it is predominantly the parties with a strong bargaining position which will display differentiation behaviour. Such parties are empowered by their favourable alternatives to the current government configuration. As a result, they will not incur significant costs by introducing governance gridlock or even early termination. It is these empowered parties which get to signal to their electorate through public differentiation. In contrast, weaker coalition parties are more likely to assimilate and present a united front, since these parties are in no position to risk their government's collapse.

By employing the dynamic measure of differentiation from the first article, in conjunction with a novel measure of coalition bargaining power, the analysis in Chapter 4 confirms that an increase in bargaining power is closely followed by an increase in differentiation. This finding marks a clear departure from the existing theoretical expectations with regards to coalition party differentiation. Moreover, it establishes that not all coalition parties can employ differentiation equally. This restriction to differentiate experienced by weaker parties may explain why junior coalition parties are, on average, penalised more for coalition participation by the electorate, than their chief executive counterparts.

1.3.3 Differentiation and Governance

Capturing the dynamic variation in coalition differentiation, and establishing the conditions under which it occurs, does not yet identify what one can infer about coalition governance from this party behaviour. The purpose of differentiation is largely thought to be intended for an outward audience, which, as the previous article establishes, is a tool mostly available to strong coalition parties. It is unlikely, however, that coalition parties use their strong bargaining position to differentiate, and thereby interfere with governance, for the sole purpose of maintaining a favourable perception from the voters. Parties are not only vote-seeking, but also policy-seeking, and for the latter of these two, unity amongst coalition parties is of the essence. As a result, the third and final article presented in Chapter 5 puts forth a theory of coalition differentiation as a policy bargaining strategy. Existing work on coalition governance has already established that the most effective bargaining strategy a coalition party can employ is a threat to depart the coalition. Yet it is only likely to be wielded by parties which have viable alternatives to resort to, those being coalition parties with strong bargaining power. When the remaining parties have a vested interest in maintaining the government as it is, they will be likely to appease the threatening party by making concessions in the negotiations. Simultaneously, it has been established that the incumbency bargaining environment is riddled with uncertainty. This implies that the parties

partaking in bargaining are not always fully aware of each other's bargaining power. An exit threat will therefore only have the intended effect if the threatening party's bargaining power is recognised by the other coalition partners. The hypothesis put forward by the third article is that public differentiation by coalition parties are public displays of power, intended to add credibility to a privately made exit threat. By matching the bargaining power and differentiation behaviour displayed by chief executive coalition parties with the number of economic reforms seen in a year, the associated analysis establishes that solely having bargaining power is not sufficient to influence outcomes. Instead, it is the combination of bargaining power and differentiation behaviour which is positively associated with the number of reforms. Without a clear display of power, coalition parties cannot make a credible exit threat to influence coalition negotiations. This chapter, therefore, establishes the role of differentiation in coalition governance bargaining. And, as a result, the measure presented in the first article of this thesis can be employed to uncover incumbency dynamics previously gone untested.

Altogether these three articles present a novel and comparative approach to coalition governance through the measurement and analysis of coalition differentiation. Yet, prior to presenting these three articles in full, this thesis will first elaborate further on the research puzzle with a comprehensive literature review summarising the existing academic publications in this field. This is then followed by all three articles presented in the same order as they are introduced above. Finally, a concluding chapter will summarise the findings from all three articles and emphasise how, when combined, these shed light on coalition governance. This is then closely followed by a discussion of the implications these contributions have for existing literatures on coalition studies, as well as avenues for future research.

Clearly, peace and policy do not always go together in coalition cabinets.

— Timmermans and Andeweg (2000, p.386)

2 Coalition Governance Literature

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2.1 Introduction

Most democracies are governed by multiparty governments (Martin and Vanberg, 2020a). As they bring together two or more distinct political actors, such governments are associated with a certain degree of complexity at all stages of the coalition life cycle (T. Bergman et al., 2021). This life cycle commences with formation, followed by coalition incumbency, and is completed through termination, whether planned or not. In political scientific literature, coalition events of interest have almost exclusively concerned the start and end of this cycle. Existing work addresses, for example, which coalition configuration is most likely to form (Axelrod, 1970; Riker, 1962; Swaan, 1973), what explains how long the formation lasts (Ecker and Meyer, 2017; Laver and Benoit, 2015; Winter and Dumont, 2010), and the

distribution of ministerial portfolios amongst the parties in formation negotiations (Bäck et al., 2011; Ecker and Meyer, 2019; Laver and Shepsle, 1996). Additionally, a plethora of work attempts to explain why coalitions terminate prematurely (Maoz and Somer-Topcu, 2010; Schleiter and Evans, 2021; Warwick, 1994).

However, relatively little attention has been devoted to the bulk of the coalition life cycle in between these two bookends, a period coined by the term coalition governance. This is especially curious considering its essential role in both formation and termination. As stated by Laver (2021): 'If we want to understand the making and breaking of governments then we have to understand what happens in between these defining events. Politicians forming governments will anticipate the coalition governance that is implied. Coalition governments that fail mid-term do so because of some failure of coalition governance' (P.113). This lacuna in coalition research is in part caused by the opaque and secretive nature of coalition cooperation. The black box of multiparty governance has stifled empirical analysis for many decades, leaving theoretical work untested. It is only recently, with methodological advancements and increasing data availability, that this box is gradually being opened.

2.2 Theories of Coalition Governance

T. Bergman et al. (2021) introduce three models of coalition governance based on existing theories: the ministerial government model, the coalition compromise model, and the dominant prime minister model. All three address the broad relationship between the parties in office, and the extent to which each is able to pursue distinct policy preferences. Yet these existing theories of coalition governance remain general, and, as such, systematically overlook the game-theoretical nature of cooperation. These, therefore, fail to theorise on the behaviour of individual coalition parties. Outlined below are these three models, as well as a game-theoretical account of coalition governance, which describes the underlying dynamics of all three models.

Introduced by Laver and Shepsle (1990, 1996) the minister government model, or portfolio-allocation model, assumes that once ministerial portfolios have been allocated, each minister is granted unchecked power over the proceedings and

policy proposals generated by their respective ministries. Thus, it anticipates that the policy generated by each ministry will reflect the pure party preferences of the assigned minister, and as such, very little compromise is required once a coalition takes up office. Nevertheless, this model fully rests on the assumption that once portfolios have been divided, coalition parties are content with full unrestrained control in some respects, and none in others. In practice, this is rarely a happy consensus.

The process by which a coalition minister introduces legislative proposals in line with their respective party preferences, as opposed to a coalition consensus, is referred to as ministerial drift (Martin and Vanberg, 2011). In the minister government model, unrestrained ministerial drift occurs. Research has found, however, that coalition parties set in motion a number of institutional control mechanisms prior to taking office, in order to prevent ministerial drift from occurring in the first place. For example, the presence of a codified coalition agreement is likely to hold parties publicly accountable for any deviations (Klüver et al., 2023; Krauss, 2018; Moury, 2012). Moreover, by appointing junior ministers or committee chairs from a different coalition party than the minister holding the respective portfolio, coalition parties can specialise in each other's policy portfolios and thereby minimise the risk of information asymmetry (Carroll and Cox, 2012; Lipsmeyer and Pierce, 2011; Martin and Vanberg, 2011; Thies, 2001). It, therefore, is an oversimplification of the minister government model to assume that once in office, parties will relinquish control over a significant part of government operations.[1] The second model of coalition governance, the coalition compromise model, does take such institutional control mechanisms into consideration. This model is the most commonly used in the study of Western European coalitions and centres on 'inter-party compromise and negotiation of the entire government policy by means of meaningful coalition agreement, mutual monitoring, and detailed negotiation of government legislation between the government parties.' (T. Bergman et al., 2021, p. 3).

[1]Martin and Vanberg (2014), indeed, indicate empirically that this is true.

As the coalition compromise model continues to dominate the literature on coalition governance, T. Bergman et al. (2020) emphasise how such a model assumes a relatively equitable division of influence between the parties within a coalition. Especially with regards to coalitions in Eastern Europe, this is not always the case. As such, these authors introduce the dominant prime minister model to capture those coalitions characterised by a significantly imbalanced power structure. In the case of a very dominant chief executive party, such governments are more akin to a single-party government, than to an equitable coalition (T. Bergman et al., 2020).

These three models provide a clear typology in which a wide range of coalition governments can be placed and, additionally, specifies the distinct expectations as to what coalition governance will commonly resemble for each model. These expectations, nevertheless, remain general. Whereas the coalition compromise model emphasises continuous negotiation between government parties, no details are included as to how such incumbency negotiations are managed. In turn, the dominant prime minister model stresses the role of the distribution of power amongst coalition parties, yet does not specify what the determinants of coalition party power might be and whether this distribution remains stable throughout their term in office. Such models thus fail to theorise the precise dynamic nature of coalition governance. These dynamics can be further disaggregated by considering individual coalition party behaviour, as opposed to coalition governments as a collective.

2.3 Game-Theoretical Model of Coalition Bargaining

The formal theory of coalition bargaining as developed by Lupia and Strøm (1995, 2010), considers these more fine-grained coalition dynamics. Introduced in 1995 as a game-theoretical account of coalition termination and expanded in 2010 to cover coalition governance more broadly, this detailed theory of coalition dynamics sets out to explain individual coalition party behaviour. More precisely, their theory presumes that the actions of coalition parties are informed by a careful weigh-off between the utility of maintaining the current cabinet and the utility of possible

outside options. Outside options refer to either non-electoral options, such as the replacement of one or more parties from the coalition with parties represented in parliament at that time, or electoral options, which imply termination by dissolving the parliament and calling for early elections. The utility of coalition membership for a party, is thus a function of the distance of a coalition party's preference from the status quo, indicating the possible incumbency benefits reaped, minus the possible costs incurred by termination (Huber and McCarty, 2001). De Winter and Dumont (2010) find that the variables influencing this equation are variable over time. For example, the state of a coalition party's outside options is determined by those variables which influence a party's likelihood of being included in a subsequent coalition, were the current coalition to fall in that moment. These include, for example, a party's share of parliamentary seats (Grofman and Roozendaal, 1997), whether they are the chief executive party in a coalition and enjoy associated powers (Schleiter and Evans, 2021), their electoral prospects in the polls (Kayser et al., 2022), as well as internal party organisation (Pedersen, 2010). Whilst some determinants are static, others are highly variable. This implies that coalition parties find themselves in a continuous assessment of their government membership.

Having favourable outside options does not automatically result in the departure of a coalition party. Instead, parties are likely to use such a position in the process of obtaining incumbency benefits itself. As described by Lupia and Strøm (2010), the better the outside options, the stronger a party's 'walk-away value'. This value describes the benefits a party would enjoy, were they not to participate in the bargaining. The higher this value, the less a party can gain or lose from the bargaining. And hence their bargaining power is stronger. When applied to the context of coalition bargaining, this suggests that parties who do not necessarily gain that much from incumbency due to favourable outside options, have a stronger bargaining position than parties for who the benefits of incumbency still strongly outweigh those of outside options. The stronger a party's bargaining position, the less it is incentivised to make concessions for the sake of maintaining a coalition government, and thus the more effective this party will be in negotiations.

Returning to the T. Bergman et al. (2021) models of coalition governance, each of the three models reflects the core principles of this game-theoretical model. For example, the ministerial government model describes an unrestrained bargaining environment where individual party preferences prevail over a consensus. Yet it does not take into account asymmetries in bargaining power, as it is unlikely that strong coalition parties would forgo controlling more junior members of the coalition. This is exactly what occurs in a dominant prime minister model, where the chief executive coalition party has such a strong relative bargaining position that it can restrict the effectiveness of the junior parties in office and govern akin to a single party government. Naturally, few junior coalition partners would agree to cooperate on those terms. And thus, the most commonly identified coalition compromise model indicates coalitions where bargaining power is distributed more equitably and institutions allow mutual monitoring. This results in a continuous bargaining process by which parties employ their walk-away values during policy negotiation to coerce coalition partners to make concessions.

Viewing coalition governance through a game-theoretical lens allows for the disaggregation of the bargaining process at its centre. Such bargaining, however, is believed to occur almost exclusively behind closed doors. Andeweg and Timmermans (2010) identify a number of arenas of conflict which shape coalition politics during incumbency. These range from ministerial committees to individual party summits and have in common that they are not widely accessible to the public, and with that to a research audience as well. As a result, these game-theoretical accounts have not been extensively subjected to empirical analysis.

2.4 Empirical Study of Coalition Bargaining

The most commonly studied form of coalition bargaining is formation negotiations, whether that pertains to which configuration will form (e.g. Andeweg and Timmermans, 2010; Riker, 1962), or how ministries, or portfolios get allocated (e.g. Bäck et al., 2011; Greene and Jensen, 2018; Martin and Vanberg, 2020b). The advantage of studying this particular bargaining process is that it tends to occur over

a relatively brief window of time. Moreover, each party's policy preferences, as well as its relative bargaining power, are stable and known, as it will be based exclusively on electoral manifestos and results from the election preceding the formation stage. Finally, the subsequent resulting coalition composition, as well as the distribution of portfolios is very easily observable. Thus, although researchers are unable to observe the precise process of bargaining, they can observe many of the external variables influencing the bargaining environment, as well as the outcome itself.

Research has shown, however, that the more divisive matters are often not included in the formation negotiations, or the resulting coalition agreement (Fortunato, 2021). Instead, the coalition leaves those matters either to deal with later (Greene, 2017), or hope that it will not be of great importance to the public for the duration of the incumbency (Zubek and Klüver, 2015). Moreover, some matters simply cannot be anticipated. Exogenous shocks and unforeseen developments occur during every coalition term and have the potential to alter the status quo (Laver and Shepsle, 1998; Lupia and Strøm, 1995; Saalfeld, 2010). It is therefore impossible for a coalition to negotiate everything a priori during formation. Hence bargaining over policy payoffs is inevitable during a coalition's time in office as well. It is these negotiations during incumbency, however, which are more opaque, leaving little information to uncover its dynamics.

One way such lack of information has been circumvented in current research is to assume that negotiations during incumbency are either restricted by, or an extension of, those during formation. In this manner, static variables from the formation stage can be used to infer the state of incumbency negotiations, such as ideological disagreements in electoral manifestos (Greene, 2017), number of formation attempts (T. Bergman et al., 2021; Warwick, 1992) or the length of a predefined coalition agreement (Klüver et al., 2023; Krauss, 2018). Another approach is to consider the congruence between observable policy outcomes and the coalition agreement (Zubek and Klüver, 2015), or a coalition party's electoral pledges (Schermann and Ennser-Jedenastik, 2014; Thomson et al., 2017). The comparison at the heart of this literature on pledge fulfilment gives an indication of the speed and success of

coalition policy making and can therefore act as an approximation of the state of incumbency bargaining. It does not, however, shed any light on the behaviour of individual parties as they attempt to maximise their share of the coalition pie. One way to open up this black box of coalition governance is to consider the aspects of coalition party behaviour which are observable throughout their incumbency and infer the implications these may have for privately made negotiations.

2.5 Differentiation as an Observable Coalition Behaviour

Although many aspects of coalition governance are not publicly observable, this, naturally, does not pertain to all party behaviour whilst in office. Matthews (2019) makes a distinction between public frontstage coalition behaviour, and opaque backstage accommodations and transactions, when describing the 2010 Conservative – Liberal Democrat coalition in the United Kingdom (UK). Frontstage coalition behaviour refers to the publicly observable 'posturing' by coalition parties, whereas backstage behaviour concerns the negotiations and interaction between parties privately. She stresses how these two aspects of coalition governance are more inextricably linked than initially thought by highlighting how 'the backstage management of the Coalition was subject to a number of frontstage pressures' (Matthews, 2019, p. 160). One such pressure is identified as the desire to claim credit for policy. When describing such public signalling, Matthews concludes that 'frontstage considerations often prevailed, as illustrated by David Cameron's continued willingness to claim credit for policies that owed their existence to the Liberal Democrats' (Matthews, 2019, p. 163). Martin and Vanberg (2020b) find that coalition parties are similarly aware of the extent to which certain payoffs are visible to the negotiation audience, the electorate, when negotiating portfolio allocations. In pursuing a maximal share of portfolios, coalition parties will attribute a different value to salient, and therefore visible, ministries, than to ministries with less public relevance. Both these examples indicate that coalition parties are aware

of the aspects of coalition governance which the general public can observe, and which are opaque, and use this distinction strategically.

More precisely, coalition parties are conscious of the fact that, to enjoy incumbency benefits, it is imperative to maintain the coalition compromise. Yet, simultaneously, the parties joined together in office are mindful that when departing the coalition, each party is accountable to the electorate as a distinct entity. Whilst the former is an incentive to unite with coalition partners, the latter is an incentive to distinguish oneself during incumbency. Boston and Bullock (2010) identify these orthogonal incentives as the unity-differentiation dilemma, as parties seek 'how best to balance the desire for unity or cohesion (and hence effectiveness) with the equally important electoral imperative to maintain party distinctiveness or differentiation' (P.41). In navigating this desire to distinguish oneself from coalition partners, whilst continuing to enjoy incumbency benefits through effective policy making, coalition parties have limited options.

Fortunato (2019b, 2021) finds that a party publicly distinguishing itself in a coalition is possible, yet only in ways that do not violate collective cabinet responsibility. Such joint responsibility refers to the duty of all coalition parties to 'support all government decisions and cloister any discord between member parties or individual ministers'(Fortunato, 2021, p. 93). As it concerns decisions made, collective cabinet responsibility predominantly applies to bills and decisions already passed into law. Yet it is often also extended to parliamentary voting behaviour. Party differentiation pertaining to these areas, by voting against a government bill for example, would place a coalition party in a precarious position in which it would risk expulsion from the cabinet. This leaves only a few avenues through which parties can differentiate whilst in office. Regardless of this, existing research has established differentiation behaviour in party press releases (Sagarzazu and Klüver, 2017), the tabling of legislative amendments (Fortunato, 2019b), and legislative speech (Fortunato, 2021; Martin and Vanberg, 2008). This literature, however, remains small, and as such there is no clear consensus on the precise conditions which drive parties to differentiate, and whether they are equally equipped to do so.

The most commonly found theoretical expectation of coalition differentiation is that it is a campaigning behaviour (Martin and Vanberg, 2008; Sagarzazu and Klüver, 2017). As planned elections draw near, parties joined together in government will experience an increasing incentive to differentiate and thereby re-establish their distinct party labels in time for the elections. This account, therefore, assumes that after a certain temporal threshold has been crossed, all coalition parties will uniformly engage in differentiation as part of their electoral campaign. In turn, the assumption is that consensus of unity prevails at all other points of incumbency. To contrast this, Fortunato (2021) presents a theory of performative differentiation through legislative amendments. From this perspective, coalition parties allow a certain degree of ministerial drift to occur as ministers submit bills more closely aligned to their party's ideals. This deviation is then publicly corrected by the remaining coalition parties through legislative amendments, to reflect the coalition consensus. This legislative performance, carefully orchestrated in advance, allows all coalition parties to claim defending their own party line in the eyes of the electorate, whilst still resulting in a consensus. This behaviour is expected to occur throughout incumbency, displayed by coalition parties attempting to correct poor performance in the polls. Differentiation in this account is therefore not merely reserved for campaigning, but also employed to correct any decreases in public support throughout a party's time in office.

Fortunato's (2019b) analysis of legislative amendments emphasises that as parties grapple with the unity-differentiation dilemma, differentiation can prevail throughout incumbency, and vary between parties. Similarly, Proksch and Slapin (2015, 2021) suggest that depending on the degree of conflict, considerations of what is acceptable differentiation could vary. They state that future work 'could focus on the dynamic nature of policy conflict between coalition parties as this may affect the position that leaders choose to defend' (Slapin and Proksch, 2021, p. 44). This implies that differentiation is a dynamic coalition behaviour in response to either external pressures or internal conflict, which can be observed for the duration of the coalition's time in office.

The first article of this doctoral thesis further supports this notion by capturing monthly coalition party differentiation behaviour in parliamentary speech at the hand of supervised text classification. It has long been established that parliamentary speech is predominantly employed to signal preferences, as opposed to hash out policy disagreements (Bäck et al., 2021; Proksch and Slapin, 2015). Legislators take this opportunity to read into the official record their preferences and contributions made during less visible parts of the legislative process. As put by Laver (2021): 'What in practice happens in the legislative chamber, therefore, is rarely "debate" in any meaningful sense, but more a series of statements and restatements of positions' (p.23). The extent to which the positions expressed by coalition party factions diverge is a clear indicator of differentiation. This makes parliamentary speech a sizeable, and dynamic source of information on the extent to which coalition parties are publicly differentiating, or in turn, choosing to present a united front. By establishing the fine-grained variations in party differentiation in parliamentary speech in a large sample of coalition parties, the measurement presented in Chapter 3 opens up the possibility for further analysis into the exact nature of this behaviour.

The second article presented in Chapter 4 of this thesis further explores the coalition differentiation found by the monthly measure and establishes the positive relationship between the bargaining power ascribed to a coalition party, and the extent to which it differentiates in parliamentary speech. The stronger a party's walk-away value, the more distinct the positions it takes in parliament. The novel theory presented alongside this finding is that differentiation is an inherently deviant behaviour, which only parties with a sufficiently favourable position are able to engage in. More precisely, differentiation in speech, and thus failing to represent the coalition consensus, is a publicly defiant behaviour which comes with a certain degree of accountability. As stressed by Laver (2021): 'reading a position into the official record implies accepting a higher degree of public accountability for the stated position than statements made in more informal channels' (p.24). Publicly taking a certain position, which deviates from the coalition consensus, is a costly behaviour which is unlikely to be employed, unrestrained or without good reason, to jeopardise

coalitional unity. This assumption of differentiation as a deviant behaviour provides a direct link between the frontstage behaviour of differentiation and the private negotiations, and with that, a window into the black box of coalition governance.

2.6 Public Differentiation and Private Coalition Governance

The unity-differentiation dilemma as presented by Boston and Bullock (2010), states that these two options are competing, or mutually exclusive. Parties can either unite to govern or differentiate to win elections. This stems from the tensions in coalition party decision making between policy-seeking and vote-seeking incentives. If this assumption of mutual exclusion holds true, the prevalence of one behaviour indicates the absence of the other. Hence, if one can observe coalition differentiation, one can infer policy making is strained.

As noted previously, differentiation which violates joint cabinet responsibility jeopardises coalition membership, or even the survival of the cabinet as a whole. Displaying differentiation within these bounds, thus differentiation pertaining to decisions yet to be made, may not have the same dire consequences, but is not without costs. The unity-differentiation mutual-exclusion assumption suggest that differentiation is an inherently obstructive behaviour to policy making. The literature on legislative obstruction is almost exclusively concerned with obstruction by legislative minorities, predominantly in the United States (e.g., Algara and Zamadics, 2019; Johnston, 2018). As such, there is no prior work illustrating obstructive behaviour by coalition parties themselves. Nevertheless, the logic from the legislative obstruction literature does translate to the coalitional context. As stated by Patty (2016) 'the key characteristic of obstruction in this framework is only that it is per se inefficient' (p.177). Any behaviour in the legislature which delays or inhibits effective policy making can be deemed obstructive. Differentiation inhibits policy making by itself, since there is an increase in legislative activity by coalition parties, such as submitted amendments and performed speeches. Simultaneously, the emphasis on divisions by coalition parties will not go unnoticed

by the legislative opposition. Whitaker and Martin (2022) find that opposition parties will strategically exploit any observable cracks in coalition unity by increasing scrutiny in that particular policy area. Taken together, the processes set in motion by coalition differentiation are very likely to delay policy making. This policy making delay, incurred by coalition party obstruction, reduces the benefits associated with incumbency by increasing opportunity costs: for as long as the obstruction lasts, the policy cannot be voted on and other pressing matters may not be dealt with as efficiently (Patty, 2016; Strøm, Müller, and Bergman, 2010). This reduction in incumbency benefits also holds true for the differentiating party itself.[2] Yet, Patty (2016) finds that 'even when obstruction is costly to the obstructer in policy terms, significant obstruction can occur in equilibrium because of the signalling value of this delay'(p.177).

In the context of differentiation as coalitional obstruction, signalling value can refer to the electoral benefits associated with differentiation, i.e., the value a party derives from signalling a distinct party label to the electorate. However, it is also worth noting that 'obstruction can be driven solely by rational bargaining motivations' (Patty, 2016, p. 176). Thus, whilst the differentiating party may derive external benefits from the obstructive behaviour, it may not be the direct motivation to engage in this behaviour. Instead, a party may purposefully halt the policy making itself in order to influence private coalition negotiations. In this scenario, the signal sent by a delay is not intended for the electorate per se but directed at the remaining parties in government.

The third article presented in Chapter 5 of this doctoral thesis investigates the role of differentiation in coalition bargaining and establishes that public differentiation adds credibility to potential exit threats. Kayser and Rehmert (2021) for instance, find that parties with strong bargaining power are likely to influence policy outcomes by threatening departure from the coalition. If the remaining parties have less favourable outside options, and therefore a vested interest in maintaining the current cabinet, policy concessions are more likely to

[2]The obstructing coalition party also risks being perceived as an uncooperative coalition partner, which could impede its inclusion in future formation attempts (Fortunato, 2019b; Patty, 2016).

be made. As put by Van Roozendaal (1997): 'the possibility of using credible exit threats can be seen as a mechanism to induce cooperative behaviour between the parties in government' (p.78). Yet, merely having bargaining power is not sufficient to make a threat credible (Lupia and Strøm, 2010). The theory presented in the third article emphasises that public displays of bargaining power, such as differentiation, add credibility to potential exit threats. With credibility, an exit threat becomes an effective bargaining strategy. This notion is further supported by the evidence in the third article that the interaction between bargaining power and differentiation by chief executive parties is associated with an increase in the number of economic reforms passed, yet the sole effect of bargaining is not.

The assumption of mutual exclusion which lies at the heart of the unity-differentiation dilemma, is fully intuitive if one categorises differentiation as an obstructive legislative behaviour. It is this juxtaposition between unity and differentiation which can provide a window into the opaque aspects of coalition governance. In its simplest sense, this implies that from the degree a coalition is differentiated in parliamentary speech one can infer a coalition's policy making effectiveness. Whereas at a more granular level, differentiation as an obstructive coalition party behaviour can also be interpreted as the strategic use of the front or back stage tensions in coalition bargaining itself. Coalition parties have an incentive to allow bargaining behaviour to spill from the closed arenas of conflict into that which is publicly observable in order to obtain policy concessions. This behaviour, in turn, has the potential to further understanding of the secretive bargaining processes of coalition governance.

The political dialects to be found in [...] speeches of under-Secretaries do, of course, vary from party to party, but they are all alike in that one almost never finds in them a fresh, vivid, home-made turn of speech.

— George Orwell (1947)

3

Unpacking Coalition Governance

Presenting a Measure of Coalition Differentiation

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3.1 Introduction

The vast majority of democratic governments worldwide are coalition governments (Martin and Vanberg, 2020a). This implies that the predominance of democratic policy and governance outcomes are generated by multi-party governments. Considering such a critical mass, it is concerning that there is a significant portion

of the cooperative process preceding these outcomes of which we do not know its precise mechanisms. The study of coalition governments has thus far largely circumvented the actual process of governance by multiple parties and instead has predominantly been concerned with membership, formation, and termination (Strøm, Müller, and Bergman, 2010). This lacuna is mainly driven by a restriction in measurement. Where data on formations and terminations are readily available, insights into the black box of coalition cooperation for governance and policy making are harder to come by. This is not wholly surprising considering coalition conflicts are mostly dealt with behind closed doors (Andeweg and Timmermans, 2010). There is, however, one key aspect of coalition governance which is theorised to be consistently publicly observable.

Coalition parties are aware that to enjoy incumbency benefits, it is imperative to maintain the coalition compromise. Yet simultaneously, once the coalition terminates, planned or otherwise, each party is accountable to the electorate as a distinct entity. This, in turn, is an incentive to publicly distinguish oneself during the incumbency. Boston and Bullock (2010) identify these orthogonal incentives, based on the qualitative study of New Zealand's coalitions, as the unity-differentiation dilemma: parties seek 'how best to balance the desire for unity or cohesion (and hence effectiveness) with the equally important electoral imperative to maintain party distinctiveness or differentiation' (p.41). For the entire incumbency of a coalition government, its parties will consistently weigh off the costs and benefits associated with acting on each of these options, unite or differentiate, when informing their behaviour. Since compromise and public displays of unity are necessary conditions for effective coalition governance, the extent to which differentiation occurs can therefore be interpreted as a widely, and publicly, observable indication of coalitional conflict throughout incumbency. As stated by Fortunato (2021), differentiation 'is conflict. It is heated debate in the plenary, pointed questions of ministers in subpoenaed testimony in committee hearings, and bold amendments in legislative review' (p. 27).

Commonly used measurements of coalition conflict and differentiation more often capture correlates, as opposed to the actual differentiating behaviour. Examples of which include ex-ante measures which are thought to indicate the likelihood of conflict occurring during incumbency, such as the number of parties in a coalition (Zubek, 2015), or their ideological differences in electoral manifestos (Carroll and Cox, 2012; Klüver and Bäck, 2019; König et al., 2022; Meyer et al., 2023). A few studies do set out to capture the differentiating behaviour itself, to establish the degree of differentiation and conflict in a coalition directly. Most of these measure behaviour in the parliamentary arena, such as differences between coalition parties in applause (Imre et al., 2022), speech (Fortunato, 2021; Martin and Vanberg, 2008, and tabled amendments (Fortunato, 2019b, 2021). This is unsurprising as legislative processes are one of the few sources of dynamic information of coalition cooperation. None of these existing methods of measurement, however, have generated both a dynamic and largely comparative measure of coalition differentiation. Instead, they tend to restrict their measure to a small sample of countries due to data limitation and the intensive nature of coding, thereby inhibiting comparative analysis.

This chapter presents a novel measure of coalition differentiation, which is easy and consistently applicable across large samples of coalition governments. The supervised machine classification of speeches delivered by members of coalition parties in the parliamentary arena results in differentiation scores for ten Western European democracies. This algorithm is trained to identify the party label of a speech, based on the words used by members of parliament (MPs) and ministers from each respective coalition party. Once trained, it is then applied to predict party labels of speeches it has not yet seen. The resulting performance indicator of this algorithm is interpreted as the extent a coalition as a whole, as well as the parties comprising the government individually, are differentiating in parliamentary speech. More precisely, the extent the classification is successful indicates how well the algorithm is able to distinguish parties based on their word use in parliament. If it does so successfully, parties are differentiating by speaking in a distinct fashion from one another, whereas in instances of poor performance when making these distinctions,

coalition parties are presenting more of a united front. This classification process generates monthly differentiation scores for both coalition parties, and governments as a whole, for ten European countries over the course of 20 years.

This time-varying measure of coalition differentiation is the first dynamic indicator of distinct coalition behaviour between coalition parties and the outward presentation of coalition conflict for a substantive sample of governments. These scores therefore enable the empirical testing of core assumptions at the heart of coalition research, which previously eluded testing. For example, whether ideologically distant or larger coalitions truly are more prone to conflict, or whether and how propensity for conflict affects government duration and output. Below, I will elaborate on the theoretical nature of the unity-differentiation dilemma, the selection of supervised classification as a suitable similarity measure for this purpose, the conceptualisation of the results, and the classification pipeline. In turn, a number of validation tests indicate that the classification pipeline is effectively capturing party-based linguistic differences, and that this measure correlates with the pre-existing static measures of coalition conflict.

3.2 Intra-Coalition Discipline

The challenges of maintaining compromise during coalition governance, due to competing incentives to defend and enact individual party preferences, was initially employed by researchers to classify coalition governments. The concept of intra-coalition discipline, indicating the extent a compromise is honoured during incumbency, informed coalition typologies such as tight versus loose coalitions (Müller and Strøm, 2000), and blended and accommodatory approaches to coalition governance (Seyd, 2002). Both typologies place coalition governments on a spectrum of discipline, where tight or blended governments perfectly honour a prior agreed upon consensus, and loose or accommodatory coalitions allow for party lines to prevail to a certain extent. At party level, a more recent publication by König et al. (2022) considers coalition parties to either be cooperative or competitive, a characteristic which is considered to remain stable throughout their time in

office. All these typologies thus rest on the assumption that the degree to which a coalition is united is static during incumbency, with the level of unity depending on institutional design, mutual agreements to condone dissent under specific conditions, and individual party strategy.

