



Getting into bed with the enemy

Exploring trends and effects of coalition congruence
in Western Europe 1945-2015

Neil Dullaghan

Thesis submitted for assessment with a view to
obtaining the degree of Doctor of Political and Social Sciences
of the European University Institute

Florence, 9 April 2021

European University Institute
Department of Political and Social Sciences

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Abstract

Over the last seventy years Europe has seen government authority decentralised to subnational bodies, offering up new arenas for political contestation. At the same time, the typical cleavages in society that provided solid bases of support for political parties have crumbled, leaving parties in search of new alliances to obtain governing power. Political parties find themselves caught between the desire to get into office in as many government authorities as possible and the desire to present a coherent brand to the public, as signalled by their coalition partner choices. This research project stands at this tense intersection of interests and provides new clarity to the historical record and some exploratory lines of inquiry into the effects of this dynamic.

The existing work on measuring the extent to which regional and national governments mirror each other is investigated and critiqued in order to develop a new operationalisation of coalition congruence that is amenable to large-N research. On the basis of this new measure, the historical record from 1945 to 2015 of coalition congruence in nine Western European countries (Austria, Belgium, Denmark, Germany, the Netherlands, Norway, Spain, Sweden, and Switzerland) is mapped out in order to identify broad trends running alongside the wider trend of dealignment from party politics. Following this, a number of hypotheses about the institutional determinants of congruence and effects of congruence on party perceptions are explored. The number of regional governments that cut across the government-opposition divide has been on the increase in Europe, especially so in some countries, and these cross-cutting governments appear to play a role in party attachment, but not through the causal mechanism of shifting left-right perceptions of party brands as expected by the literature. This project adds a new operationalisation of a concept, a new empirical dataset, extends the branding model of partisanship to the subnational level, and contributes to moving forward the fourth wave of coalition studies.

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Introduction

August 2019 saw the collapse of Western Europe's "first-all populist government" in Italy, and then the unlikely agreement to form a coalition government between staunch rivals, the establishment Democratic Party (PD) and the populist Five Star Movement. Party leaders were not shy in acknowledging this strange state of affairs. "*In difficult times like these, shunning our responsibility to have the courage to try this is something we cannot afford*" was the justification offered by the Secretary of the PD (BBC News 2019). Anti-establishment activists from the Five Star Movement threatened to desert the movement if its leaders entered a coalition government with the PD, part of the "establishment" that Five Star campaigned to remove from power. One supporter wrote on the Facebook page of prominent Five Star party politician Luigi Di Maio "*You are digging a grave with the PD, we will lose millions of votes and mine will be the first*". This spoke to the wider disbelief amongst the public at such strange bedfellows coming together, even in a country which has seen the party system mutate, collapse, and reform numerous times over the past decades.

The coming of such counterintuitive coalitions has long been heralded by esteemed political scientists like the late Peter Mair:

"the blurring of differences between the traditional parties can be seen in the gradual broadening of the range of coalition alternatives, and the development of a pattern of promiscuity in the formation of governments which seems to belie any sense of substantive and enduring inter-party conflicts" (Mair 1995, 49)

Mair noted that the major parties across Europe had been seemingly working their way down the list of all possible combinations of governing coalitions, casting aside traditional rivalries and taboos of the party system. While Mair appeared to be focused on promiscuity in terms of the number of different parties involved, other scholars of European politics argue that the “division into government and opposition is the most important cleavage in all European Parliaments” (Raunio 2011) and this dichotomy extends upwards to the European level (Auel and Benz 2016; Dullaghan 2016; Holzacker 2002, 2005; Miklin 2013).

This dynamic has become even more complicated when extended downwards in countries where regional governments can offer opportunities for parties to experiment with novel coalitions. This may offer more fertile ground for evidence of a trend towards coalition heterogeneity than the national level. For example, since the 1960s there have only been 4 combinations of parties in the German national government. Even in 2005 when federal elections left parties without three of their usual four combinations, parties opted for the one tried and tested partnership remaining rather than experiment with a new coalition. However, on the regional level there have been at least 10 different coalition combinations that cut across traditional ideological and historical divides. Importantly, these coalitions often crossed the government-opposition divide bringing together parties which at the national level were in direct competition and rivalry. This political competition increasingly occurs in multi-level settings worldwide (Thorlakson 2006, 37), providing parties with choices: *“to step in government at only one level or to stay in opposition at both? To opt for a single consistent strategy or to try out various, but sometimes conflicting, coalition formulae?”* (Ştefuriuc 2009, 2). For example, in 1999 in Belgium the leading party in Flanders did not take the initiative to form a regional government because it would have been isolated in that government while another party opted for isolation at the regional level, trying to play with the possibilities it offered, which

resulted in the party splitting apart between the governing and the opposition strategy (Deschouwer, 2009). The comparison between governing coalition compositions across levels is what is known in political science literature as *congruence* and the formation of regional governments containing parties in government and opposition at the national level has been referred to as *cross-cutting congruence* (Däubler and Debus 2009). These are key terms that will be employed in this project.