Martin and Vanberg (2008), as well as Boston and Bullock (2010), reinterpret the orthogonal coalition interest as informing a dynamic, party-level decision-making process, instead. Parties joined in coalition government are faced with a unity-differentiation dilemma (Boston and Bullock, 2010). In order to govern effectively and enjoy the associated incumbency benefits, consensus and unity are essential. Yet, to ensure electoral success once the government terminates, it is imperative for parties to be identifiable as distinct entities by the general electorate. The decision to act on either of these mutually exclusive interests is considered to be the result of a careful weigh-off between the costs and benefits of each option. Which option prevails, is therefore not static, or consistent throughout a government's incumbency as presumed by König et al. (2022) and instead, can vary throughout.

Fortunato (2021) emphasises how, throughout incumbency, coalition parties are bound by collective cabinet responsibility. This responsibility 'stipulates that the government present a united front on all policy matters, particularly after the policy has passed the parliament' (Fortunato, 2021, p. 93). As such, parties only have the opportunity to differentiate without violating this responsibility during the legislative review period. In this restrictive space, one can still make a distinction between the extent to which parties in coalitions speak differently, and parties truly acting on distinct interests. Acting on party interest, over coalition compromise, is mostly conceptualised as the prevalence of ministers proposing legislation closer to their own party's interest than the coalition agreement, termed ministerial drift (Martin and Vanberg, 2011). Yet it is also conceptualised as subsequent legislative amendments to move proposals closer to party ideals (Fortunato, 2019b). Spoken differentiation, in turn, is mostly captured in parliamentary speech (Fortunato, 2021; Martin and Vanberg, 2008; Proksch and Slapin, 2015).

Naturally, speaking differently is not associated with the same consequences or impact as acting distinctly. Yet while the prevalence of ministerial drift is considered to be significantly limited by institutional design (Martin and Vanberg, 2011), and frequency of tabling amendment contingent on party resources (Fortunato, 2021), 'floor debates constitute one of the most obvious— and prominent—avenues for coalition parties to publicly justify their position on policies they are about to adopt' (Martin and Vanberg, 2008, p. 503). Thus, although it is less likely to impact outcomes, such as policy, directly, differentiation in speech is a key tool employed by coalition parties to signal their position in public. Moreover, it is deemed to be equally accessible to all parties in a coalition, regardless of size, and therefore a consistently employed method of distinctiveness signalling.

With such a low threshold to differentiate, one might expect coalition parties to display this behaviour at their own leisure to ensure electoral success, even when there is no real coalitional conflict occurring behind closed doors. This, nevertheless, remains unlikely since research has shown observable divisions between coalition parties are strategically exploited by opposition parties in parliament (Whitaker and Martin, 2022). Coalition differentiation in speech, therefore, has the potential to encourage parliamentary scrutiny further and thereby inhibit effective policy making. With such an incentive to present a united front not only in the eyes of the electorate, but also towards the opposition, one can assume that such speech behaviour only occurs in the case of coalitional conflict.

It is noteworthy that the extent a coalition is differentiated or united should not be conflated with being polarised or ideologically homogeneous. Intuitively, sharing ideological preferences will assist in finding and maintaining a coalition compromise (as indicated by Warwick (1992)), yet this does not mean the need to differentiate is absent. On the contrary, Fortunato (2019b) finds that coalition parties who are perceived to be ideologically similar by the electorate, will in fact, have a larger incentive to differentiate, and do so accordingly to maintain a distinct party brand. The ideological distance between coalition parties is therefore related to, but not synonymous with, the extent a coalitional compromise is honoured.

Moreover, the extent a coalition is disciplined in its outward presentation is more likely to vary over time, than stable ideological preferences will.

3.3 Measuring Differentiation

Boston and Bullock (2010) based their conceptualisation of coalition differentiation on a qualitative assessment of coalition governments from New Zealand. Their analysis, therefore, lacked a quantitative interpretation of this concept. Yet since then, the extent a coalition is differentiated, and thus outwardly presenting a degree of conflict, is captured in a multitude of ways. Most of studies, nevertheless, conceptualise the risk of differentiation as opposed to coalition differentiation itself. Such risk is conceptualised as stemming from the complexity of a coalition. This is measured by approximations such as the (effective) number of parties in the coalition (Zubek, 2015), or differences in their electoral manifestos (Carroll and Cox, 2012; Dörrenbächer et al., 2015; Klüver and Bäck, 2019; Klüver and Spoon, 2020; Spoon and Klüver, 2017). These measures all assume that the larger a coalition, or the more distant their ex-ante ideological positioning are from one another, the higher the likelihood is of differentiation from occurring between coalition parties. All of these measures, however, are not only proxies of the behaviour of interest, they are also static. This means they are solely able to capture what they intend at one point in time, often at the start of a coalition government. As a result, these studies are predominantly concerned with variation across governments and countries and fail to unveil exactly what differentiation dynamics are at play during a coalition's time in office.

A handful of measures attempt to gauge the extent to which coalition parties behave differently during incumbency. Fortunato (2019b), for instance, considers legislative amendments made by coalition parties to government bills to be a form of differentiation. To capture this process, he codes all amendments tabled by coalition parties to alter legislative proposals submitted by their coalition partners. Yet this measure solely covers three European countries for a span of 20 years. Similarly, Imre et al. (2022) present a measure of coalition mood. This measure

infers the extent to which a coalition is cooperative or competitive, not through amendments, but through the frequency with which coalition parties applaud each other's speeches in parliament. Although very innovative, such information is rarely consistently codified in debate transcripts and as such these authors are restricted to solely German and Austrian coalitions. Plescia and Kritzinger (2022), in turn, generate a comparative measure of coalition conflict based on reporting on the state of coalition governments in both national and international media. This metric is thus based on a secondary interpretation of the behaviour coalition parties choose to publicly display, which leaves room for subjective interpretation. Moreover, although scores are generated for a sample of 25 countries, due to limited data they only do so for three points in time.

Measuring coalition parties behaving differently across cases and time thus remains somewhat restricted, as metrics do not often span across a diverse sample. This is either due to the time-intensive nature of coding, such as with amendments, or the lack of consistent data. One widely available and dynamic source of the exact behaviour of coalition parties, is text data, either in the form of parliamentary speech or press releases. Employing text data to capture differentiation rests on the assumption that all coalition parties will have an opportunity to speak, and therefore an opportunity to differentiate. Thus, the words parties choose to present can be a very informative source of variation when capturing differentiation. Moreover, with the rise in computational text analysis, large corpora of text data can be managed with relative ease.

3.3.1 Differentiation in Text

One of the earliest examples of measuring coalition differentiation based on text is from Martin and Vanberg (2008). These authors code the length of legislative speeches from German and Dutch coalition governments, as an indication of differentiation: the longer one speaks, the more opportunity for differentiation. This naturally is a strong assumption to make, and as such, other text-based measures of differentiation consider the contents of the text instead. Sagarzazu

and Klüver (2017), for instance, conceptualise coalition differentiation as occurring through variations in policy attention. Coalition parties distinguish themselves by addressing distinct topics from their coalition partners. In measuring this, they use a Bayesian hierarchical topic model, developed by Grimmer (2010), to classify German coalition party press releases into policy areas, and then interpret differences in policy attention devoted to each of these areas as a strategic coalition differentiation behaviour. Another example comes from Fortunato (2021), who uses Slapin and Proksch' (2008) Wordfish model to generate daily ideological positioning scores from parliamentary speech for the parties of the 2010-2015 United Kingdom (UK) coalition. The distance between these generated scores is then interpreted as the degree of differentiation.

Both topic modelling and the Wordfish model are forms of unsupervised machine classification. In a broad sense, this means these methods are trained to recognise patterns, or groupings, in data without being given prior instructions about the nature of these groupings. Wordfish for instance, considers the composition and frequency of word use by a specific actor to be 'a realization of a Poisson process driven by that actor's position in a unidimensional word space' (Fortunato, 2021, p. 146). By locating and interpreting these positions as ideological, one can make inferences about how these are grouped in this space, and what the distance between these clusters indicates. The one key challenge with unsupervised classification is best summarised by Goet (2019), when he states that: 'the scores that these models produce, identify which speakers tend to use similar words to one another, whether overall or within debates. These estimates may or may not prove to have anything to do with the party, or indeed to have any stable structure over different debates or sessions' (p.7). This implies that the clusters found by an unsupervised classification algorithm do not necessarily correspond with what the researcher sets out to capture. Such possible inconsistencies in results across applications would require careful, case-by-case post-hoc validation to assess the nature of the clusters. This thus implies that the application of unsupervised classification to measure differentiation across time and countries, could result in wildly inconsistent, or at

least incomparable, results, and would be subject to time-intensive validation. It is, therefore, unsurprising that both applications introduced here are restricted to a single country and/or government.

Thus, although these computational methods are able to process vast quantities of text data with relative ease, the thorough post-hoc validation to ensure it is, in fact, differentiation between parties, as opposed to some other dimension of difference, would require significant time investment. The above indicates that existing measures of differentiation fall short in their ability to classify variation across time and cases. As such, a measure which dynamically captures differentiation and is generated for a sizable sample of coalition governments, still remains absent. The challenges preventing such robust measurement can be overcome by using supervised classification instead.

3.4 Supervised Classifier Performance as Differentiation

The application of supervised classification algorithms to predict the party label of a parliamentary speech is an increasingly popular method to measure latent variables (Goet, 2019; Peterson and Spirling, 2018). In this method, a supervised learning classifier is trained to assign speeches to a political party on the basis of the words used in the speech. The trained classifier is then applied to a new set of speeches to predict their party label. The resulting performance of this classification exercise can be considered an indication of distinctiveness: the better a classifier is able to recognise party affiliation of a speech, the more distinct one party's speech behaviour is from the other parties in the sample. Yet, the worse it performs, the more alike speeches are, and thus the more similar parties speak.

This method, therefore, overcomes the aforementioned challenge to the reliability of results, by imposing the dimension of difference, that being the party label. As a result, 'the scores from the supervised models identify which speakers tend to use similar words to speakers from one party versus speakers from the other party. These estimates are guaranteed to be driven by the "party factor", regardless of

the number of topics that are addressed, or other sources of variation in word use' (Goet, 2019, p. 7). Thus, the differences supervised classification picks up on, will always be differences based on party. Such a consistent result, therefore, allows for relatively simple interpretation of results across time and cases.

Yet, the previous application of this method has been to measure ideological polarisation, in the US congress (Yu et al., 2008), UK parliament (Goet, 2019; Peterson and Spirling, 2018), and the European Parliament (Høyland et al., 2014). The aforementioned already established that differentiation can possibly be influenced by the polarisation of a coalition, but it is not synonymous. Instead, for the purpose of this chapter, I merge this literature on ideological polarisation in legislatures with theories on coalition governance, by applying a classification algorithm to a subset of solely coalition party speeches, and, interpret the performance metric of the classifier not as ideological polarisation, but as differentiation. This marks a distinct move away from the original conceptualisation of supervised classification accuracy as a measure.

This shift is intuitive when considering the coalitional context. This method captures fine-grained differences in word use between the speeches of different parties. The interpretation of these differences as being informed by ideology, relies on the assumption that all speakers in parliament are transparent, honest, and consistent about their ideological positions in their parliamentary addresses. Yet, the aforementioned theories on coalition differentiation stress how members of coalition parties are not always at liberty to do so, and instead are required, or choose, to publicly defend a coalition consensus instead. From this perspective, one can consider differentiation between coalition parties as the extent distinct party preferences actually shine through. When a supervised classifier is solely fed speeches by government parties, its resulting performance is, therefore, more closely related to a strategic decision made to emphasise or understate differences, than of an overall degree of ideological polarisation.

3.5 Conceptualisation

The differences between parties, which supervised classification algorithms identify, are those in word use. These can be driven by a number of different factors. One example of which is addressing different topics, as indicated by Sagarzazu and Klüver (2017). In coalition parliamentary speech, this is most likely to be driven either by the extent of participation in specific debates, or by speakers addressing issues in a speech that go beyond the topic of debate. Variation can also be driven by speakers addressing the same topic differently. Goet (2019), for instance, gives the example of US Republican Members of Congress referring to "death taxes" and "illegal aliens", while their Democrat counterparts will debate these same topics using terms such as "estate taxes" and "undocumented workers". It is unlikely that coalition parties will speak on completely different topics as a form of consensual division of labour, as previous research has shown. Parties specialise in each other's portfolios to minimise the risk of ministerial drift (Carroll and Cox, 2012; Martin and Vanberg, 2011). A final example of meaningful variation in word use would be parties explicitly choosing to emphasise their coalition membership over party membership, and vice versa. This measure does not distinguish which source of variation is driving the results, and instead considers all of the above as meaningful and contributing to the extent of overall coalition differentiation.

A key assumption made of conceptualising coalition differentiation in this way, is that parties behave as unitary actors during the plenary debate. Yet, the degree of party discipline, as well as institutions determining access to the plenary floor, can vary significantly between systems and governments. It should be noted that the political systems which generate coalitions, on average are characterised by strong party discipline (Müller and Strøm, 2000). Moreover, access to the floor is mediated by party elites. Slapin and Proksch (2021) presume that party elites 'still have a choice over which backbenchers should engage in monitoring through debate and could employ loyalist backbenchers for the task' (p.44). This is also reflected in the findings of Bäck et al. (2019) who find that speechmaking is restricted to fewer, more high-ranked legislators as incumbency draws to a close and communication of



Figure 3.1: Conceptualisation of Classifier Performance as Coalition Differentiation.

a consistent party label becomes more important. All of which suggest that the extent a coalition party differentiates in parliamentary speech, is a strategic decision made by the party as a whole. Nevertheless, legislative discipline is included as a scope condition in the sample selection, and the validity of this unitary actor assumption is assessed in Section 3.8.3 and Appendix A.4.

The differentiation scores are generated for both a coalition as a whole, as well as its member parties individually, for every month of incumbency.[1] How to interpret these scores is visualised in Figure 3.1. When a coalition receives a high score, the coalition as a whole can be considered differentiated, with one or more parties choosing not to present a united front in parliament. If the score is low, in turn, the members of all coalition parties are speaking very similarly, and the coalition can therefore be considered disciplined in its outward presentation. Exactly which parties are driving these scores can subsequently be identified at the hand of the party level scores. At party level the scores indicate whether a party is distinguishable, or if it frequently confused for another party. The score thus illustrates the extent a party has assimilated or united with one or more of its coalition partners, or whether it is publicly defending a unique party identity instead.

Moreover, what constitutes a low, or a high score, will always be relative to context. The overall performance of the classifier, and thus the size of the scores, will be influenced by linguistic characteristics such as vocabulary size, but also by the distinct parliamentary rules and the culture of a country's parliament. These will be relatively stable within cases but vary across countries. For example, frequently addressing fellow politicians by their full name is a common parliamentary practice

[1] Overall classification performance score is the average of performance scores from all separate classes.

in the Czech Republic. As names will only be associated with a single party, this is a very easy distinguishable feature for a classifier to identify. As such, the average scores of the Czech Republic are higher than those of the other countries in the sample. This is not an indication that Czech coalitions are on average more differentiated. Instead, the variation in such mentioning of names itself will be meaningful to the state of their governments. As such this measure can only account for within-case variation, as cross-country variation is not necessarily meaningful.

3.6 Method

3.6.1 Data

The measure is generated for a sample of ten countries: Austria, Belgium, Czech Republic, Denmark, France, Germany, Ireland, Netherlands, Norway, and Sweden. The countries in this sample are not only characterised by consistent coalition governance, but also have a practice of parliamentary party discipline, which is a scope condition of this measure. The dataset is based on all speeches by members of the coalition parties in parliament, and thus includes speeches by both legislators and members of the executive.[2] The time period for each country differs slightly, depending on data availability. Nevertheless, all range between the past 20 to 30 years. In total, the data covers 69 coalition governments and amounts to 1,722 monthly coalition scores and 4,328 monthly party scores. A full overview of the sample can be found in Appendix A.1. Metadata on coalition membership and duration are taken from the Party Government in Europe Database (PAGED) (T. Bergman et al., 2021).

3.6.2 Cleaning and Vectorising

The speech data is grouped per cabinet and consequently the classification pipeline below is run for each cabinet separately. For each government speech dataset, or corpus, I first remove speeches by the speaker of the house, those of the opposition, and any remaining speeches of less than 40 words. In tokenising

[2]Section 3.8.3 assesses the effect of conflating these different types of speakers.

the remaining speeches, I take a bag-of-words approach, meaning all words are considered in isolation, regardless of context. The numbers are removed, but none of the stop words such as, or frequently used filler words, are removed, nor are words stemmed or lemmatised. For all words capital letters are lowered, and accents and punctuation removed.

A major challenge with this method is that the performance of the classifier is contingent on the size of the overall vocabulary of unique words in the data. More precisely, a cabinet with more speech data, and therefore more unique words, will likely generate higher performance scores. This challenge has mostly been conceptualised as arising from the natural evolution or growth of a language's lexicon over time (Gentzkow et al., 2019; Peterson and Spirling, 2018). As such, one would expect an increasing performance score as time progresses. Yet in the same vein, cabinets of different durations will have different vocabulary sizes, making comparisons across cabinets challenging. Similar to Peterson and Spirling (2018), I account for this challenge to comparison over time, by fixing the vocabulary of all unique words found in the full time period under analysis, per country. In doing so, I exclude terms that appear in fewer than 0.005% of the speeches in the sample to prevent unnecessary degrees of sparsity. As a result, every time the classifier is run for each country's government term, the same vocabulary, and therefore same number of columns, is employed to generate the matrices from the speeches. Based on this vocabulary a term frequency-inverse document frequency (TF-IDF) vectoriser is used to transform the speeches of every coalition government into sparse matrices.[3] It should be noted that this obstacle to comparison due to vocabulary size also persists across countries, in addition to other structural differences that may influence the performance of classification per country, as mentioned previously. As such, including a country fixed effect is advised when employing this measure in a model including more than one country.

[3]Other forms of vectorisation, including document embeddings are considered in Appendix A.3.

3.6.3 Classification

I run three different classifiers for the classification itself, the details of which can be found in Appendix A.2. All three classifiers are selected as they perform well in both binary and multi-class classification and are able to manage sparse matrices as generated by text data specifically. By averaging the performance of three distinct classifiers, I can assess model dependency and the robustness of the final results. More precisely, since the metric of interests concerns errors, or misclassification, comparing result across classifiers with different methods of classification allows one to ascertain whether all three are capturing similar variation, and thus whether this variation is a consistent error. The results in Appendix A.3, indeed, corroborate that there is no specific model dependency, as the results of all three classifiers convergence, which indicates that they capture the same latent variable. These classifications are run using stratified ten-fold cross-validation. This implies that for each cabinet the data is randomly split into ten stratified samples, thus including speeches by all parties in the coalition.[4] The classifier is then trained and tested ten times, each time training the data of nine of the sections and applying the trained classifier to the remaining section to assess performance.

As it stands, the data is rarely balanced. This implies that the number of speeches per party will differ. To ensure the classifier is trained on balanced data, meaning it is fed roughly equal amounts of information per party, I apply Synthetic Minority Oversampling Technique (SMOTE) to each of the fold's training sets. This oversampling technique duplicates observations in the minority class, or classes, to match the number of observations in the majority class. By replicating observations based on the k-nearest neighbours of observations in the minority class, the class is expanded without adding new information to the model. As a result, all parties in each cabinet will have the same number of speeches fed to the classifier. For each speech this classification pipeline will then generate predicted probabilities of the speech belonging to each of the classes, or coalition

[4]Changing the seed of the stratified k-fold cross-validation does not lead to significantly different results.

parties. These probabilities are averaged across the ten folds, and across the three classifiers. Subsequently, F1 performance scores are generated by aggregating the probabilities per month for the full coalition (cabinet-level scores) as well as the parties comprising the coalition (party-level scores).

As previously mentioned, existing applications of this method have almost exclusively been applied to two-party systems, and thus employ a binary classifier. These applications, therefore, did not compare results across classifications with different numbers of classes. Yet the number of parties, and thus the number of classes in the classification, will affect the baseline F1 score, or the level of performance at which a classifier is as good as random. In a binary classification this is at 50%, whereas in a four-class classification this is 25%. Comparison between coalitions of different sizes is impossible without correcting for this. I do so by only considering the surplus F1 score of each month as my final measure of distinctiveness signalling. This is the rate superseding the baseline F1 of each month. The formula for this measure is:

$$F1\ Surplus = \frac{TP}{(TP + \frac{1}{2}(FP + FN))} - \frac{1}{N} \tag{3.1}$$

where TP are all true positive, TN all true negatives, FP all false positives, FN all false negatives, and N is the number of classes or parties in that particular classification. Using the F1 surplus thus indicates how the classifiers pipeline is performing beyond randomness and regularises the results across cabinets of different sizes. Finally, since some scores are quite noisy for months with very few speeches (such as summer and winter recess), I drop the scores/months in the bottom 5% of speech frequency, both for parties and coalitions as a whole. I employ a relative cut-off point, as each country will differ in the number of speeches its parliamentary speech rules will allow for on average.

3.7 Results

For the ten countries in my sample, the coalition differentiation scores for the full cabinets are displayed in Figure 3.2. These scores cover 69 coalition cabinets and 1,722 monthly cabinet scores. This method, however, does not only generate scores for cabinets as a whole, but also for each party comprising the coalition government, resulting in 4,328 monthly party scores. By disaggregating these cabinet level scores into the differentiating behaviour of its comprising parties, one can observe the precise intra-coalition dynamics which result in the overall differentiation score. Something which previous static measures of coalition conflict have thus far been unable to do. Figure 3.3 plots all scores for a subsection of cabinet pairs from my sample. These pairs are selected as they are successive governments, comprising the exact same parties. In this subset, therefore, the number of parties, as well as the ideological distance between the parties in office, is kept approximately constant. As mentioned previously, static cabinet characteristics such as the size and ideological distance, are popular measures indicating the state of a coalition government. Nevertheless, when these remain relatively stable for successive governments, and therefore existing measures indicate little to no change in coalition dynamic, this novel measure captures very distinct patterns of differentiation behaviour from one government to the next. This shows differentiation is an inherently dynamic behaviour across cabinets, but also within cabinets. Such fine-grained variation is not even closely captured by pre-existing static variables.

3.8 Validation

3.8.1 Feature Importance

In the bag-of-words approach employed to generate these differentiation scores, each word, or feature, is ascribed a weight or importance in the classification process every time such a pipeline is run.[5] This means that, retrospectively, one can assess

[5]This concerns the averaged weights from the SGD and Logistic Regression classifier, as Naïve Bayes does not generate weights in this manner.

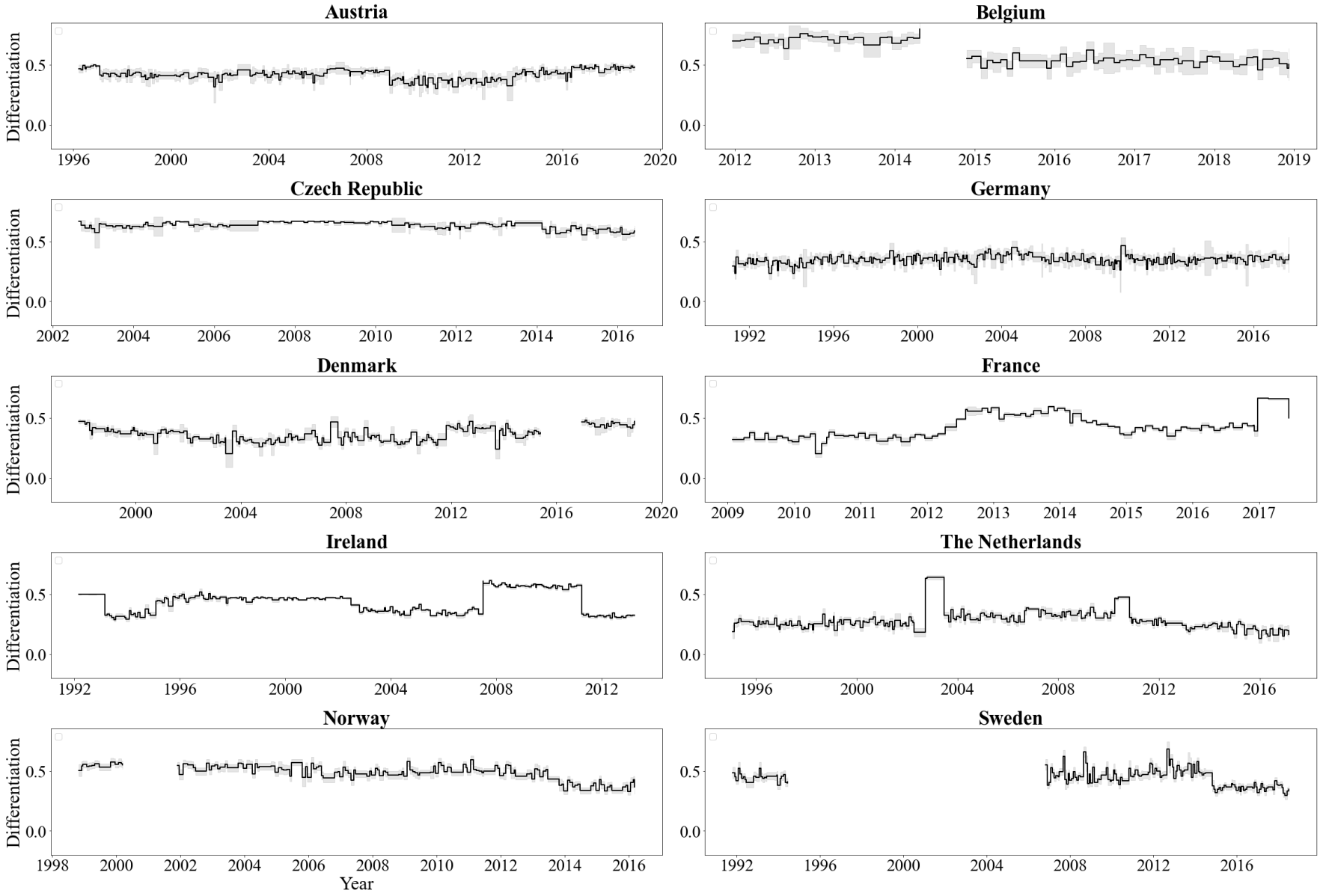


Figure 3.2: Coalition Differentiation for Ten European Democracies.

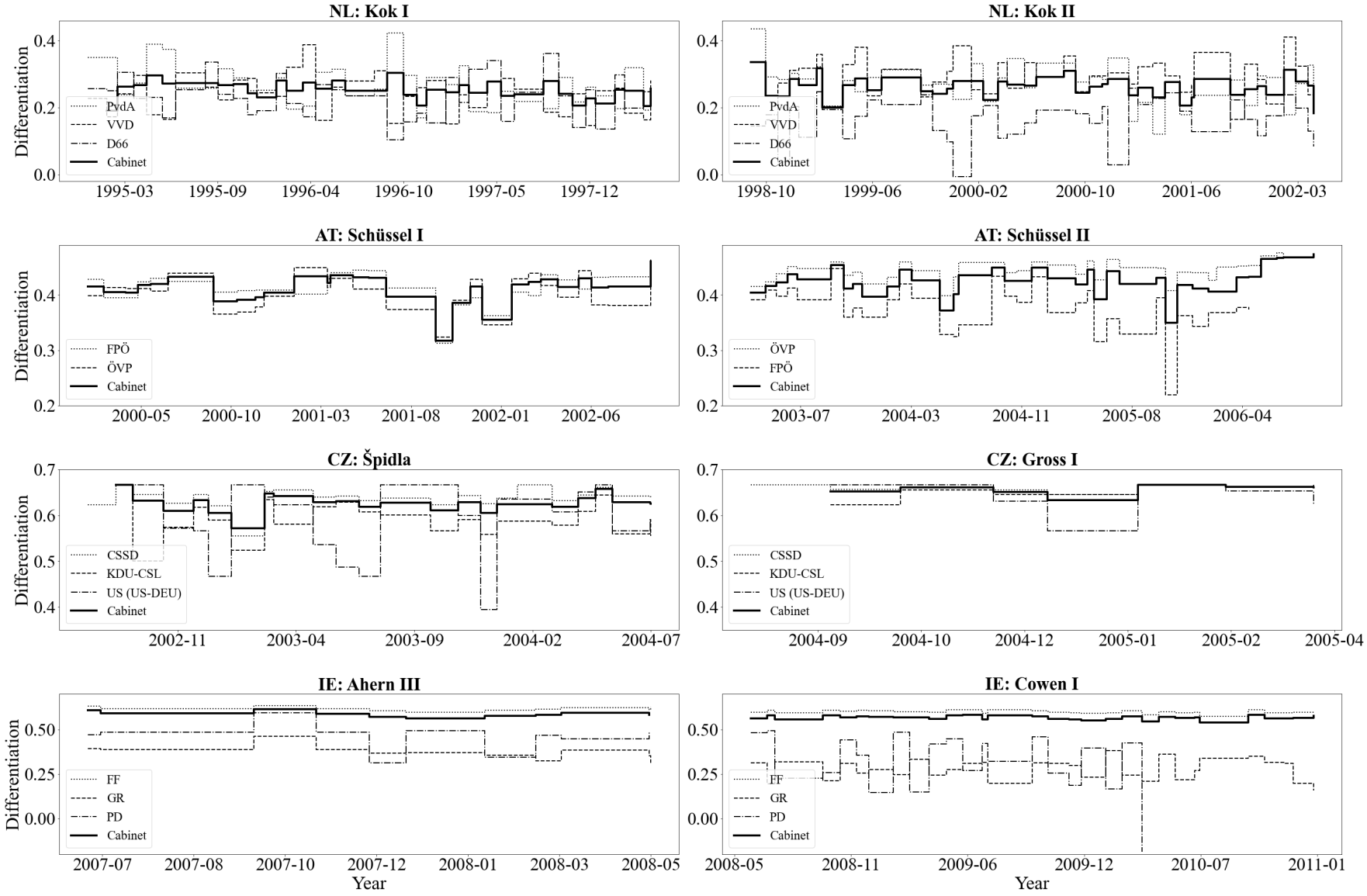


Figure 3.3: Party Differentiation for Eight Cabinets From the Sample.

which words in particular were driving classification for each cabinet, and whether this is consistent with the theoretical expectations derived from the theory on coalition differentiation. In a two-party coalition, the resulting weights indicate the importance of a word in determining the dominant class.[6] As such the high-scoring words are associated with this dominant class, and the low-scoring words with the remaining class. For coalitions of more than two parties interpreting these weights per class is more challenging. This is the case as multiclass classification is merely a combination of binary classifications, of which the result and weights are averaged across combinations of classes. Therefore, the final weights cannot be interpreted as described for binary classification. As a result, assessing the importance of these features for validation can only be done for two-party cabinets. Figure 3.4 plots the top 20 words per class, for eight two-party coalitions from the sample.

From this figure one can deduce that the most important words per class tend to be words included in the party name (radikale, venstre, sozialdemokraten), or the party initialism (CDU, ÖVP, VVD). Such explicitly stating of the party name is also associated with differentiation: the more a party's name is stressed the more differentiated they are publicly. In contrast, mentioning the coalition, as German Green party does frequently in Schröder I, can be an indication of publicly uniting. Moreover, certain policy- specific words relevant to particular parties also score highly. For example. menneskerettigheder (human rights) for the Danish radical left party (RV), arbeitnehmer (employee) for the Austrian and German Social Democratic party (SPÖ & SPD), and financiën (finance) for the Dutch liberal party (VVD). These results combined strongly suggest that the classification pipeline is picking up on party differences correctly and the classification is not driven by random linguistic patterns.

3.8.2 Convergent Validity

As mentioned previously, most of existing measures of the state of a coalition government are static, meaning they only have a single value per cabinet. Naturally,

[6]The dominant class is the first party when all parties are ranked alphabetically.

Denmark: Nyrup Rasmussen III (1997-1998)

Tokens RV	Tokens S
radikale	socialdemokratiet
radikal	socialdemokratiets
redegørelsen	således
folkeafstemning	faktisk
undervejs	forbindelse
nato	hensyn
menneskerettigheder	mennesker
ordførere	såmænd
hans	bedre
holger	kun
venstre	måned
søvndal	regeringen
forbehold	hårdt
konventioner	konkrete
pågældende	konservatives
nemt	oplysninger
søger	kriminalitet
asyl	dag
derfor	glad
vej	forestiller

Denmark: Fogh Rasmussen I (2001-2005)

Tokens KF	Tokens V
konservative	venstre
konservativ	venstres
folkeparti	nemlig
radikale	bare
mener	øvrigt
justitsministeriet	understrege
men	ønske
tilkendegivet	virkeligheden
anders	kigger
også	snakker
per	tidligere
nærmere	spørge
sørge	kigge
godt	absolut
christensen	gentage
beslutningsforslaget	skattestoppet
enig	vel
begået	glimrende
fængsel	ordførertale
radio	sundhedsvæsen

the Netherlands: Rutte I (2010-2012)

Tokens CDA	Tokens VVD
cda	vvd
punt	kabinet
dieren	omtzigt
kortom	dus
scholen	financiën
betrekking	sterk
wijze	volledig
nadrukkelijk	vorig
punten	partijen
men	defensie
datgene	echt
orde	je
derhalve	denk
geachte	allemaal
perspectief	handhaven
name	pechtold
school	geval
water	proberen
ruimte	uwv
inzet	partij

the Netherlands: Rutte II (2012-2017)

Tokens PvdA	Tokens VVD
pvda	vvd
arbeid	heer
jongeren	daadwerkelijk
bank	dingen
studenten	pechtold
samen	bepaalde
regering	aangegeven
zeer	politie
graag	verzekeraars
gevraagd	scholen
overigens	uiteindelijk
aow	ondernemers
kinderen	ministerie
middelen	leerlingen
lijkt	vos
wet	volgens
amvb	helder
soms	bezig
gemeenten	zaken
partij	iedere

Germany: Kohl VI (1994-1998)

Tokens CDU-CSU	Tokens FDP
verehrten	fdp
cdu	rexrodt
csu	koalition
dies	günter
bundeskanzler	liberalen
norbert	kinkel
peter	hier
deshalb	heinrich
parl	kolb
bereits	liberale
wahr	auswärtigen
merkel	walter
miteinander	türkei
bayern	otto
vergangenen	muß
letztlich	bereit
michael	gegenwärtig
betriebe	botschaft
schily	amt
rüttgers	westerwelle

Germany: Schröder I (1998-2002)

Tokens GR	Tokens SPD
grünen	verehrten
gerade	spd
finde	übrigen
fischer	dank
grüne	arbeitnehmer
komme	unsere
tatsächlich	sozialdemokraten
auswärtigen	ordnung
letzten	will
hier	herzlichen
genehmigungsverfahren	deutlich
glaube	verfügung
wirklich	ausdrücklich
debatte	zahl
außenminister	natürlich
gesellschaft	bitte
regierung	darf
danke	entscheidungen
grün	eigentlich
koalition	rund

Austria: Klima (1997-1999)

Tokens SPÖ	Tokens ÖVP
sozialdemokraten	volkspartei
geschätzte	övp
daher	zweifellos
schon	selbstverständlich
danke	bürokratie
geehrte	weise
fraktion	verehrten
deutlichkeit	wabl
betrifft	minister
sehr	wir
bißchen	frau
beschäftigten	etwa
wirklichkeit	zweitens
reihe	bauern
sozialdemokratische	genommen
arbeitnehmer	gott
lkw	schieder
ressort	familien
jene	weiter
bedarf	ministerin

Austria: Schüssel I (2000-2002)

Tokens FPÖ	Tokens ÖVP
freiheitlichen	meine
geehrte	geschätzte
freiheitliche	volkspartei
einmal	övp
kollegin	möchte
ihnen	wir
grünen	schüssel
freiheitlicher	teil
kollege	strasser
million	sanktionen
rednerpult	bundesministerin
hinterlassen	ich
finanzpolitik	immerhin
gegen	schulden
projekt	ländlichen
fraktion	verehrten
versichern	unseren
regierungsparteien	molterer
ihre	kolleginnen
wirklich	betriebe

Figure 3.4: Tokens Predicting Class from Eight Two-Party Cabinets.

this provides limited variation to compare the differentiation scores to. Nevertheless, this section elaborates on the significant correlations of many pre-existing measures with coalition differentiation scores. More precisely, Table 3.1 includes six variables from the Party Government in Europe Database (T. Bergman et al., 2021), all of which are considered to be indicators of the overall state of a coalition government.

The relative cabinet duration is the proportion of the intended incumbency period, which the coalition actually completes. The larger this number is, the longer the coalition is in office. In turn, the smaller this number is, the shorter a government is in office, thereby indicating early termination. One would expect early termination to coincide with conflict and as such, differentiation. And indeed, the negative coefficient confirms differentiation occurs more in governments who do not complete their term in office. According to the following correlation coefficient, surplus majority cabinets differentiate more. This is consistent with expectations, as these cabinets include at least one additional party than is strictly necessary for a simple majority, making cooperation more complex and the likelihood for conflict greater. The next coefficient in Figure 5, indicates that as a coalition agreement is publicly available differentiation goes down. This is consistent with previous research which finds that a public coalition agreement holds governments accountable during their time in office (Klüver et al., 2023; Krauss, 2018). Moreover, the following coefficient, although insignificant, suggests that the larger a coalition agreement and hence the more policy or detail is taken into account and codified at the coalition formation stage, leaves less opportunity for public disagreement between these parties during their incumbency.

Finally, the Party Government in Europe Database includes two separate variables indicating whether a coalition cabinet was characterised by conflict, either based on appointments (personnel) or based on policy. For both these types of conflict, the correlation coefficient indicates that, as expected, these cabinets have higher differentiation scores.

Table 3.1: Correlation Coefficients of Differentiation Scores and Metadata.

Variable	Correlation	P-Value
Relative Cabinet Duration	-0.242	0.000
Surplus Majority Cabinet	0.136	0.000
Public Coalition Agreement	-0.156	0.000
Size of Coalition Agreement	-0.047	0.062
Coalition Conflict Personnel	0.188	0.000
Coalition Conflict Policy	0.082	0.001

Additional measures of the state of a coalition government, include the size of a coalition, as well as the ideological distance between the parties in government (Klüver and Bäck, 2019; König et al., 2022; Meyer et al., 2023; Zubek, 2015). As the number of parties increases, this is thought to increase the complexity of governance and hence the propensity for conflict. Similarly, the ideological distance between the coalition parties is thought to indicate the ease or difficulty with which a compromise can be made. Figure 3.5 plots both the number of parties, as well as the Comparative Manifesto Project (CMP) RiLe scores distances between the most left- and the most right-wing party in the coalition, in addition to the differentiation scores.

The number of parties does correlate with the differentiation scores significantly and positively (0.566, p-value = 0.000), even after the number of parties correction is applied. This shows that the size of a coalition does indeed increase the extent to which parties differentiate. The RiLe score differences also correlate significantly with the differentiation scores with a coefficient of 0.305 (p-value = 0.000). As mentioned earlier, differentiation does not equate to the polarisation of a cabinet, yet this finding does confirm that the two variables are related: the more ideologically complex a coalition, the higher the propensity for conflict and therefore differentiation.

Finally, one of the few true dynamic measures of coalition conflict, is the mood of the coalition as defined by Imre et al. (2022). This monthly score based on applause is available for Austria and Germany as plotted in Figure 3.6. The associated correlation coefficient for this subsample is -0.474, with a p-value of 0.000. This indicates that as the coalition mood improves, this is associated with

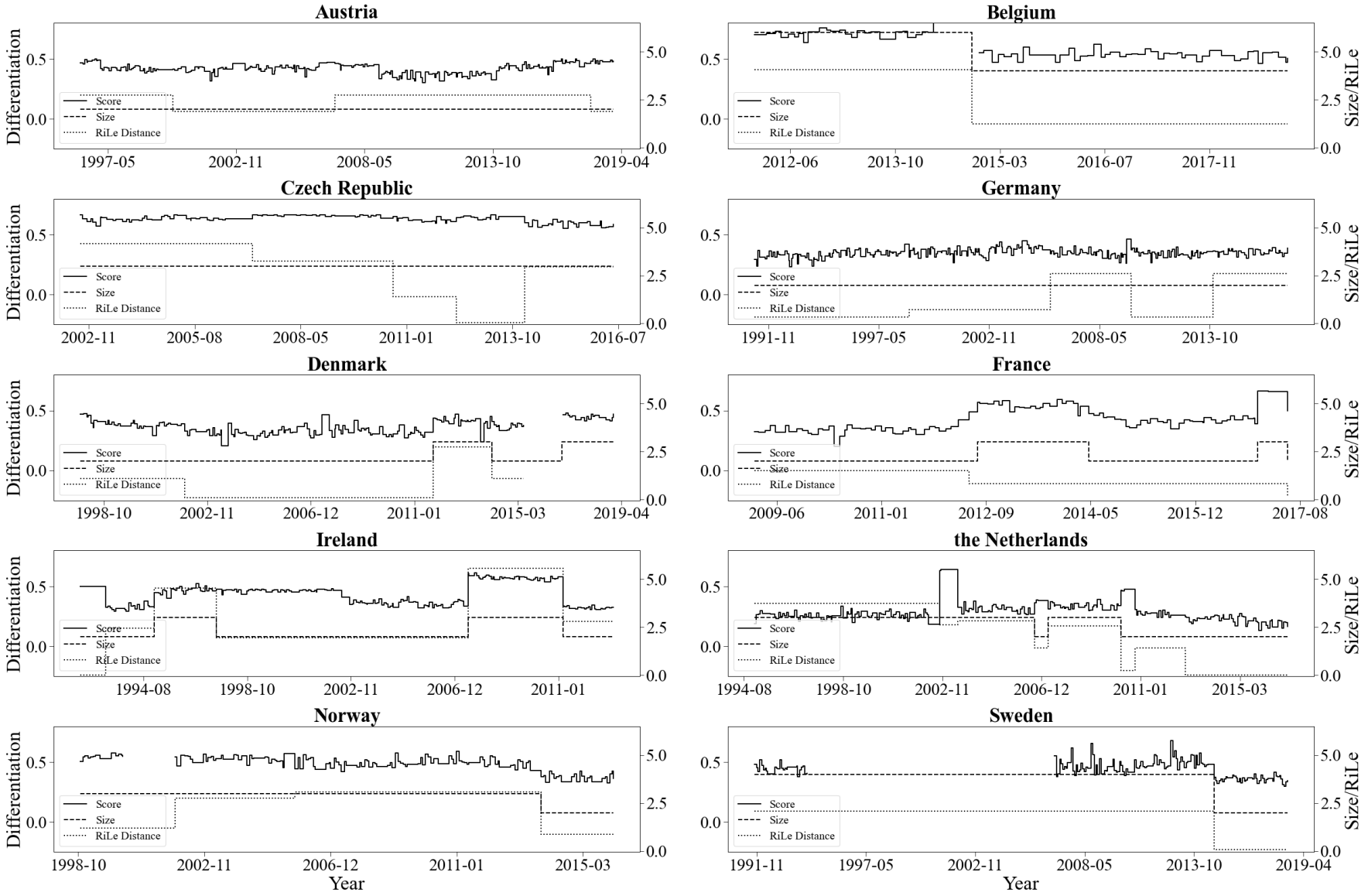


Figure 3.5: Convergence of Differentiation with Number of Parties and RiLe Score Differences.

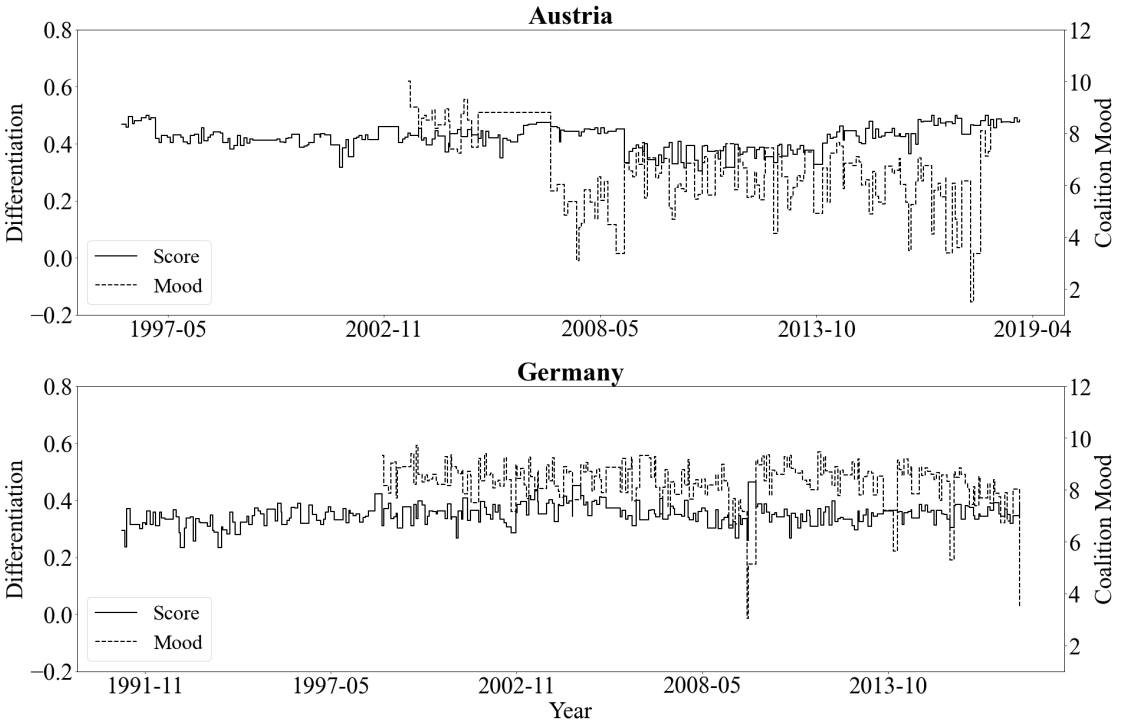


Figure 3.6: Convergence of Differentiation with Coalition Mood.

a decrease in the overall level of coalition differentiation. Again, this is consistent with expectations, as a favourable coalition mood can be equated to the absence of conflict, implying a decreased propensity for differentiation.

3.8.3 Party Unity and Coalition Differentiation

At the heart of the interpretation of this measure as coalition differentiation lies the assumption that it is a centralised party behaviour, and thus that parties speak homogeneously in parliament. As such, an essential selection criterion of the countries included in this sample, is that their parliamentary systems are characterised by a party discipline. Nevertheless, to assess whether this assumption holds true, I investigate whether differentiation behaviour could be driven by internal party divisions instead.

As mentioned previously, this measure conflates speeches by both MPs and cabinet members of a coalition party. One might expect that MPs have less incentive to unite as a coalition than cabinet members do, simply because MPs are not directly involved in governance and, as such, are not subject to the same incentive to unite

as party cabinet members are. In such instances, changes in differentiation can be driven by differences between party MPs and party cabinet members instead.

Appendix A.4, however, shows that for countries with data available on speaker roles, cabinet members have a higher differentiation score, than MPs. Further investigation of this pattern shows that this is mainly due to the fact that cabinet members speak much more frequently than most MPs do. Amongst the most frequently speaking MPs, which also enjoy high differentiation scores, one can consistently identify the parliamentary party faction leader.

The most frequent speakers in parliament are therefore predominantly members of the party elite. This reflects the findings of Slapin and Proksch (2021) and Bäck et al. (2011), who find that frequency of access to the parliamentary floor is mediated by these elites. It is these frequent speakers who contribute the most data to the classification algorithm's training set, and therefore determine what the algorithm considers a party's unique language use. Consequently, this not only dispels concerns of divisions between parliamentary and cabinet officials of a party, it also illustrates that on the rare occasion a deviant MP gains access to the floor and speaks at odds with the rest of their party, this will introduce only minimal noise in the classification pipeline and therefore will not strongly affect the final scores.

In the rare occasion where frequent speakers of a party become divided, Appendix A.4 shows that the resulting scores do indicate such change, albeit a more moderate change than if a party assimilated or differentiated in full. In such instances, the interpretation of the scores ought to be adjusted, as it is not the result of a central party strategy. Division amongst frequent speakers, nevertheless, is rare, and can only be identified in the current sample in coalition governments which include a populist party with no governing experience, such as Balkenende I, and Schüssel I.

3.9 Conclusion

Coalition governance is characterised by opacity and secrecy. Existing measures of coalition conflict rely on static values from the onset of governments to infer how cooperation in office is most likely to proceed. Much less is known about the

precise dynamic behaviours associated with coalition incumbency. This chapter addresses the lacuna in empirical analysis of coalition governance by introducing a novel measure to assess the extent to which coalition governments are disciplined or differentiated in parliament. Existing measures on the state of a coalition government often merely capture this state at the start of incumbency, such as the ideological distance between coalition parties derived from electoral manifestos, and, therefore, fail to shed light on the exact dynamics between coalition parties for their duration in office. Although recent publications have attempted to measure coalition differentiation dynamically, these measures often rely on restricted samples due to limited data availability or the time-intensive nature of coding.

Using supervised classification of legislative speeches, this measure captures the degree to which coalition parties present distinct preferences or a united front in parliament for every month a coalition is in office. With 4,328 monthly party scores, covering close to 70 governments across ten European democracies, this approach therefore enables the dynamic examination of intra-coalition interactions, providing valuable insights into coalition governance. This allows not only the dynamic measurement of the state of coalition cabinet per month, it also further unpacks this dynamic by considering party-level scores. As a result, one can disaggregate coalition behaviour to the party level, and as such consider a party's role and response in intra-coalition conflict. With this measure researchers, therefore, no longer need to infer the state of coalition governance based on information from the coalition formation stage.

More precisely, future research can employ this measure to assess key questions surrounding coalition governance with much more variation than previously possible. For example, the process of coalition legislating can be unpacked by assessing under which conditions legislating becomes protracted, and how a differentiated coalition affects legislative output. In turn, differentiation scores allow for the study of coalition responsiveness: is a coalition government's sensitivity to public demand a united response across all parties, or does it induce coalition conflict? And of course, at cabinet level these scores can indicate how internal divisions

influence pre-term coalition terminations. At party level, this measure can show how coalition parties manage public perception and minimise punishment from the electorate during the incumbency, and, in turn, under which conditions parties make concessions and fail to differentiate.

There are, nevertheless, two marked limitations to this measure which should be noted. Since the performance of supervised classification is influenced by country specific variables, such as the size of the unique vocabulary found in the parliamentary speech corpus, as well as legislative procedure influencing the amount of speech data available, this measure cannot be employed to study cross-country variation. Hence the inclusion of a country fixed effect is advised when including more than one country in a model. Instead, the comparative value of this measure lies in cross-cabinet comparison, and between the parties comprising coalition governments.

Moreover, this measure can only be interpreted as described in this chapter for political systems characterised by a significant degree of party unity in the legislature. Differentiation is argued to be a centralised party behaviour which is intentionally employed. In any political system in which this assumption is violated, such as countries with less entrenched political institutions and parties, the measure will be subject to much more noise. In turn, it should be noted that even in disciplined legislatures, there remain the rare occasions where party leadership is protractedly, and publicly, divided whilst in coalition government, mostly seen in coalition governments including a populist party. Since this also introduces noise, this measure is less suitable to assess coalition rule by populist parties.

A word after a word after a word is power.

— Margaret Atwood (2002)

4

Who gets to be different?

Assessing the Failure to Present Coalitional Unity in Parliamentary Speech.

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4.1 Introduction

Unity and compromise lie at the heart of coalition governance. As posited by Fortunato (2019a): 'willingness and ability of parties with dissimilar policy preferences to compromise is a necessary condition for policy change in divided and multiparty government, and is critical to addressing new hurdles, [. . .] in many cases compromise may be necessary to simply maintain the function of the state' (p.60). Any kind of individual incumbency benefit can only be obtained through

collective action (Lupia and Strøm, 2010). In turn, willingness to do so does not only result in policy change, but it is also likely to signal to the remaining parties in parliament that they are an agreeable partner in government (Fortunato, 2019b). As a result, there is a strong incentive for coalition parties to compromise and unite behind the coalition consensus agreed upon.

However, it is not a sustainable strategy for coalition parties to choose compromise, and its associated benefits, exclusively. Doing so signals a failure to deliver governance outcomes in the way they were formulated as electoral pledges. Coalition compromise inadvertently signals that a party 'is not vigorously pursuing the policies it has promised its supporters, has abandoned its core positions or is simply incompetent' (Fortunato, 2019a, p. 60). Consequently, this will 'undermine a party's carefully established profile' (Martin and Vanberg, 2008, p. 503) and make 'credit claiming for various accomplishments more difficult' (Fortunato, 2019b, p. 242). Previous research indicates that voters closely consider governance outcomes when updating their assessment of the parties in a coalition (Bernardi and Adams, 2019; Bowler et al., 2020; Fortunato and Stevenson, 2013; Fortunato et al., 2021). The more such outputs reflect compromise, the more likely voters are to punish or retaliate (Fortunato, 2019a; Greene et al., 2021; Narud and Valen, 2010). Thus, disregarding ideal policy preferences in favour of compromise and joint governance comes with a certain 'cost of ruling' (Nannestad and Paldam, 2002), which contributes to the overall incumbency penalty a party may experience.

Parties are, however, significantly limited in their ability to differentiate from each other whilst in office. Perhaps one of the most common forms of coalition party differentiation, considered in the literature, is ministerial drift, which refers to the process whereby a minister proposes legislation closer in line with her party's ideal than the coalition consensus (Martin and Vanberg, 2011). This is, however, a rare occurrence as it is often heavily restricted by a number of control devices which ensure adherence to the coalition consensus, such as publicly available coalition agreements (Klüver and Bäck, 2019; Klüver et al., 2023; Krauss, 2018; Moury, 2012), strong legislative committee systems (Martin and Vanberg, 2011; Zubek,

2015), or the strategic appointment of junior ministers (Lipsmeyer and Pierce, 2011). Differentiation through distinct voting behaviour on bills or denouncing other party's policy successes are also unlikely to occur, as this would violate collective cabinet responsibility (Laver and Shepsle, 1996). Collective cabinet responsibility 'stipulates that the government present a united front on all policy matters, particularly after the policy has passed the parliament' (Fortunato, 2021). Since violations of this responsibility are inherently antithetical to coalition cooperation, parties doing so risk expulsion from the coalition or triggering pre-term termination. This implies that to maintain a coalition government, parties are incentivised to support each other's policy proposals by voting in favour, and subsequently refraining from any form of public criticism. This leaves the opportunities during the legislative process, after submission of the bill and prior to the final vote, for parties to differentiate in public-facing arenas without violating collective cabinet responsibility. As a result, literature attempting to capture coalition differentiation has focussed on parliamentary speech (Martin and Vanberg, 2008), legislative amendments (Fortunato, 2019b, 2021), parliamentary questions (Sozzi, 2023), and party press releases (Sagarzazu and Klüver, 2017).

What this indicates is that coalition parties experience mutually exclusive incentives to compromise for policy making, and to publicly differentiate from coalition partners to maintain a distinct party brand in the eyes of the electorate. This conundrum has been widely identified in the existing literature (Bernardi and Adams, 2019; Boston and Bullock, 2010; Fortunato, 2019b, 2021; Lupia and Strøm, 2010; Martin and Vanberg, 2008; McEnhill, 2015; Sagarzazu and Klüver, 2017; Velden and Schumacher, 2015). Boston and Bullock (2010) coined this the unity – differentiation dilemma, as parties seek 'how best to balance the desire for unity or cohesion (and hence effectiveness) with the equally important electoral imperative to maintain party distinctiveness or differentiation' (p.41). Despite the frequent occurrence of the unity-differentiation dilemma in existing literature, there is little work, and no consensus, on the exact conditions when one prevails over the

other. In the words of Bernardi and Adams (2019): 'it is unclear how governing parties balance these conflicting motivations' (p.1502).

This chapter addresses this ambiguity by introducing a novel theory of coalition differentiation. Specifically, the obstructive bargaining power theory identifies differentiation as an inherently obstructive behaviour, which only those parties engage with who hold strong bargaining power. An empowered position in the coalition implies that this particular party is unperturbed by the possible policy gridlock or even pre-term termination, as a consequence of their obstructive behaviour. These expectations stand in contrast to the few existing theoretical accounts of differentiation behaviour, which collectively assume all coalition parties can engage in this behaviour equally. Drawing on a sample of 59 coalition governments, from eight European democracies, and using novel dynamic measures for both differentiation and bargaining power, the following analysis indicates a significant positive association between coalition party bargaining power and subsequent differentiation. These findings reinforce the notion that strong coalition parties are able to differentiate more and thereby shed light on the careful weigh-off coalition parties make when deciding whether to publicly unite with their coalition partners or revert back to their distinct party line.

4.2 The Utility of Differentiation

Although the existing literature on coalition party differentiation is limited, one can distinguish two main theoretical camps. Both are detailed below.

4.2.1 Uniform Election Proximity Response

The Uniform Election Proximity Response (UEPR) theory of differentiation stipulates that differentiation is a coalition behaviour that is exclusively reserved for campaigning. More precisely, these theories state that as planned elections draw near, coalition parties will start to pull away from each other to re-establish their party brand in time to face the electorate as separate entities (Martin and Vanberg, 2008; Sagarzazu and Klüver, 2017; Velden and Schumacher, 2015). This,

therefore, assumes that as a term in office commences, 'the benefits of cooperation are greater than the benefits of differentiation as government stability ensures control over political offices' (Sagarzazu and Klüver, 2017, p. 337). As the incumbency progresses, and the subsequent general election approaches, these incumbency benefits significantly reduce as bills introduced towards the end of a term are less likely to come to a vote and thus to be implemented (Martin, 2004; Martin and Vanberg, 2008). In turn, the utility of differentiating greatly increases with the prospect of elections, as voting is one of the most impactful ways party supporters can reward or denounce party behaviour in office (Martin and Vanberg, 2008). Without publicly establishing how coalition parties are distinct and emphasising their accomplishments in office, parties could risk re-election (Sagarzazu and Klüver, 2017). Moreover, Martin and Vanberg (2008) emphasise that the incentive or need to differentiate at this stage is a function of the distance between the ideological ideal points of the parties in office. The larger the differences the more substantial the sacrifices made by parties whilst in office, and hence the more there is to account for during campaigning.

The resulting utility function of the UEPR theory of differentiation therefore looks as follows:

$$U_d = m + r \tag{4.1}$$

where U_d is the utility of differentiating, m is the ideological distance between the coalition parties' ideal points which indicates the extent differentiation is necessary, and r is the proportion of the government term that has passed and therefore indicates the imminence of planned elections.

If we assume that the value of m is consistent throughout incumbency, and the value of r increases as the term progresses, the resulting utility curve for differentiating could resemble the one depicted in Figure 4.1. When compared to a utility curve of uniting in government which decrease as time passes, the utility to differentiate only surpasses the utility of uniting toward the end of government term.

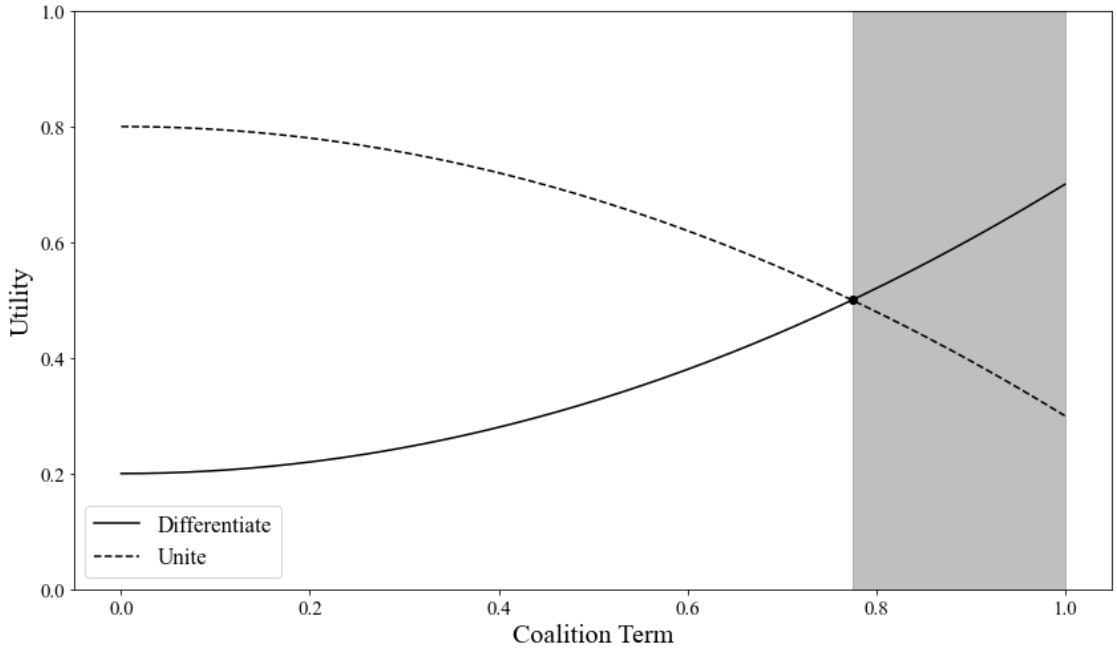


Figure 4.1: Utility of Uniting Compared to the Utility of Differentiating for the Duration of Incumbency According to the UEPR Theory of Differentiation.

A core assumption at the heart of the UEPR theory of differentiation is that the values attributed to the variables in these utility functions are uniform for all parties. This implies that in the period between the intercept of utility curves, and the planned elections (indicated by the area shaded grey in Figure 4.1), all parties are allowed to deviate from a consensus by differentiating publicly, as to minimise the incumbency penalty generated by a term of compromise. Differentiation from this theoretical perspective can thus be considered a uniformly adopted campaigning strategy.

4.2.2 Popularity Correcting Response

The Popularity Correcting Response (PCR) theory of differentiation has been championed by David Fortunato (2019b, 2021). This take on differentiation emphasises that the utility to differentiate is unlikely to be equal between coalition parties, as the UEPR theory claims. Fortunato, instead, argues that coalition parties will consider the state of their distinct party brand throughout incumbency and not just prior to elections. As indicated above, voters continuously update

their perceptions of coalition parties. If voters perceive the parties in office to be too similar, this will likely result in loss of support for the compromising party (Bernardi and Adams, 2019; Bowler et al., 2020; Fortunato, 2021; Fortunato and Stevenson, 2013). Thus, 'as the perceived distance between the [coalition parties] closes (relative to their strategically selected positions), the benefit of differentiation [...] increases.' (Fortunato, 2019b, p. 243). Once this increase in the utility of differentiation outweighs the benefits associated with incumbency, parties are then driven to violate coalitional unity and publicly differentiate from their partners. Parties do so with the aim of correcting the damage done to their party brand. At this point, 'conflictual behavior is not merely a strategy for increasing vote share, but a requirement for preventing losses'(Fortunato, 2019a, p. 76). The resulting utility function of the PCR theory of differentiation therefore is[1]:

$$U_{dat} = (m - v_{at}) + p_a - c_a \tag{4.2}$$

where U_{dat} is the utility of differentiating for party a at time t, m is ideological distance between the ideal preferences of the parties joined in office, and v is the perceived distance of party a to its partners at time t. Subtracting v_{at} from m therefore represents the extent of the perceived compromise party a is making, which Fortunato (2021) indicates as the electoral benefits of differentiating. In turn, p represents the possible policy benefit party a could achieve by differentiating, and c is the cost of differentiating for party a, such as the time and resources it would take. According to this function, not only will the utility of differentiating vary between coalition parties, but it will also fluctuate as voters update their perceptions of similarity of a party to its coalition partners. As a result, a party-specific utility curve for differentiating could resemble the one depicted in Figure 4.2. If we assume the utility to unite remains unchanged from Figure 4.1, the utility to differentiate

[1]This function is taken from Fortunato (2021, p. 98) and adapted to include subscripts to emphasise its correcting nature.

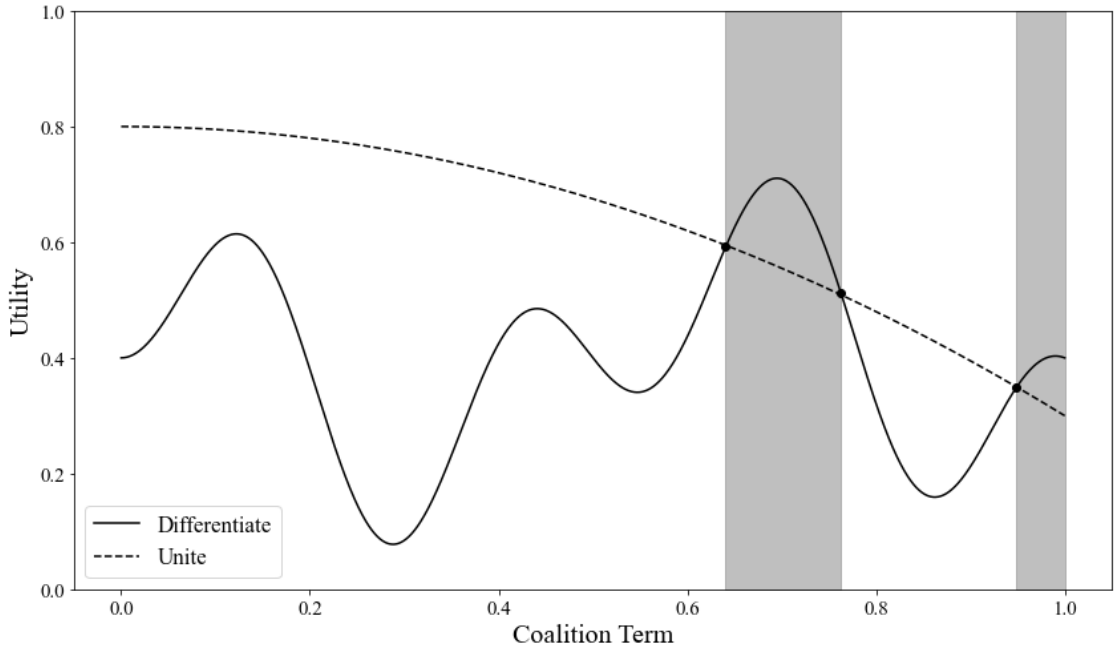


Figure 4.2: The Utility of Uniting Compared to the Utility of Differentiating for the Duration of Incumbency According to the PCR Theory of Differentiation.

surpasses this curve at two different point of the incumbency. As a result, one would expect this party to differentiate twice whilst in office, indicated by the grey shading.

This take on the unity-differentiation dilemma assumes that, within the bounds of collective cabinet responsibility, coalition parties are allowed to show deviant behaviour in order to save their declining party brand and minimise their incumbency penalty. In fact, differentiation within these bounds is not only accepted, but also considered a key part of coalition governance. Fortunato (2021) argues that the extent to which a party can differentiate is determined prior to a bill even being submitted to the legislature. During confidential coalition negotiations, parties establish the extent the proposing minister can drift from the coalition consensus with their legislative proposal, which the remaining parties then subsequently plan to correct by tabling amendments. In this win-win scenario both the proposing and reviewing parties get to differentiate publicly, either through ministerial drift or amending, whilst eventually passing a bill which resembles the predetermined policy compromise. This performative conception of coalition governance illustrates that parties do not solely bargain on policy outcomes, but also on the ability

to differentiate.

Such a proposition is, however, improbable since coalition parties are unlikely to have the extensive resources and control required to ex-ante determine not only a consensus on a policy outcome, but also the behaviour of each coalition party during the entire legislative process. Moreover, within coalition governments 'public support is the linchpin of a political party's power' (Lupia and Strøm, 2010, p. 63). Hence it is inconsistent to expect that a party with wavering support, and therefore a weak bargaining position, somehow can still negotiate a bargaining outcome whereby they get to differentiate and increase their public support. Especially since doing so will inadvertently improve their intra-coalition bargaining position. Therefore, this chapter introduces a novel theory of differentiation, where differentiation is not a bargaining outcome, and instead a deviant behaviour which only those parties with a favourable bargaining position can afford to engage in.

4.3 Obstructive Bargaining Power Theory of Differentiation

Differentiation to correct a decline in public support is unlikely to be part of a coalition bargaining outcome. As the above posits, this would be a very unlikely equilibrium of a coalition bargaining game. Instead, it makes more sense to see differentiation as something which parties will use at their own discretion, with the knowledge that it is a deviation from the coalition consensus, and that it comes with a price.

The only costs to differentiation included in the PCR theory of differentiation, as long as it does not violate collective cabinet responsibility, are the resources required to do so. This is intuitive, as, within this theoretical scope, differentiation is not considered a deviant behaviour and instead something which all coalition parties consented to. Yet once we accept that differentiation is unlikely to be the result of a coalition consensus, one can assume that publicly defying coalitional unity, even within the bounds of collective cabinet responsibility, will have consequences for the state of coalition governance itself.

Coalition incumbency is characterised by a continuous bargaining process, throughout which parties assess whether membership is worthwhile (Lupia and Strøm, 1995, 2010). In doing so, parties quantify the benefits of incumbency with 'an algebraic summation of at least eight decision costs' (Adrian and Press, 1968, p. 562). This range of costs includes 'all costs that result from supervising and enforcing the deal ex post' (Strøm, Müller, and Bergman, 2010, p. 25). Public differentiation during the legislative process can be considered a form of obstruction to the implementation of the agreed upon bargaining outcome, such as the implementation of a certain piece of legislation. This is the case, not least because a member of the coalition party is investing time and resources into voicing disagreement, but also due to the signal it sends to the broader parliamentary arena. Whitaker and Martin (2022) find that any failure of public unity amongst coalition parties is strategically exploited by opposition parties. This means that since differentiation signals coalitional conflict, this will incite an increase in legislative scrutiny from the opposition. As a result, it will cost the proposing coalition party significantly more effort to address and endure the scrutiny its bill is experiencing, in comparison to what it would have endured without its partner differentiating. Obstruction in coalition bargaining can therefore lead to a significant delay in policy making. This is reflected in the findings of Zubek and Klüver (2015), who find that legislative pledges pertaining to a policy area on which the coalition disagrees are much slower to be fulfilled, compared to those in areas characterised by consensus.

Legislative gridlock does not only put significant pressure on a party's resources, but such delay also comes with 'crucial electoral costs for both the partner and the office-holding ministerial party' (König et al., 2022, p.233). All together this will unquestionably increase the costs of enforcing the pre-determined deal which the proposing party experiences, and thus will affect the 'algebraic summation' a party consults when assessing the continuation of their coalition membership. Once such costs outweigh the expected benefits, a coalition party would seriously consider whether to remain a part of the coalition. This implies that indirectly, by increasing

decision costs, differentiation has the potential to destabilise the coalition, even if it does not immediately violate collective cabinet responsibility.

The novel Obstructive Bargaining Power (OBP) theory of differentiation introduced in this chapter, assumes parties are aware of the indirect cost differentiation will incur on themselves and others, and therefore will only engage in differentiating behaviour under specific circumstances. A coalition party will only do so when it holds a favourable bargaining position. As previously mentioned, bargaining power in coalition governments is determined by a party's public support. More precisely, it is determined by the likelihood a party would be included in a future coalition configuration, were the government to collapse in that instance (Kayser et al., 2022; Lupia and Strøm, 2010). This implies that a coalition party with strong bargaining power could simply leave the current coalition, trigger a renegotiation, and negotiate a more favourable position for itself in the subsequent cabinet.

The process of departure and renegotiation, however, comes with costs of its own, and hence one would expect parties to use, initially, their favourable position within the coalition to maximise their incumbency benefits (Saalfeld, 2010). Especially, when the rest of the coalition have less favourable bargaining positions, and therefore a vested interest in maintaining the current coalition configuration, a strong party can leverage its position by strategically employing a threat to exit the coalition. By doing so, a strong party can obtain further accommodations, including the right to differentiate. In this way the strong party is able to enjoy incumbency benefits, whilst simultaneously minimising the anticipated incumbency penalty through differentiation. The remaining coalition parties would endure the associated costs as these remain more favourable than facing the electorate early.

Thus, in the OBP theory of differentiation, coalition parties will assess their ability to differentiate, based on their bargaining power, so as to not actually trigger a coalition termination. Moreover, one would only expect parties to consider such behaviour if there is reason to believe there would be a substantial incumbency penalty to begin with. As posited earlier, the larger concessions made by coalition parties, the larger the subsequent incumbency penalty is thought to be. As a result,

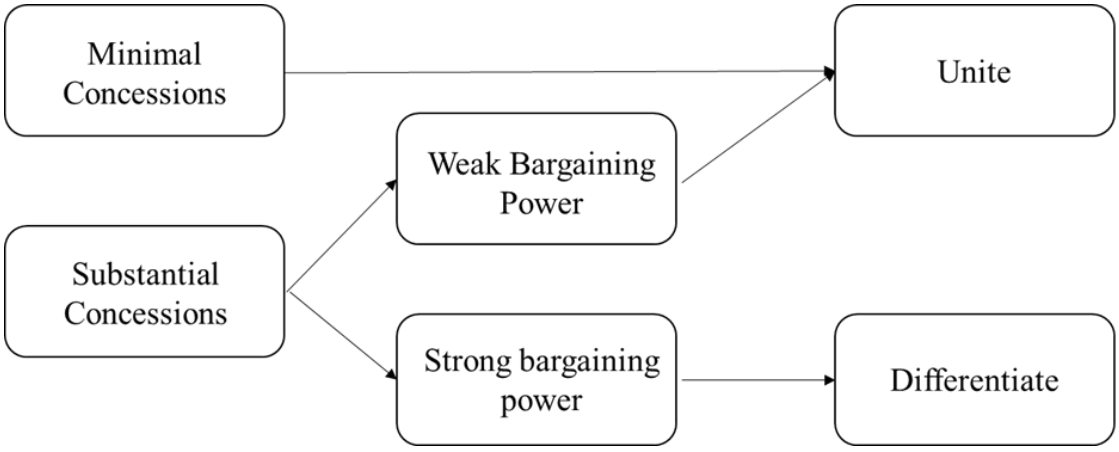


Figure 4.3: Model of The OBP theory of Coalition Differentiation.

the incentive to differentiate is not reactive to the perception of likeness at time t, and instead driven by the anticipation of the future incumbency penalty and bargaining power. The full OBP theory is summarised in the diagram of Figure 4.3, and its utility function looks as follows:

$$U_{dict} = b_c + w_{ict} \tag{4.3}$$

where U_{dict} is the utility of differentiating for party i in cabinet c at time t, b indicates the anticipated incumbency penalty of party a and therefore its need for differentiation, and w is the bargaining position of party i in cabinet c at time t.

Thus, for the OBP theory of differentiation, the fluctuations in the differentiation utility curve as depicted in Figure 4.2 are not driven by a party's perceived difference to its partners. But, instead, are driven by a party's bargaining position within the coalition. As such, the resulting hypothesis is:

> *H: Coalition parties with strong bargaining power will differentiate more than their weaker counterparts.*

This hypothesis is a departure from the expectation of the PCR theory of differentiation which emphasises a negative association instead: as a party's public support decreases, it will increase differentiation as an attempt to correct for the drop in popularity.

4.4 Data & Variables

To assess the conditions under which coalition parties engage in differentiation behaviour, this chapter specifically considers differentiation in parliamentary speech. Not only does this form of differentiation remain within the confines of collective cabinet responsibility, it is also established that parliamentary speech is a key strategic tool employed by coalition parties to signal to their party membership, as well as to the wider electorate, why certain policy concessions were made and how party ideals were defended (Martin and Vanberg, 2008, 2014; Proksch and Slapin, 2015). Speech can therefore be considered a key differentiation device which is not resource intensive, and therefore easily accessible to all coalition parties. The unit of analysis are parties, with observations per month. The total sample consists of 59 coalition governments, from the following eight European democracies: Austria, Czech Republic, Denmark, Germany, Ireland, The Netherlands, Norway, and Sweden.[2] The time period included differs per country, yet on average this concerns data from the last 20 years.

4.4.1 Dependent and Independent Variables

The dependent variable is a monthly score of differentiation in parliamentary speech, as generated in Chapter 3 of this doctoral thesis. This measure is the performance metric of a supervised machine classification of parliamentary speech, which allows one to deduce fine-grained difference in language use between coalition parties. If the classification is accurate, the coalition parties are speaking distinctly. Yet if the classifier fails to distinguish between the speeches of different coalition parties, this indicates parties are speaking similarly. This is subsequently interpreted as coalition parties presenting a public-facing united front. This score is generated per party, per month. A high score indicates a party is very distinguishable from its partners, and, as such, differentiated, whereas a low score implies a party is closely assimilated to its partners.

[2] I had to exclude Belgium and France from the sample as presented in Chapter 3, as there is no CIP data for these countries.

The OBP theory of differentiation is measured using the dynamic Coalition Inclusion Probability (CIP) scores as introduced by Kayser et al. (2022). These monthly scores are derived from poll data, as well as a multitude of other variables, which are likely to influence a coalition party's likelihood of being included in subsequent government formations, were the current cabinet to collapse at that moment. The higher this likelihood is, the stronger a party's position is in the incumbent coalition government. Kayser et al. (2022) also released the raw poll data on which this measure is based, which is included in some of the models below to assess the influence of individual control variables on differentiation. The monthly values of this measure reflects how many seats a party is expected to obtain based on national polling data that month, were elections called in that instance.

4.4.2 Control Variables

As theorised by the UEPR theory of differentiation, there is a consistent time trend to differentiation, where it increases as the electoral term progresses. To control for this, the logistic transformation of the number of days left until the next planned national elections, as operationalised by Martin and Vanberg (2008), is included in the model. This variable is termed Electoral Cycle and is calculated from the first day of the month from which parliamentary speech is available, and the date of the next planned election taken from the Party Government in Europe Database (PAGED) (T. Bergman et al., 2021). Two additional party-level control variables are included in some of the models: a binary variable indicating whether a party holds chief executive status and each party's seat share in parliament. Both a larger seat share, and executive status are indicators of institutional power and resources which would aid in differentiating behaviour. One should, therefore, expect a positive association. Metadata for these control variables are taken from the ParlGov database (Döring et al., 2022). Table 4.1 reports the descriptive statistics for all variables listed above.

Table 4.1: Descriptive Statistics for all Variables Included in the Analysis.

Variable	N	Mean	SD	Min	Max
CIP	3482	2.524	1.680	0	12
Poll Performance	3482	110.577	72.005	0.230	370.333
Differentiation	3482	0.400	0.131	-0.214	0.717
Executive Status	3323	0.438	0.496	0	1
Seat Share	3323	65.009	73.757	2	319
Electoral Cycle	3450	6.543	0.695	2.398	7.510

4.5 Analysis

In testing the hypothesis specified above, two main challenges arise: reversed causality and omitted variable bias. Based on the OBP theory of differentiation, the relationship between coalition bargaining power and differentiation is likely to be subject to reversed causality. While this theory stipulates a positive effect of bargaining power on differentiation, this behaviour is subsequently theorised to improve performance in the polls, and, with that, a party's relative strategic position. This circular relationship implies that when differentiation at time t is regressed on a variable for bargaining power at time t, there is no certainty whether it is picking up on the effect of bargaining power on differentiation, vice versa, or both.

As such, it is imperative for the modelling strategy to isolate this stage from the subsequent one. Fortunato (2019b) addresses this issue by taking the value of his independent variable, perceived similarity, from the onset of a coalition government. By doing so, he ensures this value has not been influenced by incumbency differentiation behaviour. In a similar vein, one can consider chief executive status to be a static proxy of bargaining power which is unable to be affected by incumbency differentiation. The party supplying the prime minister is often the largest party, and additionally has institutional privileges over its coalition partners, both of which will provide bargaining power. Nevertheless, such a static proxy remains unable to unveil the more dynamic relationship between bargaining power and differentiation. Instead, the models below isolate the dynamic interplay

of bargaining power on differentiation throughout coalition incumbency by including the value of CIP at t-1 as the main independent variable explaining variation in differentiation at time t. This ensures past values of CIP explain current values of differentiation. Additionally, I include the lagged dependent variable, differentiation at time t-1, in the model as well.[3] This controls for the persistence of past values of differentiation influencing its current value.[4]

Addressing the second challenge, omitted variables bias, is more challenging to do, specifically in models including CIP. More precisely, CIP is estimated on a large range of variables likely to affect coalition inclusion. Many of these variables also conceivably influence coalition differentiation, albeit through different channels. For example, whether a coalition party holds chief executive status is strong predictor of coalition inclusion, yet these parties will also hold more resources which facilitate differentiation in legislative speech. Including the variables which are used to estimate CIP in a model together with CIP itself, will certainly introduce multicollinearity.

To account for this, all models below include cabinet fixed effects. This allows for varying intercepts for each cabinet and thereby accounts for cabinet-specific confounders which are likely to affect differentiation but cannot be included without introducing collinearity. This includes majority status, the number of parties in government, and the ideological polarisation of the cabinet. Such a fixed effect additionally controls for variables at country level, such parliamentary speech rules and linguistic features which may influence the outcome variable as well.[5] This does not, however, account for party-level variables such as parliamentary seat share or chief executive status. Since these cannot be included without introducing noise, I estimate separate models, using the poll data on which the dynamic CIP scores

[3] In Appendix B.1 I assess how including different lags of the dependent variable affects the effect of CIP/poll performance and find that the outcomes are not significantly different if larger lags are included.

[4] The inclusion of lagged dependent variables to account for autocorrelation has the potential to introduce bias in the coefficients (Keele and Kelly, 2006). Whether this is the case in this analysis ought to be subject to future analyses considering more advanced econometric time-series modelling like the pseudo-iv GLS estimation (Box-Steffensmeier et al., 2014).

[5] More details on this are available in Section 3.6.2 of this doctoral thesis.

are estimated as the main independent variable. How well a party is faring in the polls is namely theorised to be an essential part of a coalition's bargaining power (Lupia and Strøm, 2010). I recognise that Kayser and Rehmert (2021) indicate that poll performance alone does not capture bargaining power sufficiently, especially for smaller coalition parties. Nevertheless, this measure approximates CIP, whilst allowing for the inclusion of party-level control variables. The resulting main formula to estimate a party's level of differentiation at time t (Diff_{ict}) using CIP is:

$$Diff_{ict} = \alpha_c + \beta_1 CIP_{ict-1} + \beta_2 Elec_Cycle_{ict} + \beta_3 Diff_{ict-1} + \epsilon_{it} \quad (4.4)$$

where α_{c} are the cabinet fixed effects, $\text{CIP}_{\text{ict-1}}$ is bargaining power for party i in cabinet c at month t-1, $\text{Elec_Cycle}_{\text{ict}}$ is the time trend expected during the incumbency, $\text{Diff}_{\text{ict-1}}$ is the lagged dependent variable to account for autocorrelation, and finally ϵ_{it} is the error term. In turn, the model including poll performance as the independent variable is:

$$Diff_{ict} = \alpha_c + \beta_1 Polls_{ict-1} + \beta_2 Elec_Cycle_{ict} + \beta_3 Diff_{ict-1} + \beta_4 \mathbf{X}_{ict} + \epsilon_i t \quad (4.5)$$

Where $\text{CIP}_{\text{ict-1}}$ is substituted by $\text{Polls}_{\text{ict-1}}$, which is the performance of party i in cabinet c in the national polls during month t-1. Moreover, $\mathbf{X}_{\text{ict}}$ is included to represent a matrix of the two control variables. Finally, the standard errors of all models are clustered by cabinet, as the party values within cabinets are unlikely to be independent of each other. The results of these cabinet fixed effect panel regressions are reported in Table 4.2. The first three models reported in Table 4.2 concern those with CIP as the independent variable. When controlled for time trend and autocorrelation, the significant effect of $\text{CIP}_{\text{t-1}}$ on differentiation is 0.013. This implies that a one unit increase in CIP at t-1, results in an increase of 0.013 in differentiation at time t. The latter four models of Table 4.2 consider poll data as the main independent variable, with model 7 additionally controlling for two key

party-level variables. The coefficient after inclusion of control variables indicates that at a single unit increase in the polls, differentiation increases by 0.0003.

To make these effects less abstract, one can compare it to the effect of chief executive status on differentiation. As mentioned previously, executive status is likely to positively influence differentiation, as these parties hold more bargaining power and resources with which to display this behaviour. Moreover, since executive status is unaffected by differentiation behaviour throughout incumbency, this effect is certainly not subject to reversed causality. Model 7 reinforces this expectation by showing that chief executive coalition parties tend to differentiation more. Since chief executive status is indicated by a binary variable the effect size of 0.010 after a single unit increase, indicates the change in differentiation between parties that do and do not hold chief executive status.

Differentiation, in contrast, varies between 0 and 12, and poll performance between 0.2 and 370.3. The effect of a unit increase in these independent variables, therefore, refers to a much smaller relative change. If we consider a hypothetical scenario where a coalition party goes from the minimal value of CIP (0) to the maximum value (12), the increase in differentiation would be around 0.156 (0.013 * 12). As for poll performance, going from the minimum to the maximum value would result in a 0.111 change in differentiation (0.0003 * (370.33-0.23)). These effects are between 10 and 15 times larger than the effect of holding chief executive status. Thus, although the effect of CIP and poll performance on differentiation are seemingly small, it is rather substantial when compared to the effect of an indicator of considerable status and power, such as chief executive status. Additionally, the R2 of model 1 indicates that when considered in isolation, CIP at t-1 explains around 18% of the variation found in differentiation within a cabinet, at time t. For poll performance this goes up 39% in model 5.

A key assumption of panel regression is the stationarity of variables. This implies the mean and variance of all variables included in the analysis are stable over time. It is, however, challenging to establish whether variables in this panel dataset are stationary, since existing stationarity tests such as the Augmented Dickey Fuller test

Table 4.2: Cabinet Fixed Effects Panel Regression Analysis of Coalition Party Differentiation.

	Dependent variable:						
	Differentiation						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CIP $_{t-1}$	0.026***	0.013***	0.013***				
	(0.005)	(0.003)	(0.003)				
Poll Performance $_{t-1}$				0.001***	0.0005***	0.0005***	0.0003***
				(0.0001)	(0.00005)	(0.00005)	(0.0001)
Electoral Cycle			0.0003			0.001	0.001
			(0.002)			(0.002)	(0.002)
Chief Executive Status							0.010*
							(0.005)
Seat Share							0.0002***
							(0.0001)
Differentiation $_{t-1}$		0.502***	0.502***		0.336***	0.335***	0.298***
		(0.056)	(0.056)		(0.071)	(0.071)	(0.076)
Cabinet Fixed Effects	✓	✓	✓	✓	✓	✓	✓
Observations	3,341	3,341	3,314	3,341	3,341	3,314	3,188
R^2	0.181	0.395	0.396	0.391	0.462	0.463	0.480
Adjusted R^2	0.167	0.385	0.385	0.380	0.453	0.453	0.471
Note:							*p<0.1; **p<0.05; ***p<0.01

cannot be reliably estimated on short panels. In the case of the unbalanced panel dataset used in this analysis, some cabinets, and therefore also parties, are only in office a few months. As a result, the test for unit roots are likely to be inaccurate. As stated by Baltagi (2005): 'For small T, panel unit root tests have low power and there is the potential risk of concluding that the whole panel is non-stationary even when there is a large proportion of stationary series in the panel' (p. 247). Yet, non-stationarity is plausible, since there is likely to be a time trend in the outcome variable, as well as a good chance that a party experiences steadily increasing, or decreasing, popularity and bargaining power throughout incumbency. To account for this real possibility of non-stationarity in the panel, Appendix B.2 runs a first difference analysis. The result reported in this appendix shows that even with this adjustment, the results found in the main analysis persist.

The fact that both CIP, poll performance, and chief executive status are positively and significantly associated with differentiation ostensibly suggests that empowered parties are able to differentiate more than their counterparts. This is in line with the expectations of the OBP theory of coalition differentiation. This is consistent with the hypothesis presented in this chapter. This finding, however, does stand in direct contrast to the expectations of the PCR theory of differentiation. This alternative theory stresses that when performing poorly in the polls, parties will correct this through differentiation. The complete absence of a negative association between poll performance in the preceding month and differentiation shows that parties with waning popularity do not increase their public differentiation in speech. It should be noted that the original work introducing the PCR theory by Fortunato (2019b), operationalises the independent variable as the perceived similarity of coalition parties by voters, and not directly the performance in the polls. It is assumed that, as such perceived similarity increases, this will incite a decrease in public support, which, in turn, will trigger coalition party differentiation. Appendix B.3 investigates the effect of this original operationalisation when included in the model and run on a subset of the research sample. This analysis shows that not only the effect of perceived similarity is insignificant, the positive association between poll

performance in differentiation persists even when perceived similarity is included. This reinforces the notion that the theoretical expectations put forth by the PCR theory do not appear to be borne out.

4.6 Conclusion

This chapter introduces a novel theory of coalition differentiation in parliamentary speech. Contrary to existing accounts, the OBP theory of differentiation argues that departing from a coalitional united front in the parliamentary arena is a purposefully obstructive behaviour which only the more empowered coalition parties in the cabinet can engage in. The interplay between bargaining power and differentiation is not novel in and of itself. It is already widely established in existing literature that differentiation is a tool used by coalition parties to minimise the electoral penalty associated with compromise. This will thus increase their poll performance, and thereby indirectly improve their bargaining power. Nevertheless, these existing theoretical accounts do not set out precise expectations as to whether all parties can engage in this behaviour equally. To account for this lacuna, the OBP theory of differentiation hypothesises that public differentiation is an obstructive behaviour which has the potential to introduce policy delays or even stalemate. Only parties who would not be significantly disadvantaged by this, or even by a possible early termination as a consequence, will engage in differentiating behaviour. This theoretical lens thus presumes that the association between bargaining power and differentiation is circular: strong parties can afford to publicly differentiate, which in turn, empowers them further.

Considering the mutually reinforcing relationship between bargaining power and differentiation, the modelling strategy accounts for reversed causation by isolating the preceding effect of bargaining power on differentiation itself. By including the monthly values for CIP and poll performance from a month prior to the observed differentiation, I model the effect of the bargaining power in the recent past, on current differentiation behaviour. I also controlled for the trend in differentiation over the duration of incumbency, the autocorrelation of the dependent variable, and

omitted variables by including control variables and cabinet fixed effects. Altogether, this showed that both CIP and poll performance have a significant and positive effect on coalition differentiation in parliamentary speech. It should be noted that although this modelling strategy provides valuable insights, it remains possible that some of the effect is driven by omitted party-level variables which are challenging to capture, such as the nuances of effective party leadership.

An additional static assessment of the effect of bargaining power on differentiation can be made on the basis of a party's executive status. Chief executive parties are institutionally empowered over their coalition partners. This power is fully unaffected by subsequent differentiation, and as a result, not subject to reversed causality. Since the effect of chief executive status on differentiation is positive, this indicates that the prime minister's party differentiates more, on average, and therefore acts as additional evidence of the positive association found with the dynamic independent variables.

The analysis demonstrates that three different operationalisations of bargaining power are all positively associated with differentiation, which is consistent with the central hypothesis of this chapter. In contrast, these findings are inconsistent with the expectations of the main alternative theory of differentiation. Specifically, the PCR theory of differentiation instead promotes a negative association between bargaining power and differentiation. The absence of such a negative relationship instead suggest parties with decreasing public popularity cannot afford to engage in obstructive behaviour. As detailed in the introduction, coalition parties are faced with a unity-differentiation dilemma when in office. They can either unite and effectively contribute to policy or differentiate and maintain a good rapport with their wider electorate. Although this conundrum has been widely identified in the literature, the exact dynamics determining when one prevails over the other remain unclear. The OBP theory of differentiation, and the empirical support presented in this chapter, shed light on such dynamics by emphasising that differentiation triumphs over unity when parties are willing and able to endure the consequences. This not only marks a departure from current expectations

with regards to coalition differentiation, it also provides insights into generally opaque incumbent coalition party behaviour.

Moreover, the finding that differentiation behaviour is not equally available to all coalition parties could possibly explain why junior coalition parties experience a disproportionately electoral penalty for coalition compromise (Hjermitslev, 2020; Johnson and Middleton, 2016). Minor coalition partners often hold a weaker bargaining position than their chief executive coalition partners do. As a result, these parties have less access to differentiation as a tool to manage their public perception. Without the ability to establish a distinct party identity, junior coalition parties may therefore suffer a larger incumbency penalty as a consequence. Future research should thus consider this relationship between bargaining power and differentiation, and their effect on public perception more closely.

The consensus model is characterized by inclusiveness, bargaining, and compromise: for this reason, the consensus democracy could also be termed "negotiation democracy".

— Arend Lijphart (2012, p.2)

5

Obstruction for Credibility

Coalition Differentiation as a Strategic Bargaining Behaviour

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5.1 Introduction

Lupia and Strøm (2010) refer to bargaining, the process by which political parties interact for the purpose of finding a mutually beneficial agreement, as the 'engine' of coalition governance. They establish that 'at every stage of a coalition's life cycle, coalition decisions are the result of bargaining' (Lupia and Strøm, 2010, p. 58). Keeping in mind that the bulk of the world's democratic governments are coalition governments, this implies that the majority of democratic policy is the result of an intricate process of inter-party communication (Martin and Vanberg, 2020a). Yet despite being so prolific, little is known about the precise dynamics of these

bargaining processes. Coalition bargaining is inherently opaque and secretive and as a result, any insights into coalition bargaining collected thus far tend to come from qualitative accounts and recollections, as opposed to direct observations (Andeweg and Timmermans, 2010). These ex-post accounts of coalition governance are not without bias, as coalition parties have been known to take credit for policies fought for by their partners (Matthews, 2019). As a result, there remain many questions regarding coalition bargaining during incumbency. Due to the lack of quantitative data generated by the bargaining process itself, it is challenging to disentangle such questions empirically. Current attempts to do so have relied on static variables taken either from electoral campaigns, the formation stage, or the institutions in place to make inferences about the state of subsequent bargaining. Yet coalition bargaining during incumbency is theorised to be inherently dynamic, and as a result such static measurements are very limited in their ability to capture, and therefore explain, the varying patterns of individual party behaviour making up coalition bargaining.

The theory introduced in this chapter argues that there is an observable dynamic party behaviour which can shed light on coalition bargaining during incumbency. More precisely, it identifies coalition differentiation as a strategic behaviour employed during bargaining. Coalition differentiation refers to the process whereby a coalition party defends a distinct platform from its coalition partners, thereby violating the united front presented by the coalition as a whole. Currently, the purpose of this behaviour is considered to be a campaigning behaviour. This conception, however, does not take into account the inherently obstructive nature of differentiation. Instead, this chapter presents coalition party differentiation as a purposeful obstructive behaviour, intended to signal bargaining power to the remaining coalition partners. In bargaining environments characterised by uncertainty, in particular, party bargaining power is not always evident and recognised by all parties comprising a coalition. As a result, public displays of power can add credibility to potential exit threats. Parties will only have an incentive to behave in such a deviant manner when trying to obtain favourable bargaining payoffs.

The analysis seeking to confirm this theoretical expectation employs novel, dynamic measures of both the chief executive party's bargaining power and differentiation in parliamentary speech to predict a coalition's reform productivity with regards to economic policy. The subsequent results indicate that an increase solely in the bargaining power held by the chief executive party does not automatically translate into an increase in reform activity. Instead, it is the interaction between bargaining power and differentiation which is positively associated with reform productivity. This supports the notion that public displays of deviance add credibility to exit threats, by confirming coalition party bargaining power. As a direct consequence, the differentiating empowered party is more likely to obtain favourable bargaining outcomes. These findings confirm that coalition party differentiation is a window into private coalition bargaining. Consequently, this opens up the possibility of empirically studying principles of coalition policy making which previously have eluded quantitative analysis, such as individual coalition party responsiveness to external pressures or accountability for specific governing outcomes. Moreover, this marks a distinct departure from existing theoretical expectations regarding coalition differentiation. Instead of merely being a channel for outward signalling, intended for the electorate, this chapter establishes coalition differentiation as signalling intended for coalition parties themselves.

5.2 Coalition Bargaining

Coalition bargaining has almost exclusively been studied by analysing how benefits have been distributed amongst the actors involved in the negotiations. The most commonly studied of such outcomes are the distribution of ministerial posts during coalition formation, referred to as portfolio allocation. The payoffs in these negotiations, the ministerial portfolios, are the most 'obvious' incentive for entering a coalition government (Bäck et al., 2011). The reason this type of coalition bargaining is most prevalent in the literature is due to the relatively large amount of information available regarding the process and its players. Not only does it occur over a relatively short period of time, the position and bargaining strength of the

participating parties are generally known, as they will be based on the preceding electoral campaign and results. Subsequently, the resulting outcome, or the portfolio distribution, is very clear. Thus, although outside observers were not privy to the process of negotiation, a lot can be inferred from the prior and subsequent available information. By studying coalition formation previous research has, for instance, been able to establish that whilst seeking to maximise their share, parties weigh the quantitative versus qualitative nature of payoffs. This implies not merely obtaining as many portfolios as their bargaining power allows (Browne and Franklin, 1973; Gamson, 1961), but also securing those portfolios of general and party importance (Bäck et al., 2011; Bucur, 2018; Greene and Jensen, 2018).

Coalition formation, however, is not the end of coalition bargaining. In fact, the more divisive matters are often not even covered in formation negotiations (Fortunato, 2021). Instead, these topics are either left to be addressed later in the incumbency (Greene, 2017), or left out in the hope they will remain of little importance to the public for the duration of the coalition's time in office (Zubek and Klüver, 2015). Additionally, some government policy or response cannot be anticipated in advance. External policy shocks and unexpected developments are bound to happen and are very likely to change the status quo on which the formation negotiations were based (Laver and Shepsle, 1998; Lupia and Strøm, 1995; Saalfeld, 2010). More precisely, Laver and Shepsle identify how critical events, or external shocks, have the ability to destabilise the existing coalition equilibrium and induce bargaining. They state: 'government coalition parties who find as a result of a public opinion shock that they stand to gain seats at the next election (were one held immediately) may nonetheless have an incentive either to continue to accept the status quo, or to renegotiate a new coalition agreement without an election, rather than to force an election and thereby realize anticipated electoral gains' (p. 32).

Nevertheless, the dynamics of bargaining during incumbency are more challenging to study since there is much less known to the outside observer when compared to the formation negotiations. Whilst a coalition government is in office, bargaining is ongoing, outcomes are more challenging to attribute to a

specific party, and the distribution of bargaining power is much more variable. One way these challenges have been addressed in previous research is to infer the state of incumbency bargaining on the basis of static variables. For example, the ideological disagreements in electoral manifestos (Greene, 2017) or the number of formation attempts (T. Bergman et al., 2021; Warwick, 1992) have been considered approximations of incumbency bargaining. This approach, therefore, assumes that bargaining during incumbency is an extension of formation negotiations. Similarly, research has emphasised static institutions likely to affect coalition bargaining, such as the presence and length of the associated coalition agreement (Klüver et al., 2023; Krauss, 2018), or the strength of the legislative committee system (Martin and Vanberg, 2020a; Zubek, 2015).

Another approach used to circumvent the opaque nature of coalition governance is to consider the congruence between observable policy outcomes and the policy pledges made either by the coalition as a whole (Zubek and Klüver, 2015), or coalition parties individually (Schermann and Ennser-Jedenastik, 2014; Thomson et al., 2017). This literature establishes that variables such as public salience of a policy area, and the degree of ideological heterogeneity of a cabinet, influence the speed at which pledges are fulfilled (Schermann and Ennser-Jedenastik, 2014; Thomson et al., 2017; Zubek and Klüver, 2015). Moreover, coalition party pledges are more likely to be fulfilled if the party in question is the chief executive (Thomson et al., 2017). These findings, however, still do not shed light on the exact bargaining dynamics which may result in such failure to fulfil electoral pledges yet do hint at its dynamic nature. As indicated by Zubek and Klüver (2015) 'our analysis suggests, though more tentatively, that the odds of pledge fulfilment may not be constant over the legislative term, but rather may fluctuate as governments run into mid-term crises or mobilise before imminent elections' (p.612). These expectations of fluctuations in coalition bargaining are consistent with an existing, dynamic theory of coalition governance stressing the role of party bargaining power.

5.3 Bargaining Power and Exit Threats

The game-theoretical perspective on coalition bargaining was first introduced by Lupia and Strøm in 1995 to explain early coalition terminations and was extended in 2010 to include the dynamics of coalition governance more generally (Lupia and Strøm, 1995, 2010). This theoretical account stipulates that coalition parties carefully weigh off the utility experienced from remaining in government, against the benefits of outside options. These options include joining the opposition, facing the electorate early, or re-forming a coalition with other parties already represented in parliament. If any of a party's outside options are deemed more attractive than incumbency, a coalition party has a strong incentive to cease its government membership. More precisely, Lupia and Strøm (2010) detail how a party's ability to rescind participation in coalition bargaining, without inferring significant costs upon itself, can be referred to as its walk-away value. The more favourable outside options become to a coalition party, the higher their walk-away value.

Yet, prior to resorting to departure, coalition parties are likely to use their favourable outside options to improve their position in the current cabinet by employing merely the threat of an exit. As detailed by Saalfeld (2010): 'A party with high walk-away value may consider seeking a better offer from alternative coalition partners, but it may also eschew the possible transaction costs involved in negotiations with an 'out-party', and convert its credible threat of walking away, into policy and office benefits by renegotiating the existing coalition agreement' (p. 335-6). This rhetoric closely reflects the work by Van Roozendaal (1997) who found that in coalition governance, 'the possibility of using credible exit threats can be seen as a mechanism to induce cooperative behaviour between the cabinets in government' (p.78). As a result, walk-away values are considered equal to a coalition party's bargaining power.

Recently, Kayser et al. (2022) published a measure capturing a coalition party's monthly bargaining power for a large comparative sample. These Coalition Inclusion Probabilities (CIP) are the odds a party will be included in a future coalition, were elections to be called in that instance. The higher the likelihood of inclusion in

future coalitions captured by these scores, the better a party's outside options, and with that the higher their walk-away value. And indeed, using this measure, Kayser and Rehmert (2021) find that the bargaining power of green parties is positively associated with the stringency of environmental policy. The authors conclude that if a party has strong bargaining power, defined by its outside options, it will add credibility to their exit threats. The stronger bargaining power is, the more credible the threat of departure is, and the more leverage a party has in policy negotiations (Kayser and Rehmert, 2021). The game- theoretical perspective on coalition governance, however, stresses that coalition bargaining happens under uncertainty and that bargaining power, or walk-away value, is not always fully evident to all parties participating in the negotiation (Lupia and Strøm, 2010; Winter and Dumont, 2010). In fact, 'a key to bargaining under uncertainty is separating fact from fiction when assessing other parties' walk-away values' (Lupia and Strøm, 2010, p. 67). Thus, merely having bargaining power, therefore, does not make an exit threat credible in and of itself. Yet the notion of credibility is essential for an exit threat to be a successful bargaining strategy. This therefore begs the question, what does make a coalition exit threat credible?

5.4 The Credibility of Coalition Exit Threats

The credibility of an exit threat lies in the perception of the threatening party's bargaining power by the other coalition parties. As stated by Van Roozendaal (1997): 'when a party has clear and viable alternatives to the present government, recognized by all other parties, then this party has a credible exit threat' (p.76). It is this recognition of a coalition partners strategic position which is essential to making an exit threat credible. Yet, coalition negotiations do not occur under perfect information. Instead, coalition parties are likely to 'lack information about what other parties want or what sacrifices they are willing to make' (Lupia and Strøm, 2010, p. 66-67). Thus, whether a party is willing to participate in any of its viable outside options might not be evident to the remaining coalition parties (Winter and Dumont, 2010).

In navigating this uncertain bargaining environment, strong parties are required to prove their power by credibly committing to an exit threat (Lupia and Strøm, 2010; Roozendaal, 1997). Examples of such credible commitment to an exit threat include party leaders tying their resignation to the passing of a legislative bill (Lupia and Strøm, 2010), or chief executive coalition parties tying a policy proposal to a vote of no confidence (Becher and Christiansen, 2015; Schleiter and Evans, 2021). These examples show that strong parties strategically use public fora during bargaining as a way to assert or prove bargaining power. Andeweg and Timmermans (2010) state that 'a party that has viable alternatives to this particular coalition may have little interest in keeping conflicts within the cabinet' (p.279). Nevertheless, the aforementioned displays of power are sweeping, and as a result, not observed very frequently. As such, they are unlikely to manage the bargaining associated with a coalition's day-to-day operations.

Displays of power can, nevertheless, also occur at a smaller scale, such as a party making public promises which would be costly to contradict at a later stage (Lupia and Strøm, 2010). Laver (2021), for instance, states that 'reading a position into the official record implies accepting a higher degree of public accountability for the stated position than statements made in more informal channels' (p.24). Such publicly presented positions or preferences are inherent deviations from a coalitional united front. The choice to publicly defend a party line instead of a coalition consensus is referred to as coalition party differentiation (Boston and Bullock, 2010; Fortunato, 2019b). Traditionally, differentiation has been seen as a campaigning behaviour (Martin and Vanberg, 2008; Sagarzazu and Klüver, 2017). More precisely, differentiating in public forms of communication, such as parliamentary speech or press releases, establishes a distinct party identity in time for facing the electorate. In the first article, presented in Chapter 3 of this thesis, I find, however, that differentiation in parliamentary speech is not merely displayed in anticipation of upcoming elections. On the contrary, this behaviour fluctuates for all coalition parties throughout their incumbency.

Building on this finding, Chapter 4 of this doctoral thesis finds that, when endowed with strong bargaining power, coalition parties will display more distinct behaviour in parliamentary speech. I argue that this is the case, since a party's strong walk-away value means they are not as inconvenienced by the increased risk of gridlock, or even pre-term termination, which differentiation introduces. More precisely, in order for a coalition to govern effectively, unity is required. As such, differentiation is antithetical to coalition policy making and can, therefore, be considered a form of obstruction (Boston and Bullock, 2010). Such costly obstruction may indeed be for the purpose of establishing a distinct party brand in the eyes of the electorate. Yet, obstruction is also known to 'be driven solely by rational bargaining motivations' (Patty, 2016, p. 176). A coalition party may intentionally halt policy making to display its bargaining power to the remaining parties in government. In this manner, public differentiation can be considered a type of credible commitment to a privately made exit threat. Coalition party obstruction signals to the remaining coalition parties that a party is willing and able to exit the coalition and face outside options, were certain concessions not made.

It should be noted, however, that how effective an exit threat is, is not only a function of recognised bargaining power, but also of cabinet type. Whether a coalition holds a majority in parliament, and what this majority looks like, has long been established to influence coalition policy making (Angelova et al., 2018; Dodd, 1976; Oktay, 2022; Riker, 1962). This is not merely because a majority is required to pass legislation, but also because the majority status of a cabinet influences the bargaining environment within the cabinet itself. With regards to exit threats, Van Roozendaal (1997, p.76) emphasises that 'the threat may be stronger if the potential departure of the party reduces the government from a majority government to a minority government, as this will lead in many cases, albeit not necessarily in all cases, to a premature termination of the government.' As a result, coalition exit threats are only likely to be effective bargaining strategies in majority cabinets. The resulting hypothesis to be tested in this chapter is:

H: Coalition parties employ public differentiation to signal bargaining power in policy negotiations.

This hypothesis stresses that merely having bargaining power is not sufficient. Instead, it is the behaviour displayed in combination with bargaining power which adds credibility to potential exit threats. Once an exit threat is credible, it is more likely to be a successful bargaining strategy.

5.5 Data and Method

To assess the interplay of bargaining power and differentiating behaviour in coalition bargaining, the analysis in this paper uses the replication data of Angelova et al. (2018). Angelova et al. (2018) consider the influence of veto players in policy-making processes resulting in reforms to economic policy. As part of this project the authors generate a measure of reforms in several Western European countries, by coding policy details from reports by The Economist Intelligence Unit (EIU) and the Organisation for Economic Co-operation and Development (OECD). The resulting measure counts the number of passed and implemented reforms in social welfare, labour market, economy, and taxation policy per year. This therefore captures legislative activity and output in this area, whilst disregarding the direction and ideological content of reforms. The subsequent analysis employs this measure of economic policy output as the outcome variable too. This implies that the units of analysis are cabinet-year observations. In order to make inferences about party behaviour, the values of the independent variables are solely those of the chief executive party. Although this outcome variable does not discriminate between coalition parties, the number of reforms is deemed a good reflection of the policy payoffs enjoyed by the chief executive, since these coalition parties are able to pass legislation more frequently than their junior counterparts (Thomson et al., 2017).[1] The values are only selected from cabinets with majority status, thereby conflating observations from minimal winning and surplus majority cabinets. The

[1]This assumption is tested in Appendix C.1 where the effect of the average bargaining power and differentiation behaviour by junior coalition parties on number of reforms is assessed instead.

credibility of exit threats from junior coalitions may fluctuate between these types of majority cabinets, considering smaller coalition parties are likely only veto players in minimal winning coalitions (Tsebelis, 2002). In contrast, the threats of chief executive parties remain credible regardless, considering their departure will upturn and possibly dissolve any majority cabinet. When considering the data availability, this results in 40 observations, from 12 majority cabinets, across four West European countries: Austria, Germany, Ireland, and The Netherlands. Appendix C.2 runs the subsequent analysis on a larger sample also including minority cabinets. By adding minority cabinets from Denmark and Sweden, this increases the sample to 56 observations, 17 cabinets, and six countries.

5.5.1 Independent Variables

The two main independent variables in the analysis are a party's bargaining power and coalition party differentiation. Bargaining power is captured by CIP scores (Kayser et al., 2022). In constructing this measure, the authors consider monthly poll performance in addition to a number of other variables likely to influence coalition inclusion, such as seat share, majority status, and the ideological diversity of a possible cabinet configuration. Based on these predictors, a probability of a party being included in every single possible cabinet configuration is calculated. These probabilities are then averaged, resulting in monthly CIP scores per party. To match the level of the outcome variable, these monthly party scores of the chief executive coalition party are aggregated and averaged per calendar year, resulting in a single CIP value per year for that respective party.[2] A chief executive party with a high annual CIP indicates that it enjoyed, on average, a strong strategic position throughout the year. In contrast, a low averaged annual CIP reflects a party held a weak bargaining position instead.

As introduced in Chapter 3 of this doctoral thesis, the measure of differentiation is a party-month measure of differentiation in parliamentary speech. Legislative speech can be considered a low-threshold avenue for differentiation, which coalition

[2]This is the same configuration of the monthly scores as used by Kayser and Rehmert (2021).

parties can engage with to an equal degree. As a consequence, information regarding differentiation in speech is readily available and dynamically observable. The scores in question are generated using a supervised machine classification of parliamentary speech and indicate the extent to which a coalition party is choosing to represent a coalitional united front or opting for distinct party line instead. Similarly to CIP, these scores are averaged across all months in a year for the chief executive party, resulting in an average annual score of differentiation. A high value indicates the party consistently prioritised its party line over coalition consensus, whereas a low value signifies the party chose to publicly assimilate with its coalition partners during that respective year. This variable thus indicates the extent to which a coalition government experiences, on average, obstructive behaviour by the chief executive party in parliament.

Neither the CIP nor differentiation scores are conditional upon the area of policy. The outcome variable, however, only pertains to reforms made to economic policy. Using these two independent variables in this manner, therefore, assumes that all chief executive parties in the sample have economic policy as a sufficiently salient policy area. This means that when empowered, these parties will seek to make changes to existing economic policy. Additionally, both the annual CIP and differentiation are lagged by one year to account for the duration of the legislative process and thus to ensure the correct temporal order of bargaining preceding reforms which have passed successfully. Thus, the numbers of reforms are regressed on the values of the independent variables of one year previously. Since the hypothesis of this chapter stressed the interplay between bargaining power and differentiation, the model below will include an interaction term of these two independent variables.

5.5.2 Control Variables

The control variables included in the models below are largely taken from the replication data of Angelova et al. (2018). This includes a variable indicating the ideological distance between the two most extreme parties in the cabinet. These

Table 5.1: Descriptive Statistics for all Variables Included in the Analysis.

Variable	Mean	SD	Min	Max
Number of Reforms	19.343	9.813	2	50
Differentiation (Chief Executive)	0.388	0.063	0.228	0.510
Differentiation (Junior)	0.220	0.156	-0.262	0.503
CIP (Junior)	1.779	1.112	0	3.740
CIP (Chief Executive)	3.081	1.288	0.808	5.961
Ideological Range	1.827	1.216	0.0658	4.548
Recession	0.086	0.282	0	1
Job Crisis	0.071	0.259	0	1
Alternation	0.836	0.539	0.052	2.010
Number of Parties	2.286	0.542	2	4
Fraction of Days in Office	0.909	0.172	0.131	1
Election Year	0.286	0.455	0	1

positions are calculated with logarithmic scaling as suggested by Lowe et al. (2011) on the basis of manifesto data (Burst et al., 2021). The larger this distance, the more polarised a coalition cabinet is, and hence the more strained one can expect bargaining to be. To signify the need for reform to economic policy a chief executive party might experience, a variable of ideological alternation is included. This is the difference between the position of the current cabinet, weighted according to each party's number of seats, compared to the position of the previous cabinet. The larger this value, the more ideologically distinct subsequent cabinets are, and therefore the stronger the need of the current coalition to change the status quo. This, therefore, assumes the status quo reflects the policy positions of the previous cabinet.

Additional control variables are included indicating whether an election is held in a year, since cabinets are expected to pass fewer reforms when occupied with campaigning, as well as a variable indicating the share of the year that a cabinet was in office (Fraction of Days).[3] Two dummy variables are included indicating whether a year is characterised by a recession (Recession) or an unemployment crisis

[3]The original analysis by Angelova et al. (2018) also includes a control variable for the number of years until elections. Since this duplicates the variation found in Election Year and Fraction of Days, it has been excluded.

(Job Crisis). One would expect more reforms when cabinets experience external pressures such as recessions or unemployment crises. A year is marked as a recession year when growth in annual gross domestic product (GDP) is negative, and an unemployment crisis is indicated by an unemployment rate higher than 11.6 per cent (Angelova et al., 2018). Finally, the number of parties in the coalition is included, since larger coalitions are associated with more complex bargaining environments (Warwick, 1994). Descriptive statistics for all variables in the subsequent analysis can be found in Table 5.1.

5.6 Analysis

To investigate the role of bargaining power and differentiation on policy output, the variables specified above are included in negative binomial regression models. These models employ maximum likelihood estimation and accommodate the count outcome variable, whilst additionally allowing the conditional variance to differ from the conditional mean (Long, 1997). This method, therefore, accounts for the overdispersion of the dependent variable.[4] It should be noted that the chosen measure for differentiation introduces country-level heterogeneity, as the measure does not control for country specific variables affecting differentiation in parliamentary speech, such as linguistic features and parliamentary speech rules. To control for these time-invariant country-level factors, all models below are run with country fixed effects.[5] Moreover, since the years within countries are unlikely to be independent of each other, robust standard errors clustered by country are calculated for each coefficient. Table 5.2 reports the results of these multivariate models predicting the number of reforms in economic policy.

In models one and two of Table 5.2 the measures of CIP and differentiation are included in isolation. The third model includes both, and the fourth includes an interaction term between CIP and differentiation. Finally, model five investigates

[4]Overdispersion is established at the hand of the test developed by Cameron and Trivedi (1990).

[5]This also accounts for country-specific confounders such as variations in the institutional power of executive parties.

Table 5.2: Negative Binomial Regression Analysis of Economic Reform Productivity with Country Fixed Effects and Country-Clustered Standard Errors.

	Dependent variable:				
	Number of Reforms				
	(1)	(2)	(3)	(4)	(5)
Differentiation $_{t-1}$	3.645		3.933	−6.811	−6.416
	(2.334)		(2.453)	(4.949)	(4.834)
CIP $_{t-1}$		0.065	0.085	−1.318**	−1.166**
		(0.062)	(0.067)	(0.646)	(0.572)
Differentiation $_{t-1}$ * CIP $_{t-1}$				3.730**	3.295**
				(1.709)	(1.457)
Ideological Range					0.061
					(0.118)
Recession					0.252
					(0.202)
Job Crisis					0.125
					(0.378)
Alternation					0.239
					(0.207)
Number of Parties					−0.155
					(0.307)
Fraction of Days					0.485
					(0.767)
Election Year					−0.423**
					(0.185)
Intercept	1.316	2.749***	1.051	5.360***	4.998*
	(0.990)	(0.191)	(1.082)	(1.969)	(2.624)
Country Fixed Effects	Yes	Yes	Yes	Yes	Yes
Number of Countries	4	4	4	4	4
Observations	40	40	40	40	40
R2	0.112	0.073	0.128	0.199	0.426
Log Likelihood	−142	−143	−141	−140	−133
AIC	294	296	296	294	292
Note:					*p<0.1; **p<0.05; ***p<0.01

how robust this interaction is to the inclusion of the control variables. In isolation, the effect of CIP and differentiation on the number of reforms passed by a coalition cabinet is insignificant. This indicates that merely having bargaining power is not sufficient to affect policy change, nor is differentiating by itself. Instead, it is the interaction between these two variables, included in model four and five, which unveils an interesting pattern. This coefficient is significant at a p-value of 0.05 in both models, and thus robust to the inclusion of control variables. To aid interpretation, this interaction between CIP and differentiation, as modelled in model five of Table 5.2, is plotted in Figure 5.1. This plot displays the fitted values of the outcome variable, number of reforms, on the y-axes, and the values of CIP on the x-axes. The two plotted lines correspond with high and low levels of differentiation.[6]

This plot shows that for chief executive parties which enjoy a strong annual bargaining position, increasing differentiation in parliamentary speech is positively associated with the number of reform measures passed. Yet when similar high levels of differentiating behaviour is displayed by weak chief executive parties, this is associated with a decrease in the number of reforms instead. What this indicates is that without sufficient bargaining power, differentiating behaviour is counterproductive to policy making. In contrast, when a party is empowered, the same behaviour results in more policy passing instead.

In concrete terms, this implies that for parties with the lowest CIP in the sample, increasing differentiation from its minimum to its maximum results in 15 fewer passed reforms. Yet, for parties with the highest CIP in the sample, increasing their differentiation in parliamentary speech is associated with an increase of 36 reforms. Keeping in mind that the average number of annual economic reforms in the sample is 19, this is a very sizable effect. Merely having favourable bargaining power is thus not sufficient to acquire bargaining outcomes. Instead, it is the interaction between bargaining power and displays of that power, in this case through public differentiation, which results in obtaining policy payoffs.

[6]High differentiation is the maximum value found in the sample of majority cabinets, and low differentiation is the minimum value.

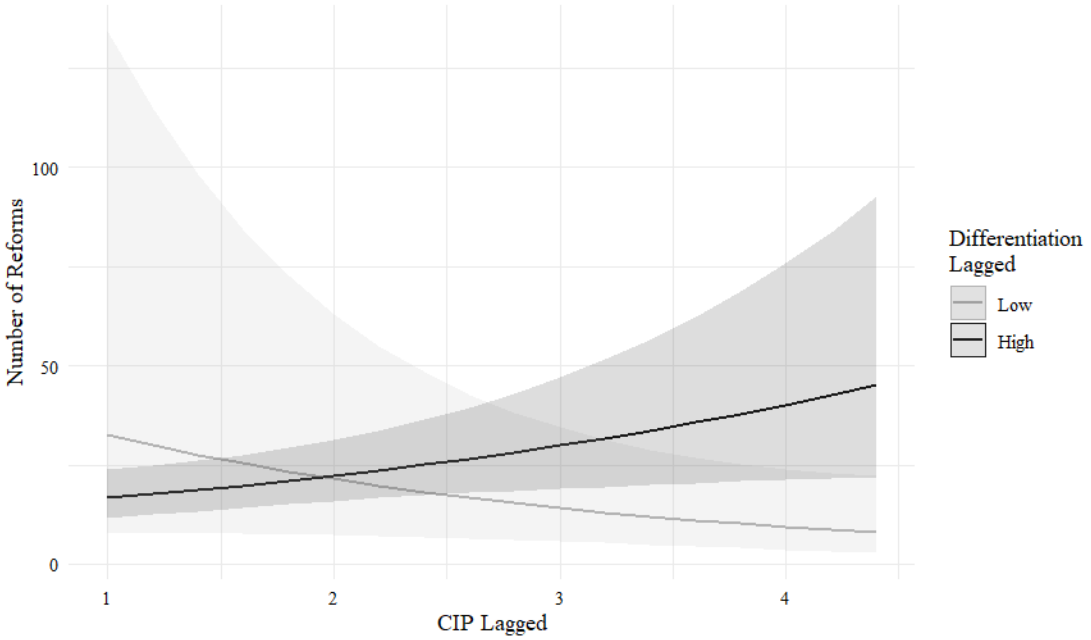


Figure 5.1: Interaction of Chief Executive Differentiation and CIP in Their Effect on the Predicted Number of Reforms.

The number of reforms to economic policy may, in part, also reflect reforms fought for by the junior coalition parties instead. Yet, previous research has shown the majority of coalition policy successes can be attributed to the chief executive party (Thomson et al., 2017). As such, this measure of quantity is unlikely to consistently capture the less frequent policy successes by junior coalition parties. This supposition is further corroborated by Appendix C.1, which reports the absence of results generated by an analysis including, instead, the values of the independent variables for junior coalition parties[7]. An additional assumption made in this analysis is that the effectiveness of exit threats and obstruction as a bargaining strategy is contingent on the type of cabinet. If a coalition does not have a majority to begin with, such a threat will not hold the same weight as it does in a majority coalition (Roozendaal, 1997). To investigate this assumption, Appendix C.2 runs the same analysis on a larger sample including minority cabinets.[8] In this larger

[7]In coalitions comprised of more than two parties, this constitutes the party with the smallest seat share in parliament.

[8]No separate analysis is run on only minority cabinets since there are only 16 cabinet-year observations for minority cabinets.

sample, the interaction between lagged CIP and differentiation is not significant on its own. Instead, it is only the triple interaction between CIP, differentiation, and majority status which is. This indicates that the effect found in table 5.2 is contingent on majority status.

Finally, it should be noted that coalition policy making is not always conflicted. The parties joined together in office can also agree on the policy change required. Such agreement may stem from shared or similar ideological preferences between parties (Greene, 2017), or result from parties honouring a previously established coalition agreement (M. Bergman et al., 2024). In such instances one would not expect any incumbency bargaining to occur, and as a result there is no incentive for parties to employ differentiation as a bargaining strategy. In this analysis the sample is too small to investigate how the interaction effect of CIP and bargaining power on the number of reforms may change if one solely selects cabinets known to be more prone to incumbency bargaining. Instead, I assume that differentiation is commonly employed as a bargaining strategy when negotiating reforms to economic policy. This assumption is reinforced by the fact that economic policy is likely to be a salient policy area for all coalition parties (Saalfeld, 2013), and salience increases the propensity for incumbency bargaining (Schermann and Ennser-Jedenastik, 2014; Thomson et al., 2017). Since an effect was found even when aggregating cabinets of different conflictual nature, this does suggest differentiation is employed with relative frequency during coalition negotiations in this policy area. Nevertheless, future research should asses whether the findings of this analysis change depending on the extent a coalition is expected to bargain during incumbency. For instance, by comparing the effect found amongst cabinets with and without a coalition agreement, or between cabinets with and without ideological differences in the policy area to which the reforms pertain. Evidence that the interaction effect is stronger for parties in cabinets more prone to incumbency bargaining would reinforce the notion that differentiation is used as a bargaining strategy.

5.7 Conclusion

At the heart of coalition governance, lies bargaining. Any governance outcome generated by coalitions is the result of a careful negotiation. Since these interactions occur almost exclusively behind closed doors, the study of coalition governance has been limited in how far it can shed light on the precise mechanics of these processes. Recent efforts have identified the role of bargaining power in coalition policy negotiations, with strong parties being more likely to obtain their preferred policy outcome. This perspective, however, does not detail how bargaining power translates into policy outcomes, beyond merely a party's ability to make an exit threat. Since coalition bargaining occurs in a state of uncertainty, exit threats are only likely to affect the bargaining outcome if the remaining coalition parties consider them credible. The theory presented in this chapter states that coalition differentiation in parliamentary speech is a means for coalition parties to display their power publicly, and thereby add credibility to potential exit threats. By failing to present coalitional unity in parliament, and, instead defending distinct party preferences, coalition parties display behaviour which is obstructive to policy making in and of itself. This signals to the coalition partners that the differentiating party is willing and able to depart if concessions are not made.

The subsequent analysis finds that, indeed, the interaction between bargaining power and differentiation is significant. For chief executive parties of majority coalition governments, with strong bargaining power, differentiating is associated with an increase in policy output, in the form of economic reforms. Yet in contrast, for chief executive parties with weak strategic positions, the same level of differentiating is associated with a decrease in policy output. Thus, in the absence of bargaining power, differentiation is merely an obstructive behaviour, yet, when paired with bargaining power, it becomes an effective bargaining strategy. Establishing differentiation as a bargaining strategy marks a clear departure from existing theoretical accounts of differentiation as a campaigning behaviour.

This finding contributes to the overall literature on coalition bargaining and policy making, by stressing that coalition bargaining is not fully completed behind

closed doors. Prior work discussing coalition bargaining for the purpose of policy making often assumed that this process was completed in secrecy, prior to a bill even being introduced to parliament. Zubek and Klüver (2015) for instance state 'we assume that before introduction to parliament, bills are thoroughly vetted by all coalition parties; any policy conflicts are resolved; and relevant adjustments are made to the proposals' (p. 605). Fortunato (2021) makes a similar assumption when setting out the Popularity Correcting Response (PCR) theory of differentiation, which presumes that coalition bargaining is completed prior to a bill entering the legislature. By making this assumption, research has overlooked how details of the legislative procedure itself can shed light on the black box of coalition bargaining. The findings of this chapter suggest that private coalition bargaining does in fact bleed into publicly observable parliamentary procedures, as parties seek to add credibility to an exit threat by differentiating in parliamentary speech. The analysis in this paper, however, is not able to link party behaviour to specific legislative bills. As a result, the subsequent findings do not clarify whether parties employ this strategy to influence the bill at the heart of the relevant parliamentary debate. Or, alternatively, whether differentiation is a general signalling behaviour intended to influence private coalition negotiations and therefore does not pertain to the subject matter of the debate during which differentiation occurs. The exact order of events could therefore be a subject for future research.

Additionally, some details with regards to party-level behaviour and decision making during coalition bargaining remain ambiguous. For instance, it remains unclear whether a policy area is moved closer to the preferred ideal position of the chief executive coalition party as a result of these reforms. Similarly, the variability of policy salience is also not included in the analysis. As mentioned previously, the analysis rests on the assumption that all chief executive parties hold economic policy equally salient. And, as a result, will seek to reform this policy area when adequately empowered to do so. In practice, however, this is bound to vary between parties and across time. As the literature on pledge fulfilment stresses, whether something is worth bargaining over is a function of salience (Schermann and Ennser-Jedenastik,

2014; Thomson et al., 2017; Zubek and Klüver, 2015). It thus remains possible that having bargaining power, does not immediately imply it is always employed. Instead, this is likely to be a function of salience, diverging policy preferences amongst coalition parties, and the extent control mechanisms restrict bargaining during incumbency. The finding that strategic interaction between bargaining power and differentiating behaviour result in more policy output is, indeed, a significant step towards understanding the secretive processes behind coalition governance. Yet, future research can still uncover more aspects of individual party behaviour in these processes, for instance by elucidating the role of cabinet policy disagreements and salience in driving differentiating behaviour.

I do not say this, that I think there should be no difference of opinion in conversation [...] 'tis not the owning one's dissent from another, that I speak against, but the manner of doing it.

— John Locke (1772)

6 Conclusion

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6.1 Main Argument and Contributions

As has been emphasised on numerous occasions throughout this doctoral thesis, coalition governance is an inherently opaque interaction between the political parties in office. Therefore, despite generating a significant part of democratic outcomes, little is known about the exact process. Instead, existing approaches have circumvented this blind spot in the coalition life cycle by inferring its nature from the other stages. For instance, by considering how the presence of institutions, such as coalition agreements, affect governance outcomes (M. Bergman et al., 2024;

Klüver et al., 2023), or how static government characteristics, such as the number of parties, affect its duration (Greene, 2017; Warwick, 1994). This existing body of work has, therefore, constructed a solid foundation of general expectations regarding coalition governance. What such inferences fail to do, however, is to identify and explore individual coalition party behaviour. As a result, little can be said with regards to the influence of dynamic choices made by individual parties on observed outcomes. Such a shortcoming is especially remarkable if one considers that detailed existing theoretical accounts of coalition governance emphasise the importance of an individual party's decision making on coalition policy or even termination. Consequently, the research question at the heart of this thesis is:

> *How can the behaviour of coalition parties in the secretive processes of coalition governance be measured and studied dynamically?*

To address this gap and answer the research question, this thesis undertakes two distinct aims: capturing coalition party behaviour whilst in office systematically and for a sizable comparative sample, and subsequently, studying this measurement to understand what implications the behaviour has for coalition governance. On the basis of a thorough literature review, I conclude that the manner in which a coalition party chooses to present itself to an external audience, and especially how such a presentation compares to that of its coalition partners, is a widely observable and informative behaviour. Such coalition differentiation behaviour indicates the extent to which a coalition party is presenting a united front with its coalition partners, or whether a party is instead consciously emphasising its own distinct identity. Especially since differentiation is considered to be mutually exclusive to effective coalition policy making, capturing such behaviour can shed light on coalition governance itself.

Coalition differentiation has thus far been established in a number of outward facing media, such as amendments to legislative proposals (Fortunato, 2019b), or party press releases (Sagarzazu and Klüver, 2017). All these attempts, however, have been restricted to a single country due to the intensive nature of coding, associated with existing measures of differentiation. As a result, these studies

fail to analyse this particular party behaviour across different polities. The first article of this thesis, presented in Chapter 3, addresses this absence by presenting a novel and comparative measure of differentiation in legislative speech. Through a machine learning classification pipeline, a vast amount of speech data is processed in a fast and efficient manner. For a sample of ten European countries, and over 65 coalition cabinets, a supervised classifier is trained to recognise the party label of a legislative speech. The resulting performance metric, or the accuracy of this classification task, is then interpreted as a measure of differentiation: the easier it is to distinguish a party's speech from those of its partners, the more dissimilar this party is speaking. In contrast, when parties are confused with one another in the classification, it is likely that the coalition is presenting a united front. The resulting comparative dataset of coalition differentiation of over 4,000 monthly party scores is then subjected to extensive post-hoc validation exercises. The validation tests establish that the variation is consistent with prior expectations and that this measure consistently captures coalition differentiation.

By establishing legislative debate as an avenue for coalition party differentiation, this article addresses a shortcoming stressed by Slapin and Proksch (2021), who state that 'while there have been significant advances in the work on coalition dynamics and policy-making in recent years, very little work has focused on parliamentary debate and its role in representation in coalition governments' (p. 44). It should also be noted that previous work has questioned the ability of coalition parties to differentiate in legislative debate since 'speeches are constrained by procedural parliamentary rules and are therefore a problematic data source for measuring political communication' (Sagarzazu and Klüver, 2017, p. 334). These authors, however, only consider variation in the policy area emphasis in communication as the source of differentiation. With this definition of differentiation, limitations in agenda setting power would naturally limit a party's ability to differentiate from their partners. In this thesis, however, the concept of differentiation is broadened to include any linguistic variation. This, thus, includes differently expressed stances on the same topic. Such a broader definition of differentiation does not only allow

for the measurement of more fine-grained differentiation, it also re-establishes parliamentary debate as an arena for coalition differentiation.

At the hand of the dynamic measure of differentiation presented in the first article, the second article presented in Chapter 4 closely considers theoretical accounts of coalition differentiation. Existing theories of differentiation believe it to be a signalling behaviour intended for the electorate. As a result, differentiation is thought to prevail over a coalitional united front when parties have an incentive to re-establish their distinct party identity in the eyes of the electorate. This is either a response to waning popularity in the polls, or in anticipation of upcoming elections. In doing so, these theories assume that such a tool is available to all parties equally and that they are free to differentiate at their own discretion. In practice, however, such freedom to disregard public coalitional unity is unlikely. Instead, the second article of this doctoral thesis emphasises that coalition differentiation is an obstructive behaviour which will reduce the effectiveness of coalition policy making. Due to this obstructive nature, it is expected that only the parties with favourable outside options, and therefore a strong bargaining position, would be willing and able to risk the effectiveness and stability of the government. Using the dynamic measure of differentiation, as well as a novel measure of coalition party bargaining power, the analysis in the second article confirms that an increase in bargaining power is closely followed by an increase in differentiating behaviour. This is contradictory to the theoretical expectation that weak, poorly performing parties can boost their popularity through differentiation. Instead, this tool is seemingly only available to already empowered coalition parties. This varying degree to which coalition parties are able to manage their public image through differentiation in parliamentary speech could possibly explain the established finding that junior coalition parties experience a larger electoral penalty for compromises made during governance than their chief executive counterparts do (Hjermitslev, 2020; Johnson and Middleton, 2016).

Based on the findings from these two articles, it is not yet evident how coalition party differentiation behaviour relates to coalition governance. Thus, to complement

the previous two articles, the third and final article presented in Chapter 5 establishes the role of differentiation behaviour in coalition bargaining. Such bargaining for governance outcomes is largely determined by the bargaining power of individual coalition members, and specifically the use of this power to threaten departure from the government, were certain concession not made. Yet, coalition governance is characterised by uncertainty. This implies that the participating parties are not fully aware of each other's bargaining power, and therefore struggle to assess the legitimacy of such an exit threat. The third article hypothesises that, in navigating such uncertainty, coalition parties will use differentiation as a public display of power to add credibility to potential exit threats. By linking both the bargaining power and differentiation behaviour of chief executive parties, with the number of reforms made to economic policy in a year, the associated analysis finds that bargaining power alone has no effect on this outcome. Instead, it is the combination of bargaining power and differentiation, which is associated with an increase in reforms. This reinforces the expectation that for bargaining power to translate into an effective exit threat, such power needs to be displayed and thereby recognised by the remaining coalition parties. These findings thus establish that differentiation is not merely a tool to establish distinct party labels by signalling outwards. Rather, it is also used to signal back to the remaining coalition parties itself in order to influence coalition governance.

Altogether, these three articles answer the research question at the heart of this doctoral thesis by stressing the function of coalition differentiation in coalition governance. Coalition party differentiation behaviour can be captured monthly, per party, by measuring subtle differences and similarities in legislative speech. Using the resulting measurement, subsequent analyses identify that this behaviour provides information regarding the less visible parts of coalition governance. More precisely, I find that coalition parties use public fora such as legislative speech, to divert from a coalitional united front, as a display of bargaining power. These displays of power add credibility to the exit threats the differentiating party may employ during coalition incumbency bargaining.

6.2 Limitations

Having identified the findings of each article presented in this doctoral thesis, it is important to briefly reiterate the limitations associated with this particular measure of coalition differentiation. First and foremost, controlling for all country-specific variables influencing differences in legislative speech is extremely challenging when employing supervised classification of such data. This is the case, since this does not only concern linguistic differences, but also variations in cultural practices and parliamentary speech rules. Whereas the former can be kept constant using specific computational text analysis strategies, such as feature selection or machine translation, the latter is much more challenging to account for. Thus, as a result this measure can only be used to compare within country variation and cannot provide any insights into how this party behaviour might vary across countries. Secondly, this approach is aggregating all linguistic patterns which may cause variation in word occurrence, whether, for instance, that is speaking on different topics, or speaking differently on the same topic. As a result, there is no definitive way of identifying what constitutes differences and which kind of differences are behind the patterns observed in the measure. Instead, I make the assumption that any difference in speech between coalition parties is equally informative for this purpose. Finally, closer inspection of this measure, as reported on in Appendix A.4, finds that these differentiation scores are not able to capture centralised party behaviour in the absence of legislative discipline amongst party leadership. For instance, leaders of populist parties with no governance experience tend to behave so differently in parliament speech, compared to those of more established parties, that the resulting scores do not resemble the extent to which a party is moving further away from its coalition partners. Instead, it is more likely to capture the heterogeneity of speech within the party faction itself. This limitation needs to be stressed especially since the inclusion of populist parties in coalition governments is becoming a more commonplace practice.

6.3 Possible Extensions

6.3.1 Testing Assumptions

The work presented in this thesis can be extended in numerous ways. First and foremost, this pertains to the testing of a number of core assumptions made throughout the project. For instance, the main argument of this thesis is that coalition differentiation tells us something about coalition governance. This conclusion rests on the assumption that differentiation and coalition effectiveness are mutually exclusive. Nevertheless, the presumption that a coalition needs to publicly unite in order to be effective has not been extensively studied. The findings from the third article do indicate that without sufficient bargaining power, differentiation by chief executive parties has a negative effect on the reform productivity. This result is, however, based a relatively small sample. As such, future research should aim to find more conclusive evidence that differentiation is inherently antithetical to policy making, and thereby establish that it is indeed an obstructive behaviour, as argued in this thesis.

A second opportunity for future work concerns the assumption that coalition parties act as monoliths in parliament. As detailed in the first article, the measurement of differentiation presented in this thesis conflates the behaviour displayed by members of parliament (MPs) and cabinet ministers. This ignores the fact that 'although coalition politics is acted out through parties, it is far from irrelevant what goes on within these organizations' (Müller and Strøm, 2000, p. 4). Especially since there is reason to believe that members of parliament and ministers may have varying incentives to differentiate, future research could investigate to what extent parties are coherent in displaying this behaviour. An example of which could be assessing the performance of this measure in polities where there is an incentive for MPs to cultivate a personal vote, and therefore, differentiate.

A final example of an assumption made in this thesis is that institutions are static within the fixed effects employed. Although this is reasonable assumption to make, it does disregard how institutions affect differentiation itself. There is

good reason to believe that differentiation in speech is affected by parliamentary speech rules, as this is likely to mediate the extent to which this tool is available for parties to use. Additionally, coalition bargaining itself it also strongly influenced by a number of parliamentary control mechanisms such as committee systems (Martin and Vanberg, 2020a; Zubek, 2015). Considering the small sample of the third article, the effect of institutions, such as coalition agreements, on differentiation as a bargaining strategy could not be further assessed. Possible extensions of this work can, therefore, consider how institutions affect differentiation behaviour and influence the extent to which this behaviour is used in coalition bargaining.

6.3.2 Expanding the Scope

Another category of possible extensions of this project pertains to expanding the scope of research. For instance, this thesis only considers differentiation in parliamentary speech, yet this behaviour can also occur through other public facing avenues of communication such as legislative amendments (Fortunato, 2019b, 2021) and press releases (Sagarzazu and Klüver, 2017). Future research can assess whether the degree of differentiation a party displays is consistent across such outlets. In cases where it is not, it would be interesting to explore whether the purpose of differentiation changes as the audience does. For example, differentiation through press releases is not as directly perceived by other parties as differentiation in speech is. This may imply that presenting distinct party identities in press releases is not directly intended to influence coalition bargaining itself.

Another avenue for further research is the timing of differentiation. Based on the work conducted in this thesis, one cannot deduce at what stage of the policy making process differentiation is employed. More precisely, it remains unclear whether the obstructive behaviour in parliamentary speech pertains to the legislative agenda, thus regarding the bill debated in parliament at that moment, or if it, instead, is intended for private negotiations between cabinet parties on bills yet to be submitted. Future work can assess the temporal order of events by, for instance, comparing

differentiation patterns prior to the submission of a bill, to the differentiation behaviour displayed prior to the parliamentary vote on the same bill.

A final possible expansion of this project is for future work to consider differentiation and the role of the legislative opposition. This thesis solely considers the comparison of differentiating behaviour between coalition parties, thereby disregarding legislative speech behaviour displayed by opposition parties. Yet it remains possible that differentiation is in part intended for the opposition to see as well. A coalition party may, for example, express itself similarly to opposition parties, to signal willingness to cooperate with those parties in a future coalition configuration. Future work can, therefore, consider including opposition speeches in the classification pipeline as well, to investigate how different, or similar, coalition parties are speaking when compared to the opposition.

6.4 Implication for Existing Literatures

The main way this thesis is likely to affect the study of coalition governments, is through the measurement itself, especially in combination with the evidence that differentiation is used for bargaining. With such a dynamic monthly measure of coalition party behaviour, a number of assumptions made by a range of literatures, can now be tested empirically and across a sizable comparative sample. The sections below highlight some of these assumptions and thereby indicate the implications of the findings of this thesis with regards to different aspects of the study of coalition governments.

6.4.1 Implications for the Study of Voter Perceptions

The first subliterature of coalition studies for which the implications of this measure are highlighted, is the work pertaining to how the general public perceives coalition parties. First and foremost, this includes the extent party differentiation affects how distinct or favourable a coalition party is considered to be by the electorate. It is generally accepted that coalition parties are electorally penalised for the compromises made during incumbency (Fortunato, 2019a, 2021; Fortunato and

Stevenson, 2013; Klüver and Spoon, 2020). From this, it is directly inferred that coalition parties have an incentive to differentiate in order to minimise such a penalty. And, indeed, Fortunato (Fortunato, 2019a, 2021) does find that parties who are perceived as ideologically similar to their coalition partners display more differentiation than those which are considered distinct. There is little to no evidence, however, indicating that this behaviour actually reduces the incumbency penalty and thus that differentiation by coalition parties is an effective strategy to improve and maintain a distinct public image. With the monthly measure of coalition differentiation in speech, one can investigate, dynamically, the effect this behaviour actually has on a party's popularity. Such research can thereby shed light on the varying degrees coalition parties are electorally penalised for making compromises during coalition governance (Hjermitslev, 2020; Johnson and Middleton, 2016).

A similar thing can be said about the literature on party-level electoral accountability. It is widely established that voters struggle with attributing coalition governance outcomes to the coalition party responsible, whether these outcomes pertain to successes or failures (Fortunato et al., 2021; Plescia, Ecker, and Meyer, 2022; Plescia and Kritzinger, 2022; Plescia, Kritzinger, and Spoon, 2022). Due to the compromises made during coalition governance, it is challenging to ascertain who ought to be held responsible for the resulting outcomes (Powell, 2000). In order to manage this, it is believed coalition parties intentionally engage in public displays of conflict with their partners, since such conflictual behaviour acts as a heuristic for the electorate to accurately attribute outcomes to a specific coalition party (McCubbins and Lupia, 1998; Plescia and Kritzinger, 2022). Existing measures of coalition conflict, however, are often static or limited in their comparative scope. Most often coalition conflict is captured by the number of parties in office (Toshkov et al., 2020; Warwick, 1994), or the distance between their ideological preferences (König et al., 2022; Zubek, 2015). More recently, Plescia and Kritzinger (2022), capture coalition conflict at the hand of news reports for a large comparative sample, yet only at three points in time. As a result, key questions with regards to party-level electoral accountability have yet to be studied dynamically. Since differentiation is a

publicly facing display of conflict, and the measure presented in this doctoral thesis is available for a large comparative and dynamic sample, future work can assess the extent differentiation in parliamentary speech improves the accuracy with which the electorate attributes failures or successes to the correct party. And indirectly, whether coalition parties possibly choose unity or assimilation to their coalition partners, as opposed to differentiation, in order to avoid individual accountability.

6.4.2 Implications for the Study of Coalition Bargaining and Policy Making

In turn, it is the connection between differentiation behaviour and coalition bargaining made in Chapter 5 of this thesis, which enables significant extensions of the existing literature on coalition bargaining and policy making. For instance, much work has considered the nature of representation by coalition governments. This mostly consists of work assessing when and how individual parties are able to enact the promises made during electoral campaigns (Naurin, 2014; Thomson et al., 2017; Vodová, 2021), or research assessing how responsive coalition parties are to changes in public opinion or other external policy shocks (Bernardi, 2020; Goldring et al., 2020; Klüver and Spoon, 2017; Toshkov et al., 2020).

A consensus amongst these publications is that coalition policy is the result of numerous competing forces. Naturally, this includes the preferences and issue ownership of individual parties and the agreed-upon coalition consensus. But it also includes the external demand for policy responsiveness from the general public. Whichever one ends up influencing policy remains somewhat of a mystery. For example, coalition responsiveness to public opinion is considered to be mediated by the extent to which a coalition is conflicted. Klüver and Spoon (2017) find that as conflict over a specific issue increases between coalition parties, a coalition government will be less responsive to public preferences. Yet, in contrast, Toshkov et al. (2020) use the number of parties in a coalition as an indicator of conflict and find 'only weak evidence that the number of coalition partners has a negative effect on policy adoption or that it moderates policy responsiveness' (Toshkov et al., 2020,

p. 344). It, thus, remains unclear how conflictual behaviour between coalition parties affects policy responsiveness, and, if it does impede responsiveness, which preferences will instead be reflected in the resulting policy outcome. Using the measure of coalition differentiation as a dynamic indication of coalition conflict can shed light on the relationship between conflict and responsiveness. Moreover, by considering differentiation behaviour of individual parties, one can deduce which parties are attempting to influence outcomes at specific points in time during the incumbency.

In turn, by dynamically analysing coalition bargaining one can also make inferences with regards to the role of experience and learning in coalition governments. As stated by Müller et al. (2024) 'coalition parties may learn from previous experiences and readopt mechanisms that have worked and abstain from using ones that have proved ineffective. Likewise, system learning may occur so that parties adopt mechanisms that had been used by other parties in office before. [...] yet such dynamics still lack a rigorous analysis' (Müller et al., 2024, p. 19). Similarly, recent work has also emphasised that as incumbency progresses, parties learn more about their coalition partners, and that they adjust policy making strategies accordingly (König et al., 2022). Both these examples highlight how coalition governance dynamics are likely to change over time, as parties gain experience in governing, and get accustomed to each other. Considering the measure of differentiation varies over time, how these changes look can be assessed both within a coalition's time in office, as well as across governments.

6.4.3 Implications for the Study of the Coalition Lifecycle

Finally, it should be recognised that coalition governance is only one phase of the full life cycle of a coalition government (Strøm, Müller, and Bergman, 2010). All phases associated with this life cycle are closely related, 'so that no part of the political process can be understood except in recognition of the events that have gone before it as well as those that are expected to follow' (Strøm, Müller, and Bergman, 2010, p. 404). This implies that by uncovering more of coalition governance, the full cycle and how the phases relate to each other can be studied better as well.

This can be done, for instance, by investigating how coalition formation affects the subsequent governance dynamics. Much research has considered how the institutions designed and implemented at formation stage restrict governance. Yet the majority of such work has only been able to establish how such institutions, such as coalition agreements, affect governance outcomes (M. Bergman et al., 2024; Klüver et al., 2023; Moury, 2012). Much less can be said about how the interaction between coalition parties, whilst in office itself, is changed by the presence of a coalition agreement, or any other form of conflict management implemented at the onset of the incumbency. Using the measure presented in this thesis, future work can, therefore, explore how the formation stage influences the interactions between governing parties during incumbency.

Similarly, there is little to no work investigating how variations in inter-party interactions in office affect the stability of a coalition government. Existing work on coalition duration, instead, tends to consider solely the stabilising effect of static variables, such as the diversity of issues found in electoral manifestos (Greene, 2017), or, again, the presence of a coalition agreement (Krauss, 2018). Since exit or dissolution threats are a key force influencing the dynamics of coalition governance, it is of the essence to understand under which conditions exit threats actually culminate in coalition departure, and thus early termination. Work on the institutional dissolution powers of the chief executive coalition parties has already established that dissolution, and therefore elections, are timed strategically to provide this party with bargaining leverage in subsequent formation negotiations (Schleiter and Bucur, 2024). This, therefore, begs the question, do parties employ similar strategic timing when threatening, or even committing to an exit through differentiation? Exploring the effect of coalition differentiation, and therefore governance dynamics, on future formation negotiations, is especially interesting if one considers that deviant and obstructive behaviours by coalition parties in office, are thought to be punished in subsequent government formation (Fortunato, 2019b; Tavits, 2008). Such behaviours signal that a party may be a disagreeable coalition partner, which can therefore influence the extent other parties are willing to govern together with

this differentiating party. Through the use of the monthly party differentiation scores, one can investigate whether differentiation behaviour in parliamentary speech affects formation negotiations in a favourable, or a destructive manner.

Appendices

A

Appendix of Chapter 3: Unpacking Coalition Governance

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A.1 Research Sample Overview

Table A.1: Overview of Research Sample.

Country	Database	Years	Coalitions	Monthly Scores
Austria	ParlSpeech V2	1996-2018	9	225
Belgium	ParlEE	2014-2018	2	76
Czech Republic	ParlSpeech V2	2002-2016	8	135
Denmark	ParlSpeech V2	1998-2018	9	191
France	ParlEE	2012-2017	8	99
Germany	ParlSpeech V2	1994-2017	7	274
Ireland	Database of Parliamentary Speeches in Ireland	1992-2013	8	217
The Netherlands	ParlSpeech V2	1998-2017	9	211
Norway	Talk of Norway	2001-2016	5	146
Sweden	ParlSpeech V2	1991-2019	4	148

A.2 Classifier Selection and Model Dependency

As part of the classification pipeline, three different classifiers are run on the same data. Since differentiation scores are essentially measuring error, having three classifiers make similar or the same mistakes, yet through different algorithms, results in more robust scores. The three classifiers selected are a multinomial naïve bayes classifier (MNNB), a stochastic gradient descent classifier (SGD)[1], and a logistic regression classifier with a stochastic average descent solver (SAG). All three classifiers are executed used the Python module Scikit Learn (Pedregosa et al., 2011).

The MNNB classifier is a simple and efficient classification algorithm which is robust to irrelevant features and works well on small datasets, meaning it performs well on cabinets of different durations and thus with varying sizes of speech corpora. It does, however, rest on a strong independence assumption that the features are independent from each other, which cannot always be satisfied in text data. The SGD classifier does not have this assumption and moreover is very suitable to deal with high dimensional data, such as text. Nevertheless, due to the stochastic nature of the updates, it does have a slower convergence rate. And finally, the SAG classifier, is more stable than standard stochastic gradient descent as it averages gradients over all previous iterations, which can lead to better convergence behaviour.

If all three of these classifiers find the same latent variable, one can confirm the resulting score is not the result of a specific characteristic of the model itself, thus due to model dependency. It is thus important to establish whether each classifier is indeed measuring similar variation. Figure A.1 displays the differentiation scores for all countries in the sample, generated by each of the classifiers. As seen in Table A.2, for the full sample, the Pearson's R correlation coefficients for each classifier combination are high and significant.[2]

[1]This is run with a specified loss-function 'hinge', which results in fitting a linear SVM classifier with SGD training.

[2]The significant correlation coefficient persists for every country's scores in isolation as well.

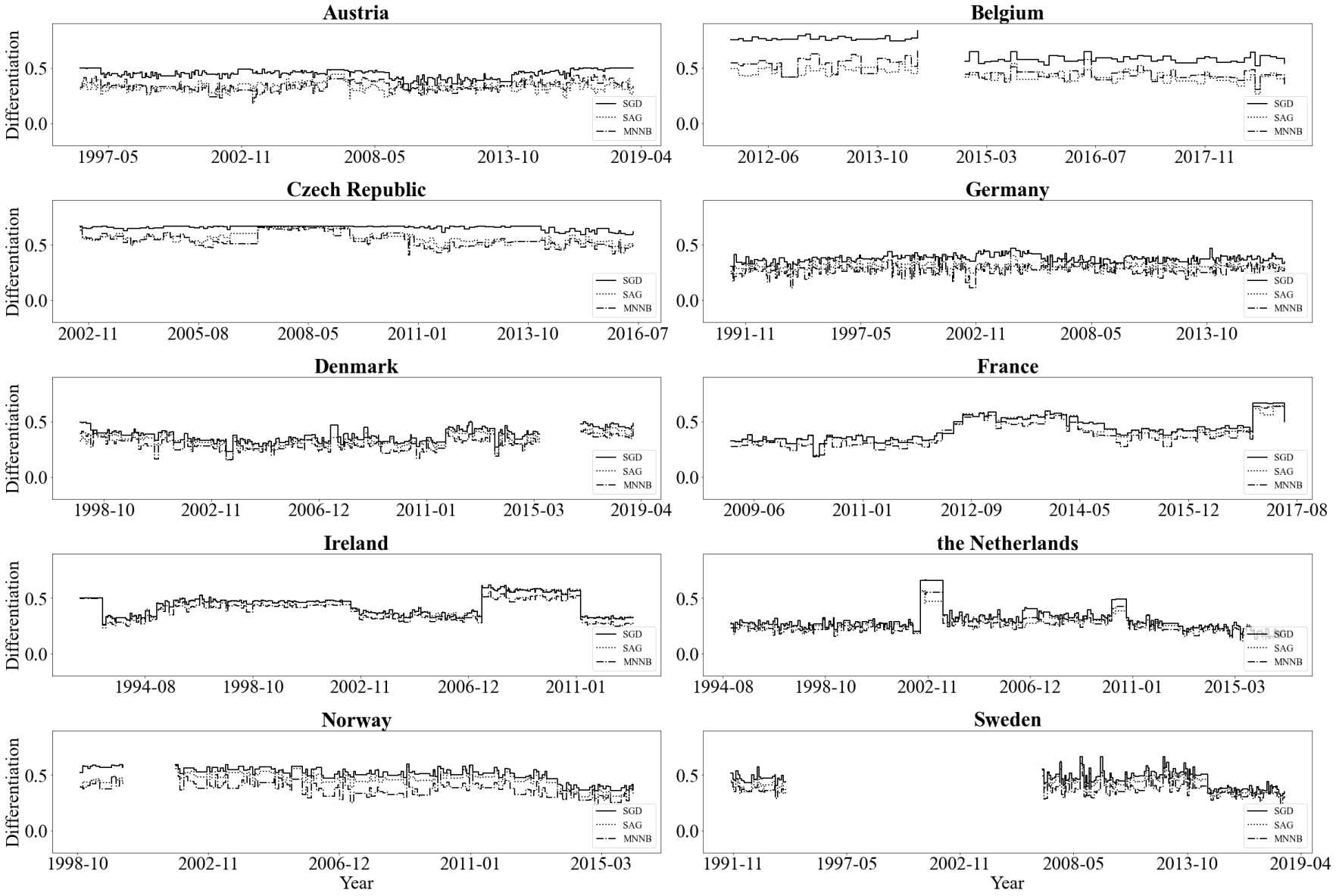


Figure A.1: Classifier Performance of Three Different Classifiers for Ten European Democracies.

Table A.2: Model Dependency Pearson's R Statistics.

Classifier Combination	**Coefficient: Cabinet**	**P-Value: Cabinet**	**Coefficient: Party**	**P-Value: Party**
NB-SGD	0.92	0.000	0.58	0.000
SGD-SAG	0.86	0.000	0.53	0.000
SAG-NB	0.91	0.000	0.4	0.000

These findings illustrate that all three classifiers generate very similar patterns in scores. More precisely, this confirms that they all identify the same latent variable, which I consider to be differentiation. There is thus no reason to believe model dependency is influencing the final metric.

A.3 Numerical Representation of Speech Data

With a range of different methods available for creating document-feature matrices from tokenised text data, this appendix considers three different approaches to numerically represent coalition speech data, and how each affects the resulting differentiation scores.

The most commonly employed methods are one hot-encoding, or bag-of-words approaches. The methods represent text data as word frequencies. This implies that one counts the frequency each word found in the corpus occurs in a document. In this particular application this would be the number of times a word from the set vocabulary appears in a coalition MP's speech, for all the coalition speeches performed during a cabinet's time in office. In the resulting document-feature matrix, the rows represent the speeches, and the columns represent the words in the set vocabulary. Each cell then contains the frequency that word appears in the respective speech. In this approach, all words are considered equally important.

The second method employed is another form of hot-encoding named Term Frequency – Inverse Document Frequency (TF-IDF) weighting. TF-IDF weighting also relies on counting the occurrence of words in each document, yet, as the name suggests, it scales these counts by the occurrence of each word in the full corpus. Therefore, less frequent, but presumably more information-rich words, are weighed as more important. Whereas more frequently used filler or stop words (which I do not remove ex-ante) are given less weight. This approach therefore creates a hierarchy amongst words in the corpus. Both the approaches listed above, only consider word frequency as a linguistic characteristic worth capturing. However, two speeches with no words in common and thus diametrically different as captured by one-hot encoding, might still be discussing the same topic or opinion. Thus, the third method employed is a form of numerically representing text data which is more sensitive to semantics: Document embeddings. Document embeddings are a distributed representation of words. This implies that instead of a vector of frequency, a document is represented by a dense vector of a set number of averaged dimensions (300 in this application, as per Rodriguez and Spirling (2022)).

Document embeddings average the embeddings for all the words found in a speech. These word embeddings represent the location of a word in a multidimensional space and thus indicate how similar words are to each other.[3] As a result, this method, therefore, can pick up semantic relationships between words, unlike one-hot encoding. For the algorithm to understand the semantic similarities between words, a significant amount of text data is required to train the embeddings. For this application, there simply is not enough data per language/country to do so, and, therefore, I rely of pre-trained embeddings from Word2Vec. This set of pre-trained word embeddings are made available by Google and are trained on billions of texts in a multitude of different languages.[4] The rows of the matrix generated by this document embedding approach continue to represent all coalition speeches in a cabinet, yet the columns represent the 300 (averaged) embedding dimensions, and not words. As such, using this method, one cannot investigate how precise words are driving classification. This degree of opacity into classification is a notable shortcoming when employing this method.

Table A.3: Correlation Coefficients for Vectorisation Combinations.

Combinations	**Coefficient: Cabinet**	**P-Value: Cabinet**	**Coefficient: Party**	**P-Value: Party**
TF-IDF - Count	0.93	0.000	0.88	0.000
Count- Embeddings	0.54	0.000	0.65	0.000
Embeddings – TF-IDF	0.48	0.000	0.51	0.000

The differentiation scores generated by each of these three methods are relatively similar, and show comparable patterns over time, as seen in Figure A.2. Moreover, all correlation coefficients (Pearson's R) between each combination of the three numerical representations of the speech data, reported in Table A.3, are positive and significant. This is encouraging as it suggests that all methods are identifying a

[3]Note that word embeddings therefore do not rely on the fixed vocabulary, as the previous two methods do.

[4]Google remains opaque about the exact composition of this data.

similar latent dimension of coalition party differentiation in the data. Nevertheless, the correlation of the document embedding scores with those of the one-hot encoding methods, remain significantly lower. This difference is driven by the great variety in correlation per country.

More precisely, as seen in Figure A.2, for some countries the three methods generate close to identical results (Ireland and France), yet for others the document embeddings scores are systematically lower and more variable than the bag-of-words equivalents (e.g. Czech Republic and Denmark). These variations are most likely generated due to the pre-trained embeddings used. Google remains opaque about the exact body of text data the embeddings are trained on, yet it is safe to assume languages like Czech and Danish are less prevalent in the training data than English. As a result, the scores generated by the pre-trained document embeddings are more unreliable for these countries than others. Therefore, this is not the most suitable method for cross-linguistic application. Moreover, additional shortcomings of the embedding method are its computationally intensity and the overall opacity of the resulting classification, as the averaged dimensions identified as driving classification are more challenging to interpret.

The remaining one-hot encoding representations of the speech data, counting and TF-IDF weighting, results in very similar scores, as seen in Figure A.2. A closer inspection of the words attributed the most weight in the classification for each class, indicates that overall TF-IDF weighting seems to promote information rich words more so than counting does. Figure A.3 displays the top 20 most important words used to distinguish classes in the classification of four two-party cabinets from Ireland.[5] The words listed are very similar, yet TF-IDF ranks words with relevance to policy debates higher, such as 'environmental', 'health', and 'defence'. As such, the scores resulting from the TF-IDF weighting are employed for the full analysis in Chapter 3. This method is computationally efficient, transparent, and prioritises the relevant words in classification.

[5]This selection is made as no translation is required, and weights are more interpretable for two-party coalitions. The party abbreviations in the table refer to Finna Fail (FF), Progressive Democrats (PD), and The Labour Party (Lab).

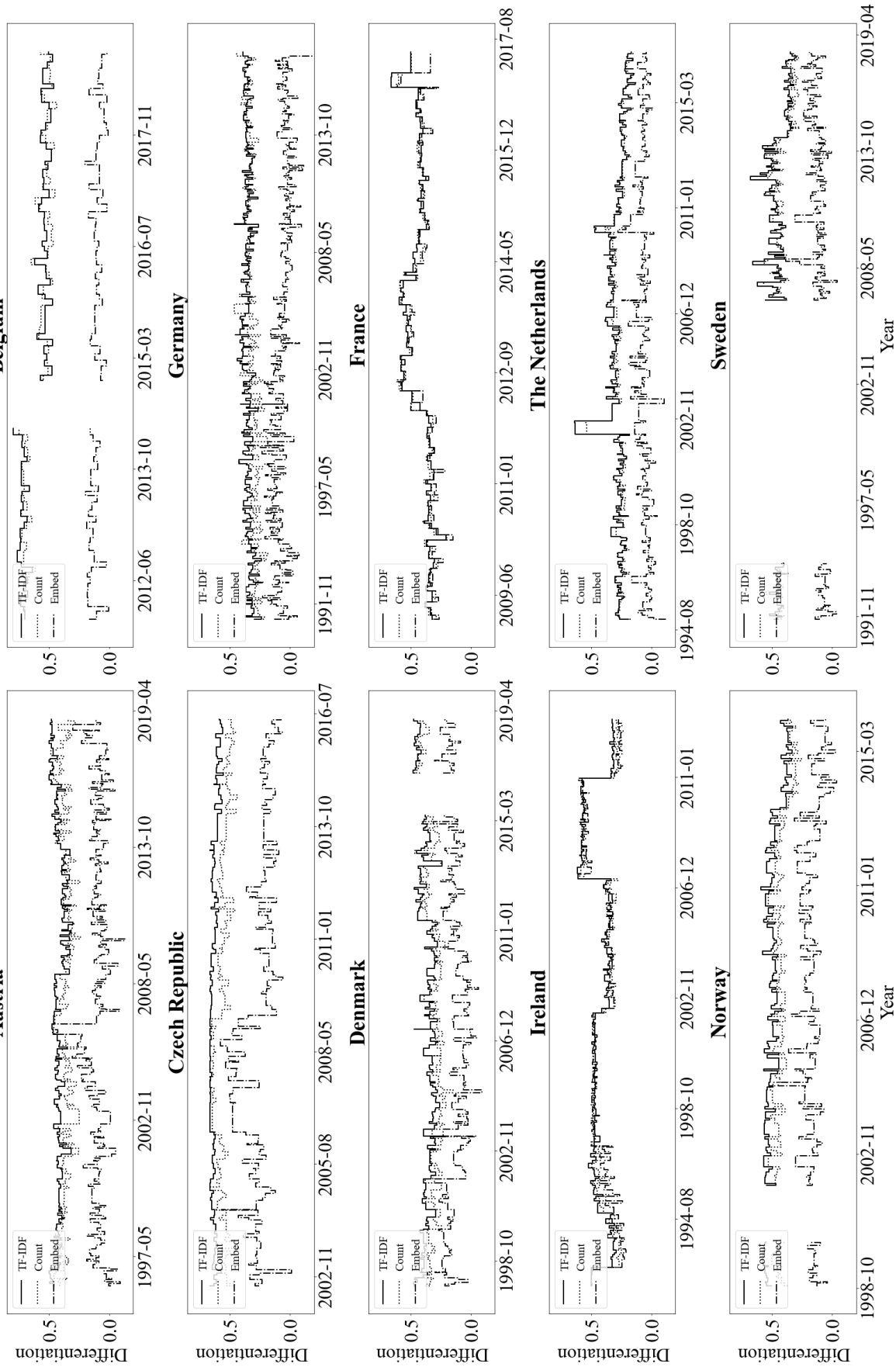


Figure A.2: Differentiation Scores from Three Different Numerical Representations of Speech Data for Ten European Democracies.

Reynolds II

Count FF	TF-IDF FF	Count Lab	TF-IDF Lab
fianna	garda	labour	labour
tourism	tourism	closing	school
customers	west	dialogue	housing
prisoners	environmental	practitioner	health
illegal	minister	occur	schools
naturalisation	roads	sports	ida
clients	donegal	democracy	hospital
apart	fianna	vocational	vocational
qualifying	prison	ourselves	teachers
letter	pensions	curriculum	my
mainly	fisheries	sanctioned	obviously
named	attorney	surrounding	chair
environmental	criminal	perspective	medical
offences	farmers	procurement	satisfactory
except	fishing	secured	board
military	operational	reforms	employment
recovery	farm	spouse	un
raising	supplementary	green	hospitals
integrity	taoiseach	indigenous	student
excellent	commissioners	police	arts

Ahern I

Count FF	TF-IDF FF	Count PD	TF-IDF PD
substitute	department	page	commissioners
regard	my	lã	works
referred	grant	works	office
relation	health	commissioners	public
asked	industry	colleague	colleague
informed	court	rating	happy
due	asked	copies	page
end	conservation	kildare	amendment
general	application	maintenance	cross
amount	school	move	station
department	work	contract	finance
dublin	architectural	firms	deputies
situation	housing	compensation	point
president	dublin	cross	contract
understand	people	amendment	our
constitution	side	finance	humanitarian
addition	services	in	bank
purpose	president	site	compensation
industry	protection	county	site
accordance	introduced	increases	flexibility

Ahern II

Count FF	TF-IDF FF	Count PD	TF-IDF PD
fishing	school	naturalisation	garda
cow	revenue	progressive	prison
controls	departmentâ	prison	mental
fianna	minister	prosperity	disability
fisheries	asked	garda	immigration
sports	forces	deportation	asylum
pleased	schools	immigration	works
departmentâ	sports	refugee	criminal
electricity	fishing	lodged	naturalisation
try	corps	mental	conservation
beef	military	enrolment	refugee
corps	fisheries	simply	aer
cattle	defence	equal	transport
revenue	electricity	aside	equal
forestry	animals	equitable	airport
rabbitte	television	exempt	crime
forces	rabbitte	legally	judicial
animals	farmers	kingdom	accordingly
conveyed	executive	criminal	inform
asked	institutions	flow	courts

Kenny I

Count FG	TF-IDF FG	Count Lab	TF-IDF Lab
naturalisation	extent	humanitarian	student
extent	protection	student	housing
named	skills	relatively	schools
mayo	named	police	supplement
military	mayo	refuse	welfare
citizenship	defence	supplement	planning
jurisdiction	naturalisation	necessarily	drugs
permit	farmers	greatest	dublin
elderly	hospitals	inspectorate	allowance
consequence	informed	except	vec
sheep	county	largely	school
reps	immigration	meath	poverty
defence	prison	prescribed	public
followed	disadvantaged	weekly	party
assume	criminal	withdrawn	humanitarian
cancer	banks	inquiries	teaching
lines	animal	argument	higher
participating	charge	drugs	meath
fishing	roads	raising	needs
sewerage	case	helping	social

Figure A.3: Comparison of the top 20 Words Used to Classify Parties From Four Irish Cabinets.

A.4 Coalition Parties as Unitary Actors

To test whether internal party division affects the differentiation scores, I consider scores of MPs and ministers separately. Metadata on roles of parliamentary speakers is only available for Austria and Sweden, for a total of 13 governments.[6] For this sample, I calculate differentiation scores for each speaker, per cabinet, in order to investigate the difference in aggregated behaviour between parliament and cabinet. If MPs are indeed less bound by consensus than their colleagues in cabinet, one would expect MPs to have, on average, a higher score than ministers do. Yet when comparing these two groups in Figure A.4, the opposite is true. These boxplots show that ministers score higher on average, especially for Swedish cabinets, and that the spread of the minister scores is significantly smaller when compared to those of the MPs.[7] This suggests cabinet ministers tend to differentiate more, and do so in a concise fashion.

Nevertheless, this higher score for ministers may simply be driven by their frequency of speech. More precisely, if ministers speak more often during their incumbency, the classifier will be better attuned to their language use and therefore classify them more accurately. To investigate this possibility, I plot these same scores across the number of speeches each speaker performs for the duration of the cabinet in Figure A.5. This shows that, indeed, cabinet members speak more often. Nevertheless, even those ministers who do not, still classify as high. This indicates that there is consistency across ministers of the same party in their language use, further enforcing the small spread seen in the boxplots in Figure A.4.

For MPs the spread of scores according to frequency is much larger, mostly because MPs speak much less frequently than ministers. Nevertheless, as seen in Table A.4, parliamentary party faction leaders tend to receive high differentiation scores, even in the rare occasions when these MPs speak infrequently.[8]

[6] Figure A.4 only includes a subset of Austrian governments, for clarity.

[7] For the full sample these differences are statistically significant with a t-score of 7.905 and p-value of 0.000.

[8] I was unable to locate the parliamentary faction leaders of the Swedish Centre Party. They have therefore been excluded.

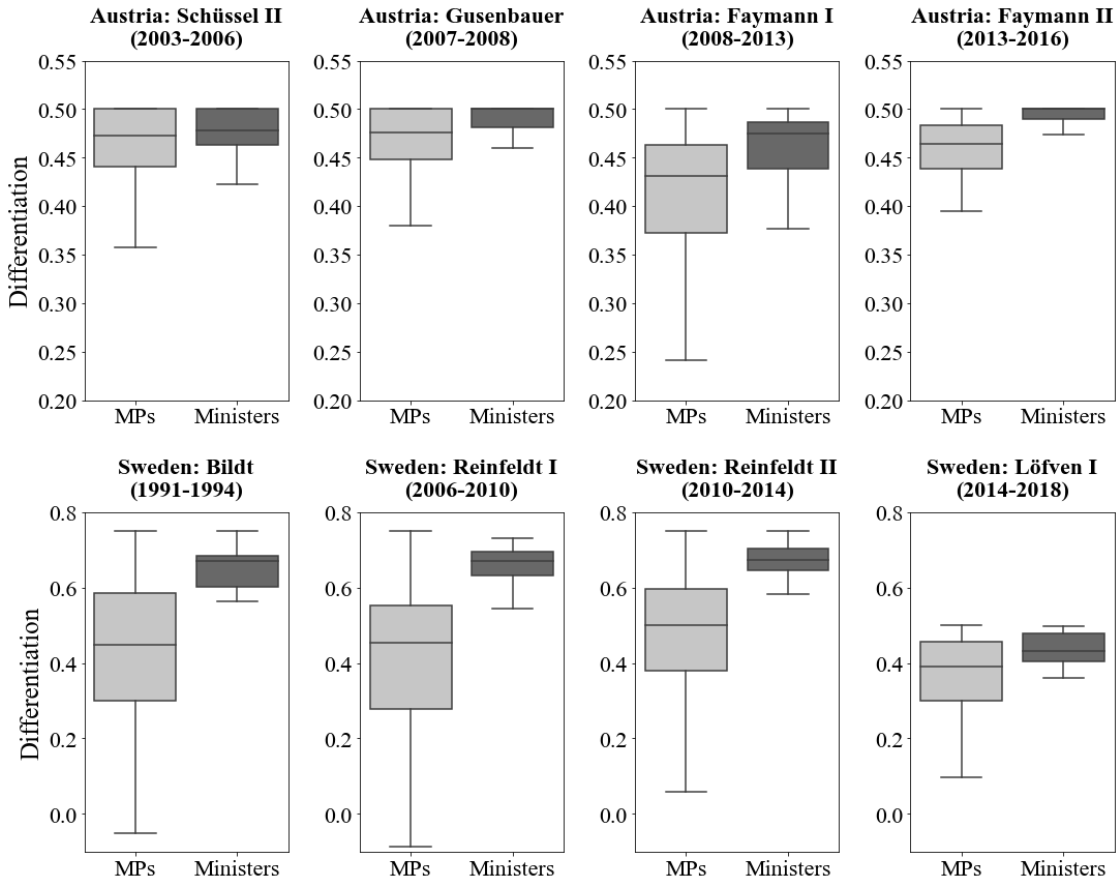


Figure A.4: Boxplots Comparing Differentiation Scores of MPs and Ministers for Eight Cabinets.

This is further encouraged by Figure A.6, which plots these scores per role (MPs and Ministers) over time, for the subsample. It shows that cabinet members enjoy a higher accuracy, but that the scores of MPs follow very similar patterns to those of the ministers. The differentiation scores of the full sample (full) are then an average between the those of the two roles, weighed by how frequent each role speaks in parliament.

The above indicates that variation in differentiation between cabinet and MPs is marginal. This is the case as the predominance of the data is generated by frequent speakers, and these frequent speakers belong to the party elite. These frequent speakers enjoy a high degree of homogeneity in their language use, regardless of role, and the resulting scores are therefore high. The speakers with a likelihood of divergence in speech speak much less frequently, and therefore only introduce

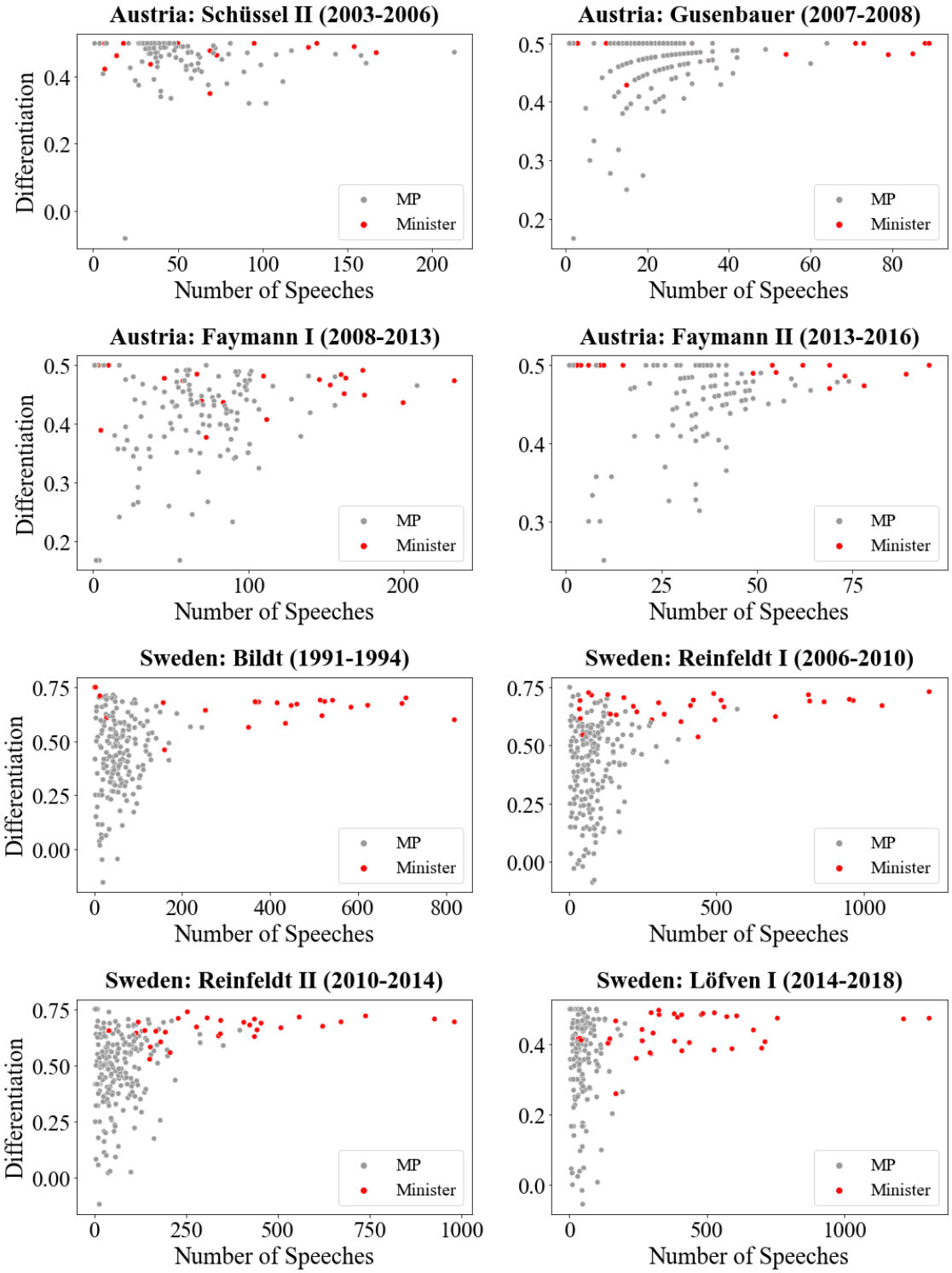


Figure A.5: Differentiation Scores and Frequency of Speaking for Ministers and MPs.

Table A.4: Differentiation Scores for Parliamentary Faction Leaders from Austria and Sweden.

Country	Cabinet	Party	MP	Score	Speeches
SE	Bildt	KD	Göran Hägglund	0.238	31
SE	Bildt	M	Lars Tobisson	0.504	76
SE	Bildt	L	Lars Leijonborg	0.487	48
SE	Reinfeldt I	KD	Stefan Attefall	0.526	164
SE	Reinfeldt I	M	Lars Lindblad	0.15	4
SE	Reinfeldt I	L	Johan Pehrson	0.548	98
SE	Reinfeldt II	KD	Mats Odell	0.175	163
SE	Reinfeldt II	KD	Emma Henriksson	0.675	107
SE	Reinfeldt II	M	Anna Kinberg Batra	0.705	93
SE	Reinfeldt II	L	Johan Pehrson	0.652	130
SE	Löfven I	MP	Janine Alm Ericson	0.426	188
SE	Löfven I	S	Tomas Eneroth	0.5	4
SE	Löfven I	S	Anders Ygeman	0.5	1
AT	Schüssel II	FPÖ	Herbert Scheibner	0.473	213
AT	Schüssel II	ÖVP	Wilhelm Molterer	0.478	117
AT	Gusenbauer	SPÖ	Josef Cap	0.500	64
AT	Gusenbauer	ÖVP	Wolfgang Schüssel	0.490	49
AT	Faymann I	SPÖ	Josef Cap	0.465	209
AT	Faymann I	ÖVP	Karlheinz Kopf	0.480	156
AT	Faymann II	SPÖ	Andreas Schieder	0.478	71
AT	Faymann II	ÖVP	Reinhold Lopatka	0.478	71

minimal noise in the classification process.

Nevertheless, it remains possible that divisions in language use emerge amongst the frequent speakers of a party. More precisely, this would occur if there were a complete separation in differentiation behaviour within the leadership of a party. In the case of a divided party leadership, the set of speeches the classifier is trained upon is much more heterogeneous for that respective party. Therefore, the classifier's understanding of what a party identity is, becomes more diffuse.

For instance, consider a latent dimension of language use on which one can place

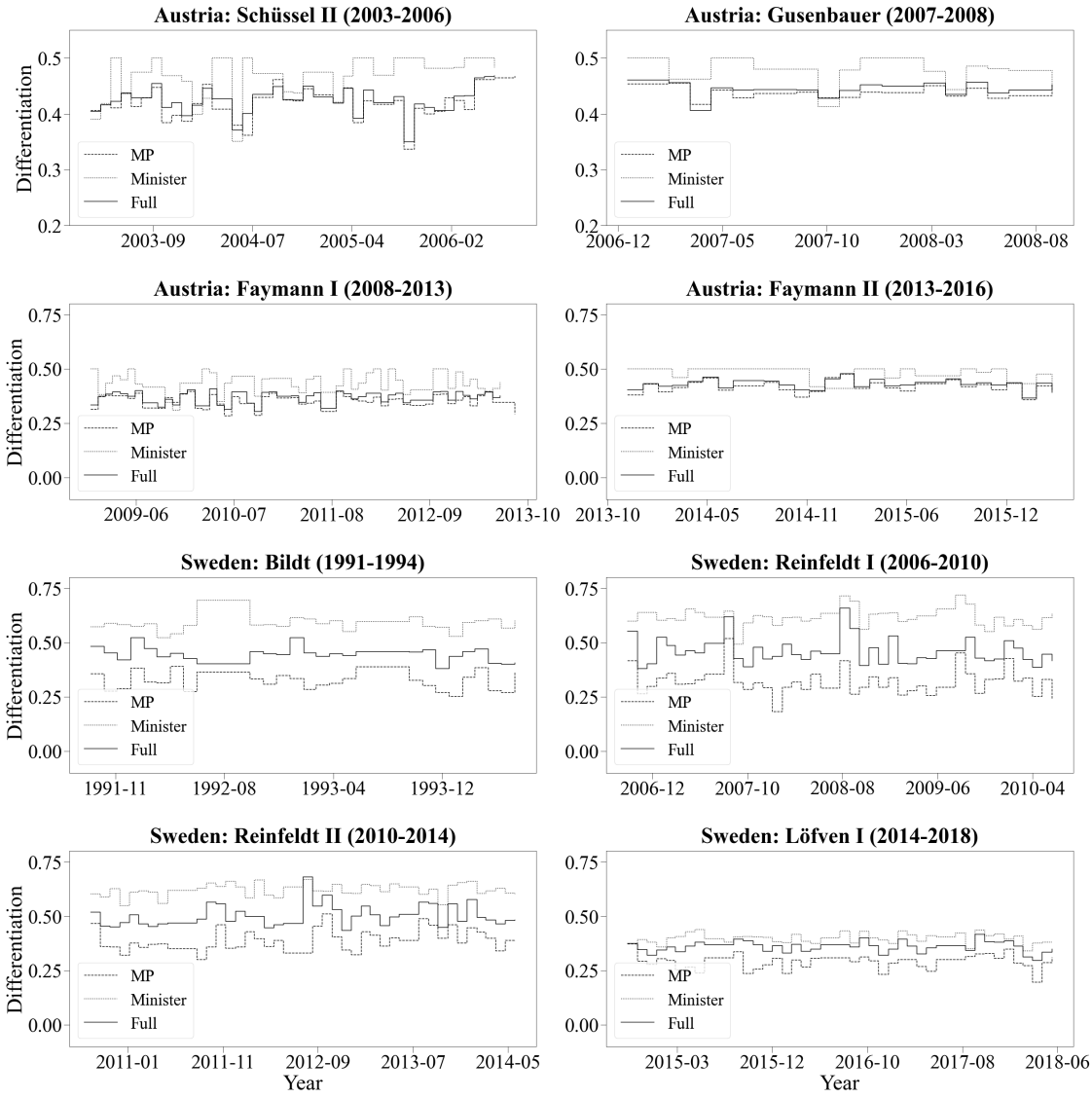


Figure A.6: Differentiation Scores Across Incumbency for MPs and Ministers.

a frequency distribution of speeches per party, as plotted in Figure A.7, Plot A.[9] Here the mean value, indicated by a dashed vertical line, indicates where a party identity expressed in parliamentary speech lies on the dimension in that point in time, and the standard deviation indicates how diffuse this identity is within the party itself. The intention of the measure is to capture change in means as coalition parties choose to unite or differentiate in language, and indicated in Plot B where party Bs mean changes from six to four, thereby moving closer to party A. Here the

[9]I do not expect the spread to follow a normal distribution, this is merely for the sake of simplicity.

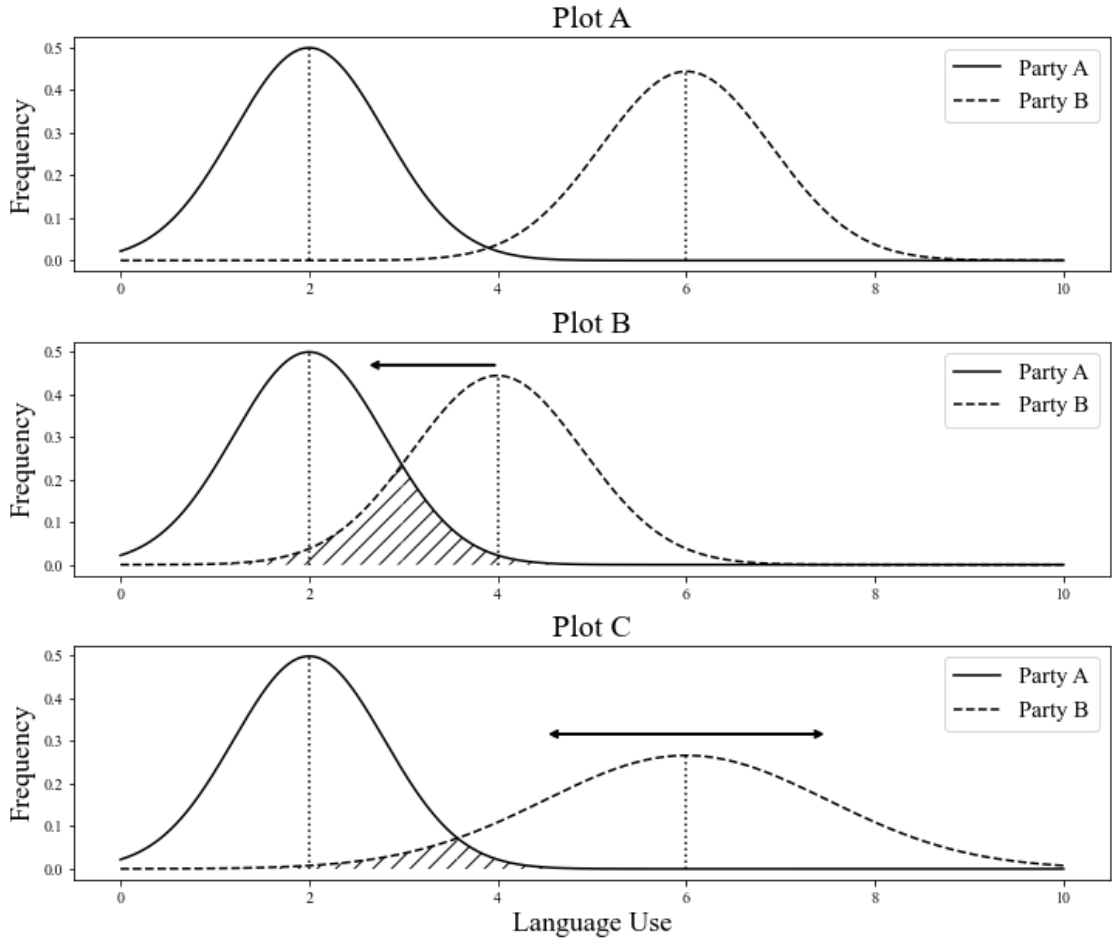


Figure A.7: Linguistic Distributions for a Hypothetical Cabinet.

shaded area where the two distributions overlap represents the linguistic similarities driving misclassification and lowering classification performance scores.

However, if frequent speakers become divided, and thereby the data for the party becomes more heterogeneous, the spread of the distribution is more affected than the mean. This is depicted in Plot C of Figure A.7. In such situations, any increase in the surface area where the two distributions overlap is not due to a central party decision to differentiate, and instead more of a reflection of an internal party conflict on the extent of differentiation.

In general, such division amongst frequent speakers is very rare in the sample this measure is currently applied to. The sample of countries is selected as they are characterised by party unity in parliament. The few cabinets in my sample where this may be an issue are those coalitions which include a populist party without

governing experience, such as the FPÖ in the Austrian Schüssel I government and the LPF in the Dutch Balkenende I government. In these outliers, party discipline is less prevalent, specifically with regards to the extent to which the party ought to govern with consensus or continue their more extreme position from the electoral campaign. How this affects the differentiation measure is elaborated on for the Schüssel I government below.

A.4.1 Schüssel I: Differentiation and Divided Party Leadership

To investigate how this measure of differentiation behaves in coalitions characterised by division amongst the frequent speakers of a party, I turn to the example of the Austrian government Schüssel I.[10] This government was comprised of the FPÖ and ÖVP, and marked the first time the extreme right party FPÖ was included in government. However, this did not occur without concessions. Although the FPÖ was the largest party by a fraction, the thought of an extreme figure such as FPÖ leader Jörg Haider as Chancellor was unacceptable for the ÖVP. As such, a consensus could only be reached after Haider had stepped down as party leader in favour of Susanne Riess-Passer, and the role of Kanzler went to the ÖVP party leader Schüssel instead, with Riess-Passer as vice-Chancellor. With this configuration, Schlüssel I took up office on the 4th of February 2000. Although not in a formal role, Haider continued to exert influence on the FPÖ party leadership from outside of the cabinet. More particular, Haider 'was stirring up FPÖ dissent with coalition policy (when he considered it unpopular) and causing headlines that shed a bad light on the coalition' (Müller, 2021, p.64). These interventions put a significant strain on coalition governance, as any FPÖ attempt at compromise with ÖVP would quickly be labelled as complicit and docile by Haider and his following, to the frustration of the FPÖ cabinet and parliamentary faction. Riess-Passer initially attempted to contain these division in the party by publicly siding with Haider during these conflicts. She expected the same from the rest of the party in office, the most notable example of which was her public condemning of the leader of the parliamentary group, Peter Westenthaler. In particular, she stated that "his criticism of Haider was 'disgraceful' and indicated that he would be removed if this should happen again" (Müller and Fallend, 2004, p. 825). In fact, it was generally assumed that Haider, by proxy, 'could remove the incumbent party leadership

[10]This selection is made based on its composition and the availability of metadata on the role of the parliamentary speaker.

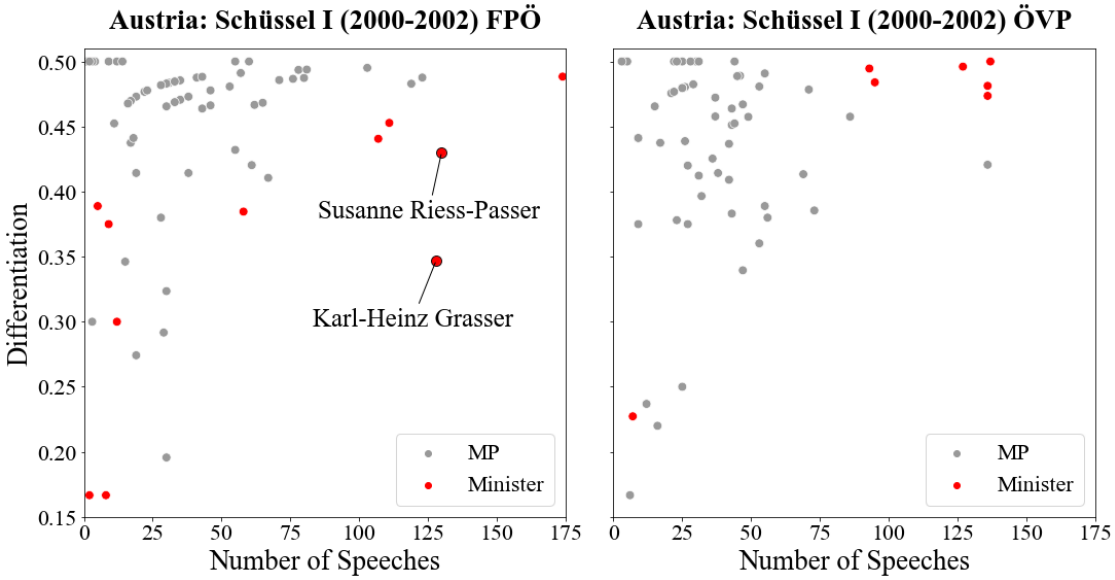


Figure A.8: Comparison of Scores Aggregated by Speaker Across Frequency of Speaking for Both Parties of Schüssel I.

and government team at will' (Müller and Fallend, 2004, p. 821), simply due to his popularity amongst party membership.

Nevertheless, the tensions between the more moderate FPÖ members in government and Haider and his followers 'became increasingly visible over time' (Müller 2004 p.825). And thus, after 32 months in office, on the 7th of September 2002 a number of FPÖ ministers and MPs, notably including Westenthaler and Riess-Passer, resigned from their role and from the party, citing these irreconcilable differences with Haider as the cause. Schüssel, in response, dissolved the coalition and called for early general elections. This example shows a coalition government where the leadership of one of its parties was divided, specifically on the extent to which they ought to unite or differentiate within their coalition partner, the ÖVP. When plotting aggregated differentiation scores per speaker against the number of speeches, as seen in Figure A.8, one can see that there is no longer a consistent high differentiation amongst ministers as seen in Figure A.5.

One FPÖ minister in particular, Karl-Heinz Grasser, stands out, as he speaks relatively frequently, yet has a significantly lower score, meaning he is repeatedly mistaken by the classification algorithm as belonging to the ÖVP. This is consistent

with the anecdotal evident of his parliamentary behaviour, as put by Müller and Fallend (2004): 'Grasser was most successful in image building [...], yet he did so as an individual rather than a party representative, stressing his independence from the party verbally and symbolically' (p. 819). Grasser was also amongst the ministers resigning in September 2002 and notably, he was a minister in the subsequent Schüssel II government, yet this time for the ÖVP. This, therefore, marks a frequent speaker in parliament with a strong likelihood of moving away from his own party, and towards its coalition partner.

It should be noted that the absence of a centralised pattern amongst ministers is not only due to disagreement, but also because of a high turnover rate of FPÖ ministers. The party namely 'had scant supply of people fit for ministerial office and [...] its leaders did not have a good hand in making appointments' (Müller and Fallend, 2004, p. 818). As a result, many ministers had little opportunity to speak in parliament before being replaced. This results in more ministers marked on the lower end of the x-axis in Figure A.8, than for the ÖVP. Nevertheless, combined, the disagreement, turnover rate, and lack of experience, amounted to much less coherence in differentiation amongst FPÖ ministers in general.

What this Figure shows is that the FPÖ could not enforce a centralised strategy of unity or differentiation amongst its ministers, at least not when considering the data aggregated by speaker. When plotting the differentiation scores for MPs and ministers over time in Figure A.9, one can again see the erratic and inconsistent pattern of FPÖ ministers. This is, in part, driven by the overall number of fewer speeches than the parliamentary faction, yet it also reflects the lack of a unified strategy amongst the ministers. The parliamentary faction, on the other hand, displays a more stable pattern over time, as they speak more frequently, and, as such, the scores of all FPÖ speakers combined (full) follow this variation more closely.

More precisely, the scores remain relatively high at the onset of the incumbency as Haider keeps his influence over party leadership. Yet as this control decreases over time, and thus more ministers and MPs favour consensus, the scores drop and remain lower than the ÖVP until the great resignation of early September

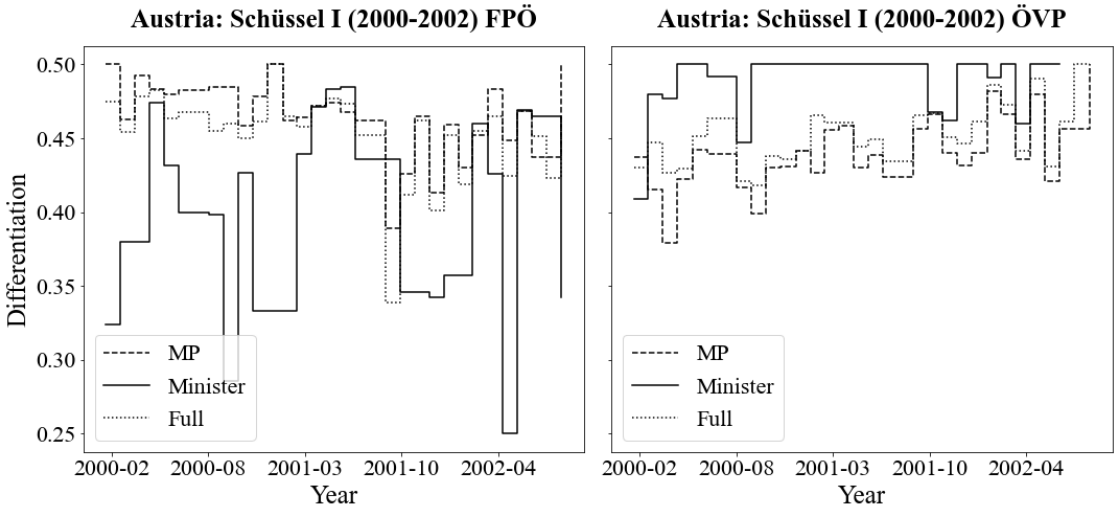


Figure A.9: Coalition Differentiation Scores Across Incumbency for Both Parties of Schüssel I.

2002. The upturn in differentiation scores at the end of the incumbency are based on speech data solely from after this resignation and signal the start of Schüssel I as a caretaker government. To conclude, in this example, divisions amongst the leadership cause the scores to drop. This shows that, even in the absence of a united differentiation strategy amongst party leadership, this measure of coalition differentiation still captures the extent to which a coalition is united in parliamentary speech. Nevertheless, increased unity due to only a section of frequent speakers assimilating is farcical, as it remains a deviant behaviour which inevitably lead to the fall of the cabinet. As such, in the rare instance that a party's frequent speakers, made up of the party elites, is inherently divided on the extent the party ought to assimilate to its coalition partners, the resulting scores should be interpreted with caution.

B

Appendix of Chapter 4: Who gets to be different?

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B.1 Lag Assessment

Table B.1: Cabinet Fixed Effect Panel Regression Analysis of Coalition Party Differentiation With Different Lagged Dependent Variables.

	Dependent variable:					
	Differentiation					
	(1)	(2)	(3)	(4)	(5)	(6)
CIP $_{t-1}$	0.013***	0.013***	0.012***			
	(0.003)	(0.003)	(0.003)			
Poll Performance $_{t-1}$				0.0003***	0.0003***	0.0003***
				(0.0001)	(0.0001)	(0.0001)
Differentiation $_{t-1}$	0.502***			0.298***		
	(0.056)			(0.076)		
Differentiation $_{t-2}$		0.496***			0.287***	
		(0.063)			(0.085)	
Differentiation $_{t-3}$			0.524***			0.326***
			(0.062)			(0.082)
Electoral Cycle	0.0003	0.002	0.003	0.001	0.003	0.004
	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)
Chief Executive Status				0.010*	0.009*	0.009*
				(0.005)	(0.005)	(0.005)
Seat Share				0.0002***	0.0002***	0.0002***
				(0.0001)	(0.0001)	(0.0001)
Cabinet Fixed Effects	✓	✓	✓	✓	✓	✓
Observations	3,314	3,179	3,045	3,188	3,060	2,933
R^2	0.396	0.392	0.413	0.480	0.482	0.496
Adjusted R^2	0.385	0.381	0.402	0.471	0.472	0.486
Note:						*p<0.1; **p<0.05; ***p<0.01

B.2 First Differences Panel Regression

Table B.2: Country Fixed Effects First Differences Panel Regression Analysis of Coalition Party Differentiation.

	Dependent variable:						
	Differentiation						
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
CIP $_{t-1}$	0.031***	0.011***	0.011***				
	(0.006)	(0.002)	(0.003)				
Poll Performance $_{t-1}$				0.001***	0.0004***	0.0004***	0.0003***
				(0.0001)	(0.0001)	(0.0001)	(0.0001)
Electoral Cycle			0.016**			0.018**	0.021***
			(0.007)			(0.007)	(0.008)
Chief Executive Status							0.003
							(0.004)
Seat Share							0.0002***
							(0.00005)
Differentiation $_{t-1}$		0.633***	0.632***		0.455***	0.453***	0.419***
		(0.054)	(0.055)		(0.078)	(0.079)	(0.087)
Constant	0.0002	0.0001	0.001*	0.0001	0.0001	0.001*	0.001**
	(0.0003)	(0.0002)	(0.0003)	(0.0002)	(0.0002)	(0.0003)	(0.0003)
Cabinet Fixed Effects	✓	✓	✓	✓	✓	✓	✓
Observations	3,283	3,283	3,258	3,283	3,283	3,258	3,134
R^2	0.271	0.572	0.573	0.516	0.619	0.621	0.634
Adjusted R^2	0.271	0.571	0.572	0.516	0.619	0.620	0.634
Note:							*p<0.1; **p<0.05; ***p<0.01

B.3 Perceived Distance Panel Regression

When first introduced the PCR theory of differentiation did not assess an individual party's poll performance as the independent variable. Instead, the perceived ideological distance between coalition parties by voters is considered (Fortunato, 2019b). To assess how this measure behaves in comparison to the alternative operationalisation of performance in the polls and whether the positive association found in Chapter 4 holds, this section reports on an additional set of models which include the averaged perceived distance between a coalition party and its partners. The original measure concerned the perceived ideological distance between a coalition party dyad, based on public opinion polls taken from the onset of incumbency. To obtain a single value per coalition party, I average the value of each dyad a party is included in.[1] The countries in the sample for which there is both poll data and perceived distance scores are Denmark and The Netherlands. This constitutes a sample of nine coalition cabinets and 347 party-month observations. Both measures, in addition to the control variables specified in the main text, are included in a panel regression model with country fixed effects[2], as well as country-clustered standard errors.

To summarise the theoretical expectations: the PCR theory of differentiation stipulates a negative relationship between perceived difference and differentiation. Thus, the smaller the perceived distance is, the larger the penalty of compromise will be for the respective parties in the polls. Such a decrease in popularity then is a significant incentive for parties to publicly differentiate. Including both perceived distance and performance in polls does not only allow for the verification of alternative operationalisation in the main model, it also enables one to assess the temporal order of events. This raises the question when a party is faced with a perceived similarity to its coalition parties at the onset of incumbency, does it differentiate in order to mitigate the anticipated drop in popularity, or does it wait to

[1] This is done using the replication data kindly provided by David Fortunato.

[2] Since perceived distance does not vary within cabinets for coalitions of only two parties, this is chosen over cabinet fixed effects.

see how it actually affects the polls before taking action? This is not something that is necessarily clear from the original conception of the PCR theory of differentiation.

Table B.3: Perceived Distance Panel Regression Results.

	Dependent variable:				
	Differentiation				
	(1)	(2)	(3)	(4)	(5)
Perceived Distance	0.014	0.009	0.004	0.005	0.001
	(0.028)	(0.018)	(0.008)	(0.007)	(0.012)
Poll Performance $_{t-1}$		0.001***	0.0003***	0.0003***	0.0002***
		(0.00003)	(0.00000)	(0.00002)	(0.00001)
Differentiation $_{t-1}$			0.549***	0.499***	0.482***
			(0.053)	(0.072)	(0.089)
Electoral Cycle				−0.0001	0.001
				(0.002)	(0.002)
Chief Executive Status					−0.014*
					(0.008)
Seat Share					0.001*
					(0.001)
Country FE	✓	✓	✓	✓	✓
Observations	372	351	351	347	347
R^2	0.009	0.305	0.514	0.503	0.512
Adjusted R^2	0.004	0.299	0.509	0.496	0.501
Note:					*p<0.1; **p<0.05; ***p<0.01

Table B.3 report the results of these models. All of which indicate that the effect of perceived distance at the onset of incumbency on differentiation in speech is not significantly different from 0. Poll performance, on the other hand, maintains its small but significant effect on differentiation regardless of the inclusion of perceived difference. Based on these results, one can consider differentiation to be reactionary to poll data and not anticipatory. Additionally, the positive coefficient indicates that

this is a behaviour which seems to be reserved for those parties which are faring well to begin with. It should be noted that the absence of an effect of perceived distance on differentiation is in no way a direct invalidation of the original findings, especially considering this application required a significant reworking of the original design. Moreover, the original analysis considered legislative amendments and not legislative speech. It thus remains possible that perceived distance at time of formation does not affect differentiation in speech in the same way as it does amendments.

C

Appendix of Chapter 5: Obstruction for Credibility

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C.1 Junior Coalition Party Analysis

Table C.1: Negative Binomial Regression Analysis of Economic Reform Productivity by Junior Coalition Parties With Country Fixed Effects and Country Robust Clustered Standard Errors.

	Dependent variable:				
	Number of Reforms				
	(1)	(2)	(3)	(4)	(5)
Differentiation $_{t-1}$	−0.171		0.489	1.100	5.162
	(1.097)		(1.746)	(2.941)	(3.282)
CIP $_{t-1}$		−0.035	−0.046	0.022	0.386
		(0.069)	(0.093)	(0.425)	(0.438)
Differentiation $_{t-1}$ * CIP $_{t-1}$				−0.252	−0.714
				(1.336)	(1.066)
Ideological Range					−0.273
					(0.177)
Recession					0.172
					(0.196)
Job Crisis					0.811
					(0.648)
Alternation					0.754*
					(0.389)
Number of Parties					0.433
					(0.429)
Fraction of Days					1.486
					(1.223)
Election Year					−0.272
					(0.248)
Intercept	2.923***	2.884***	2.702***	2.491**	−1.265
	(0.457)	(0.156)	(0.648)	(1.058)	(2.501)
Country Fixed Effects	✓	✓	✓	✓	✓
Number of Countries	4	4	4	4	4
Observations	40	35	35	35	35
R2	0.064	0.072	0.074	0.075	0.437
Log Likelihood	−143	−125	−125	−125	−116
AIC	297	260	262	264	256
Note:					*p<0.1; **p<0.05; ***p<0.01

C.2 Majority and Minority Cabinet Analysis

Table C.2: Negative Binomial Regression Analysis of Economic Reform Productivity for Minority and Majority Cabinets.

	Dependent variable:		
	Number of Reforms		
	(1)	(2)	(3)
Differentiation $_{t-1}$	0.961	−2.755	15.105**
	(1.960)	(4.609)	(7.262)
CIP $_{t-1}$	0.129*	−0.294	1.557**
	(0.079)	(0.487)	(0.736)
Majority Status			9.531**
			(3.844)
Differentiation $_{t-1}$ * CIP $_{t-1}$		1.109	−2.909*
		(1.192)	(1.709)
Differentiation $_{t-1}$ * Majority			−20.991**
			(8.713)
CIP $_{t-1}$ * Majority			−2.637***
			(0.946)
Differentiation $_{t-1}$ * CIP $_{t-1}$ * Majority			5.976***
			(2.266)
Ideological Range	−0.070	−0.079	0.046
	(0.083)	(0.085)	(0.119)
Recession	0.057	0.066	0.173
	(0.205)	(0.201)	(0.190)
Job Crisis	0.087	0.081	0.099
	(0.347)	(0.346)	(0.374)
Alternation	0.101	0.072	0.183
	(0.144)	(0.153)	(0.198)
Number of Parties	−0.101	0.010	−0.463
	(0.443)	(0.461)	(0.587)
Election Year	−0.497***	−0.501***	−0.528***
	(0.162)	(0.161)	(0.162)
Fraction of Days	0.461	0.423	0.040
	(0.435)	(0.432)	(0.543)
Intercept	2.241***	3.598**	−3.605
	(0.570)	(1.615)	(2.879)
Country Fixed Effects	✓	✓	✓
Observations	56	56	56
R2	0.504	0.512	0.554
Log Likelihood	−182	−181	−178
AIC	393	394	396
Note:			*p<0.1; **p<0.05; ***p<0.01

References

Adrian, C. R., & Press, C. (1968). Decision costs in coalition formation. *The American political science review*, *62*, 556–563.

Algara, C., & Zamadics, J. C. (2019). The member-level determinants and consequences of party legislative obstruction in the u.s. senate. *American politics research*, *47*, 768–802.

Andeweg, R., & Timmermans, A. (2010). Conflict management in coalition government. In K. Strøm, W. C. Müller, & T. Bergman (Eds.). Oxford University Press.

Angelova, M., Bäck, H., Müller, W. C., & Strobl, D. (2018). Veto player theory and reform making in western europe. *European journal of political research*, *57*, 282–307.

Atwood, M. (2002). *Negotiating with the dead : A writer on writing*. Cambridge University Press.

Axelrod, R. M. (1970). *Conflict of interest : A theory of divergent goals with applications to politics*. Markham.

Bäck, H., Baumann, M., Debus, M., & Müller, J. (2019). The unequal distribution of speaking time in parliamentary-party groups. *Legislative Studies Quarterly*, *44*, 163–193.

Bäck, H., Debus, M., & Dumont, P. (2011). Who gets what in coalition governments? predictors of portfolio allocation in parliamentary democracies. *European journal of political research*, *50*, 441–478.

Bäck, H., Debus, M., & Fernandes, J. M. (2021). *The politics of legislative debates*. Oxford University Press USA - OSO.

Bagehot, W. (1965). *The collected works of walter bagehot* (N. S. John-Stevas, Ed.). The Economist.

Baltagi, B. H. (H. (2005). *Econometric analysis of panel data* (3rd ed.). Wiley.

Becher, M., & Christiansen, F. J. (2015). Dissolution threats and legislative bargaining. *American Journal of Political Science*, *59*, 641–655.

Bergman, M., Angelova, M., Bäck, H., & Müller, W. C. (2024). Coalition agreements and governments' policy-making productivity. *West European politics*, *47*, 31–60.

Bergman, T., Bäck, H., & Hellström, J. (2021). *Coalition governance in western europe*. Oxford University Press.

Bergman, T., Ilonszki, G., & Müller, W. C. (2020). *Coalition governance in central eastern europe*. Oxford University Press USA - OSO.

Bernardi, L. (2020). From popularity to vulnerability: An application to dynamic representation in coalition governments. *Party politics*, *26*, 459–470.

Bernardi, L., & Adams, J. (2019). Governing coalition partners' images shift in parallel but do not converge. *Journal of Politics*, *81*, 1500–1511.

Blondel, J., & Müller-Rommel, F. (1988). *Cabinets in western europe* (J. Blondel & F. Müller-Rommel, Eds.). Macmillan.

Bogdanor, V. (1983). *Coalition government in western europe* (V. Bogdanor, Ed.). Heinemann Educational.

Boston, J., & Bullock, D. (2010). Multi-party governance: Managing the unity-distinctiveness dilemma in executive coalitions. *Party politics*, *18*, 349–368.

Bowler, S., Gschwend, T., & Indridason, I. H. (2020). Coalition policy perceptions. *The Journal of politics*, *82*, 1458–1473.

Box-Steffensmeier, J. M., Freeman, J., Hitt, M., & Pevehouse, J. (2014). *Time series analysis for the social sciences*. Cambridge University Press.

Browne, E. C., & Franklin, M. N. (1973). Aspects of coalition payoffs in european parliamentary democracies. *The American political science review*, *67*, 453–469.

Bucur, C. (2018). Cabinet payoffs in coalition governments: A time-varying measure of portfolio importance. *Party Politics*, *24*, 154–167.

Burst, T., Krause, W., Lehmann, P., Lewandowski, J., Matthieß, T., Merz, N., Regel, S., & Zehnter, L. (2021). *Manifesto corpus* (2021-1). WZB Berlin Social Science Center.

Cameron, A., & Trivedi, P. K. (1990). Regression-based tests for overdispersion in the poisson model. *Journal of econometrics*, *46*, 347–364.

Carroll, R., & Cox, G. W. (2012). Shadowing ministers. *Comparative political studies*, *45*, 220–236.

Dodd, L. C. (1976). *Coalitions in parliamentary government*. Princeton University Press.

Döring, H., Huber, C., & Manow, P. (2022). Parliaments and governments database (parlgov): Information on parties, elections and cabinets in established democracies.

Dörrenbächer, N., Mastenbroek, E., & Toshkov, D. D. (2015). National parliaments and transposition of eu law: A matter of coalition conflict? *Journal of Common Market Studies*, *53*, 1010–1026.

Dumont, P., Falcó-Gimeno, A., Indridason, I. H., & Bischof, D. (2024). Pieces of the puzzle? coalition formation and tangential preferences. *West European politics*, *47*, 61–87.

Ecker, A., & Meyer, T. M. (2017). Coalition bargaining duration in multiparty democracies. *British Journal of Political Science*, *50*, 261–280.

Ecker, A., & Meyer, T. M. (2019). Fairness and qualitative portfolio allocation in multiparty governments. *Public choice*, *181*, 309–330.

Fortunato, D. (2019a). The electoral implications of coalition policy making. *British journal of political science*, *49*, 59–80.

Fortunato, D. (2019b). Legislative review and party differentiation in coalition governments. *American Political Science Review*, *113*, 242–247.

Fortunato, D. (2021). *The cycle of coalition : How parties and voters interact under coalition governance*.

Fortunato, D., Lin, N. C., Stevenson, R. T., & Tromborg, M. W. (2021). Attributing policy influence under coalition governance. *American Political Science Review*, *115*, 252–268.

Fortunato, D., & Stevenson, R. T. (2013). Perceptions of partisan ideologies: The effect of coalition participation. *American journal of political science*, *57*, 459–477.

Gamson, W. A. (1961). A theory of coalition formation. *American sociological review*, *26*, 373–382.

Gentzkow, M., Shapiro, J. M., & Taddy, M. (2019). Measuring group differences in high-dimensional choices: Method and application to congressional speech. *Econometrica*, *87*, 1307–1340.

Goet, N. D. (2019). Measuring polarization with text analysis: Evidence from the uk house of commons, 1811-2015. *Political Analysis*, *27*, 518–539.

Goldring, E., Park, B. B., & Williams, L. K. (2020). Should we talk about the weather? how party competition and coalition participation influence parties' attention to economic issues. *Party politics*, *26*, 730–743.

Greene, Z. (2017). Working through the issues: How issue diversity and ideological disagreement influence coalition duration. *European Political Science Review*, *9*, 561–585.

Greene, Z., Henceroth, N., & Jensen, C. B. (2021). The cost of coalition compromise: The electoral effects of holding salient portfolios. *Party politics*, *27*, 827–838.

Greene, Z., & Jensen, C. B. (2018). Ruling divided: Disagreement, issue salience, and portfolio allocation. *Party Politics*, *24*, 640–651.

Grimmer, J. (2010). A bayesian hierarchical topic model for political texts: Measuring expressed agendas in senate press releases. *Political analysis*, *18*, 1–35.

Grofman, B., & Roozendaal, P. V. (1997). Modelling cabinet durability and termination. *British Journal of Political Science*, *27*, 419–451.

Hjermitslev, I. B. (2020). The electoral cost of coalition participation: Can anyone escape? *Party politics*, *26*, 510–520.

Høyland, B., Godbout, J.-F., Lapponi, E., & Velldal, E. (2014). Predicting party affiliations from european parliament debates. http://emanuel.at.ifi.uio.

Huber, J. D., & McCarty, N. (2001). Cabinet decision rules and political uncertainty in parliamentary bargaining. *The American political science review*, *95*, 345–360.

Imre, M., Ecker, A., Meyer, T. M., & Müller, W. C. (2022). Coalition mood in european parliamentary democracies. *British Journal of Political Science*, 1–18.

Johnson, C., & Middleton, A. (2016). Junior coalition parties in the british context: Explaining the liberal democrat collapse at the 2015 general election.

Johnston, T. (2018). Negotiating around obstruction: Legislative effectiveness in the us senate. *PS, political science politics*, *51*, 111–114.

Kayser, M. A., Orlowski, M., & Rehmert, J. (2022). Coalition inclusion probabilities: A party-strategic measure for predicting policy and politics. *Political Science Research and Methods*, 1–19.

Kayser, M. A., & Rehmert, J. (2021). Coalition prospects and policy change: An application to the environment. *Legislative studies quarterly*, *46*, 219–246.

Keele, L., & Kelly, N. J. (2006). Dynamic models for dynamic theories: The ins and outs of lagged dependent variables. *Political analysis*, *14*, 186–205.

Klüver, H., & Bäck, H. (2019). Coalition agreements, issue attention, and cabinet governance. *Comparative Political Studies*, *52*, 1995–2031.

Klüver, H., Bäck, H., & Krauss, S. (2023). *Coalition agreements and control devices*. Oxford University Press.

Klüver, H., & Spoon, J.-J. (2017). Challenges to multiparty governments: How governing in coalitions affects coalition parties' responsiveness to voters.

Klüver, H., & Spoon, J.-J. (2020). Helping or hurting? how governing as a junior coalition partner influences electoral outcomes. *The Journal of politics*, *82*, 1231–1242.

König, T., Lin, N., Lu, X., Silva, T. N., Yordanova, N., & Zudenkova, G. (2022). Agenda control and timing of bill initiation: A temporal perspective on coalition

governance in parliamentary democracies. *American Political Science Review*, *116*, 231–248.

Krauss, S. (2018). Stability through control? the influence of coalition agreements on the stability of coalition cabinets. *West European Politics*, *41*, 1282–1304.

Laver, M. (2021). Analyzing the politics of legislative debate. In H. Bäck, M. Debus, & J. Fernandes (Eds.). Oxford University Press.

Laver, M., & Benoit, K. (2015). The basic arithmetic of legislative decisions. *American journal of political science*, *59*, 275–291.

Laver, M., & Shepsle, K. (1998). Events, equilibria, and government survival. *American Journal of Political Science*, *42*, 28–54.

Laver, M., & Shepsle, K. A. (1990). Coalitions and cabinet government. *The American political science review*, *84*, 873–890.

Laver, M., & Shepsle, K. A. (1996). *Making and breaking governments : Cabinets and legislatures in parliamentary democracies*. Cambridge University Press.

Lijphart, A. (2012). *Patterns of democracy : Government forms and performance in thirty-six countries* (Second edition/). Yale University Press.

Lipsmeyer, C. S., & Pierce, H. N. (2011). The eyes that bind: Junior ministers as oversight mechanisms in coalition governments. *The Journal of politics*, *73*, 1152–1164.

Locke, J. (1772). *Some thoughts concerning education by john locke, esq; .* (The fourteenth ed...). printed for J. Whiston, W. Strahan, J.; F. Rivington, B. White, L. Davis, Hawes, Clarke; Collins, W. Johnston, W. Owen, T. Caslon, S. Crowder, T. Longman, B. Law, C. Rivington, E. Dilly, J. Wilkie, T. Cadell, S. Baker, T. Payne, T. Davies, G. Rob...

Lowe, W., Benoit, K., Mikhaylov, S., & Laver, M. (2011). Scaling policy preferences from coded political texts. *Legislative studies quarterly*, *36*, 123–155.

Lupia, A., & Strøm, K. (1995). Coalition termination and the strategic timing of parliamentary elections.

Lupia, A., & Strøm, K. (2010). Bargaining, transaction costs, and coalition governance. In K. strøm, W. C. Müller, & T. Bergman (Eds.). Oxford University Press.

Maoz, Z., & Somer-Topcu, Z. (2010). Political polarization and cabinet stability in multiparty systems: A social networks analysis of european parliaments, 1945-98. *British Journal of Political Science*, *40*, 805–833.

Martin, L. W. (2004). The government agenda in parliamentary democracies. *American journal of political science*, *48*, 445–461.

Martin, L. W., & Vanberg, G. (2008). Coalition government and political communication.

Martin, L. W., & Vanberg, G. (2011). *Parliaments and coalitions : The role of legislative institutions in multiparty governance*. Oxford University Press.

Martin, L. W., & Vanberg, G. (2014). Parties and policymaking in multiparty governments: The legislative median, ministerial autonomy, and the coalition compromise. *American journal of political science*, *58*, 979–996.

Martin, L. W., & Vanberg, G. (2020a). Coalition government, legislative institutions, and public policy in parliamentary democracies. *American Journal of Political Science*, *64*, 325–340.

Martin, L. W., & Vanberg, G. (2020b). What you see is not always what you get: Bargaining before an audience under multiparty government. *American Political Science Review*, *114*, 1138–1154.

Matthews, F. (2019). Formal rules, informal norms and the everyday practice of coalition governance. *British Journal of Politics and International Relations*, *21*, 148–168.

McCubbins, M., & Lupia, A. (1998). *The democratic dilemma:lupia: Can citizens learn what they need to know?* Cambridge University Press.

McEnhill, L. (2015). Unity and distinctiveness in uk coalition government: Lessons for junior partners. *The Political quarterly (London. 1930)*, *86*, 101–109.

Meyer, T. M., Sieberer, U., & Schmuck, D. (2023). Rebuilding the coalition ship at sea: How uncertainty and complexity drive the reform of portfolio design in coalition cabinets. *West European politics*, *ahead-of-print*, 1–22.

Moury, C. (2012). *Coalition government and party mandate : How coalition agreements constrain ministerial action*. Routledge.

Müller, W. C., Bäck, H., & Hellström, J. (2024). Coalition dynamics: Advances in the study of the coalition life cycle. *West European politics*, *47*, 1–30.

Müller, W. C., & Fallend, F. (2004). Changing patterns of party competition in austria: From multipolar to bipolar system. *West European politics*, *27*, 801–835.

Müller, W. C., & Strøm, K. (2000). *Coalition governments in western europe*. Oxford University Press.

Nannestad, P., & Paldam, M. (2002). The cost of ruling. In H. Dorussen & M. Taylor (Eds.). Routledge.

Narud, H. M., & Valen, H. (2010). Coalition membership and electoral performance. In K. Strøm, W. C. Müller, & T. Bergman (Eds.). Oxford University Press.

Naurin, E. (2014). Is a promise a promise? election pledge fulfilment in comparative perspective using sweden as an example. *West European Politics*, *37*, 1046–1064.

Oktay, S. (2022). *Governing abroad*. University of Michigan Press.

Orwell, G. (1947). *Politics and the english language : An essay*. Typophiles.

Patty, J. W. (2016). Signaling through obstruction. *American journal of political science*, *60*, 175–189.

Pedersen, H. H. (2010). How intra-party power relations affect the coalition behaviour of political parties. *Party Politics*, *16*, 737–754.

Pedregosa, F., Varoquaux, G., Gramfort, A., Michel, V., Thirion, B., Grisel, O., Blondel, M., Prettenhofer, P., Weiss, R., Dubourg, V., Vanderplas, J., Passos, A., Cournapeau, D., Brucher, M., Perrot, M., & Duchesnay, E. (2011). Scikit-learn: Machine learning in Python. *Journal of Machine Learning Research*, *12*, 2825–2830.

Peterson, A., & Spirling, A. (2018). Classification accuracy as a substantive quantity of interest: Measuring polarization in westminster systems. *Political analysis*, *26*, 120–128.

Plescia, C., Ecker, A., & Meyer, T. M. (2022). Do party supporters accept policy compromises in coalition governments?

Plescia, C., & Kritzinger, S. (2022). When marriage gets hard: Intra-coalition conflict and electoral accountability. *Comparative Political Studies*, *55*, 32–59.

Plescia, C., Kritzinger, S., & Spoon, J.-J. (2022). Who's to blame? how performance evaluation and partisanship influence responsibility attribution in grand coalition governments. *European journal of political research*, *61*, 660–677.

Powell, G. B. (2000). *Elections as instruments of democracy : Majoritarian and proportional visions*. Yale University Press.

Proksch, S.-O., & Slapin, J. B. (2015). *The politics of parliamentary debate : Parties, rebels and representation*.

Riker, W. H. (1962). *The theory of political coalitions*. Yale University Press.
Rodriguez, P. L., & Spirling, A. (2022). Word embeddings: What works, what doesn't, and how to tell the difference for applied research. *The Journal of politics*, *84*, 101–115.
Roozendaal, P. V. (1997). Government survival in western multi-party democracies the effect of credible exit threats via dominance.
Saalfeld, T. (2013). Economic performance, political institutions and cabinet durability in 28 european parliamentary democracies, 1945–2011. In W. C. Müller & H. M. Narud (Eds.). Springer.
Saalfeld, T. (2010). Institutions, chance, and choices: The dynamics of cabinet survival. In K. Strom, W. C. Müller, & T. Bergman (Eds.). Oxford University Press.
Sagarzazu, I., & Klüver, H. (2017). Coalition governments and party competition: Political communication strategies of coalition parties. *Political Science Research and Methods*, *5*, 333–349.
Schermann, K., & Ennser-Jedenastik, L. (2014). Explaining coalition-bargaining outcomes: Evidence from austria, 2002-2008. *Party Politics*, *20*, 791–801.
Schleiter, P., & Bucur, C. (2024). Assembly dissolution powers and incumbency advantages in coalition formation. *West European politics*, *47*, 192–215.
Schleiter, P., & Evans, G. (2021). Prime ministers, the vote of confidence and the management of coalition terminations between elections. *West European Politics*, *45*, 528–549.
Seyd, B. (2002). *Coalition government in britain : Lessons from overseas*. UCL, Constitution Unit.
Slapin, J. B., & Proksch, S.-O. (2008). A scaling model for estimating time-series party positions from texts. *American journal of political science*, *52*, 705–722.
Slapin, J. B., & Proksch, S.-O. (2021). Theories and empirical applications of legislative debate. In H. Bäck, M. Debus, & J. Fernandes (Eds.). Oxford University Press.
Sozzi, F. (2023). Controlling uncertainty in coalition governments. *Government and opposition (London)*, 1–18.
Spoon, J. J., & Klüver, H. (2017). Does anybody notice? how policy positions of coalition parties are perceived by voters. *European Journal of Political Research*, *56*, 115–132.
Strøm, K., Bergman, T., Müller, W., & Nyblade, B. (2010). Conclusion: Cabinet governance in parliamentary democracies. In K. Strøm, W. Müller, & T. Bergman (Eds.). Oxford University Press.
Strøm, K., Müller, W. C., & Bergman, T. (2010). *Cabinets and coalition bargaining : The democratic life cycle in western europe* (Paperback [correc...). Oxford University Press.
Swaan, A. D. (1973). *Coalition theories and cabinet formations : A study of formal theories of coalition formation applied to nine european parliaments after 1918* ([1st ed.]). Jossey-Bass.
Tavits, M. (2008). The role of parties' past behavior in coalition formation. *The American political science review*, *102*, 495–507.
Thies, M. F. (2001). Keeping tabs on partners: The logic of delegation in coalition governments. *American journal of political science*, *45*, 580–598.
Thomson, R., Royed, T., Naurin, E., Artés, J., Costello, R., Ennser-Jedenastik, L., Ferguson, M., Kostadinova, P., Moury, C., Pétry, F., & Praprotnik, K. (2017).

The fulfillment of parties' election pledges: A comparative study on the impact of power sharing. *American Journal of Political Science*, *61*, 527–542.

Timmermans, A., & Andeweg, R. B. (2000). The netherlands: Still the politics of accommodation? In W. C. Müller & K. Strøm (Eds.). Oxford University Press.

Toshkov, D., Mader, L., & Rasmussen, A. (2020). Party government and policy responsiveness. evidence from three parliamentary democracies. *Journal of public policy*, *40*, 329–347.

Tsebelis, G. (2002). *Veto players* (1st ed.). Princeton University Press.

Velden, M. V. D., & Schumacher, G. (2015). *Drifting apart or sticking together?*

Vodová, P. (2021). Issue salience and pledge fulfilment in minority and majority coalitions: Evidence from the czech republic. *East European Politics and Societies*, *35*, 1068–1089.

Warwick, P. (1992). Ideological diversity and government survival in western european parliamentary democracies. *Comparative political studies*, *25*, 332–361.

Warwick, P. (1994). *Government survival in parliamentary democracies*.

Whitaker, R., & Martin, S. (2022). Divide to conquer? strategic parliamentary opposition and coalition government. *Party politics*, *28*, 999–1011.

Winter, L. D., & Dumont, P. (2010). Uncertainty and complexity in cabinet formation. In K. Strøm, W. C. Müller, & T. Bergman (Eds.). Oxford University Press.

Yu, B., Kaufmann, S., & Diermeier, D. (2008). Classifying party affiliation from political speech. *Journal of information technology politics*, *5*, 33–48.

Zubek, R. (2015). Coalition government and committee power. *West European Politics*, *38*, 1020–1041.

Zubek, R., & Klüver, H. (2015). Legislative pledges and coalition government. *Party Politics*, *21*, 603–614.