There is a growing body of research extending coalition formation theories to multi-level contexts which has found evidence that there is a tendency to seek congruence between national and subnational governments (Olislagers and Steyvers, 2015; Back et al. 2013; Ştefuriuc, 2009a,2009b). There has been a great deal of theorising about when and why parties opt for different subnational coalition strategies. Yet, there has been a relative paucity of research into actually validating these trends empirically and understanding what effect, if any, the abandon of coalition traditions in favour of ‘experimentation’ has had on the public. Identifying the patterns and effects of coalition congruence across multi-level systems is the purpose of this research project.

The crux of this project lies at the intersection of the public reaction to counterintuitive coalitions and the new dynamics that are presented by multi-level politics. The cornerstone of this research is the creation and analysis of a novel dataset of regional and national governments in nine Western European countries over a seventy year time span, supplemented by a descriptive analysis of how the composition of these governments differs from their respective national governments. This multi-level dataset will then be set against hypotheses from the literature on coalition formation and coalition effects generated primarily at the national level. It thus stands poised to contribute a valuable set of tests and empirics to what has been dubbed the “fourth generation of coalition studies”(Albala and Reniu 2018).

Specification of the major concept of congruence

A great deal of this project centres on the concept of coalition congruence which has only recently begun to approach the forefront of comparative political science in the last few years (Albala and Reniu 2018; Bäck et al. 2013a; Dandoy and Schakel 2013; Falcó-Gimeno and Verge 2013; Giannetti and Pinto 2018; Martínez-Cantó and Bergmann 2020; Schakel and Massetti 2018; Tronconi 2015). Unfortunately, over the decades despite only a small number of scholars working on the subject and addressing the same set of cases, the concept has been stretched and blurred to the extent that one cannot begin such a project without a rather detailed elaboration and specification. A full discussion of the myriad of terms, definitions, and operationalisations is presented in the next paper of this project. One hopeful impact arising out of this project is to consolidate and sharpen the concept of coalition congruence and offer a public dataset. This may produce something that future researchers can use and cite without needing to dive back into the intricate debates over the idiosyncrasies of previous usages. For the moment, I provide a clear explanation of what congruence is in this project, and what it is not.

In this project I am focused on a very limited specification of the major concept of *vertical coalition government congruence* which throughout this project I will refer to as coalition congruence or just congruence as a shorthand. A useful synonym for congruence in this project could be match, mirror, or similarity. I utilize a three-level categorical operationalization, which maps the extent to which the regional government party composition is matched by the national government party composition:

- **Congruence** (*all parties in the regional government have a match in the national government but not necessarily vice versa i.e., a single party regional government can be congruent with a multiparty national government*)

- **Incongruence** (*none of the parties in the regional government are represented in the national government*)
- **Cross-cutting** (*one party in the regional government does not have a match in the national government i.e., cuts across the government-opposition divide*).

I focus on composition, not competition. I measure which parties are represented in government. This project is *not* measuring *party competition*. I am not measuring which parties win and lose in the electoral process and comparing electoral fortunes between national and regional elections. While I study the public's partisan attachment and the left-right perceptions of parties, which surely factor into the electoral fortunes of parties and thus make them worthy of interest and study, the election is not the outcome explored here.

I focus on governments, not parliaments nor party systems. This project is *not* measuring the composition of national and regional *parliaments*. In fact, one of the major critiques of the existing large-N comparative works on congruence is that it measures parliaments when it elsewhere discusses *governments*. Nor am I studying party systems and how many parties are represented in the regional and national political arena. The domain sits squarely on the party membership of governments.

I focus on parties, not seats or cabinet ministers. I focus only on the composition, in terms of which parties are represented in the government, and not on the number of seats held by governing parties nor which cabinet positions they hold. Other studies discussed below have looked at the number of seats in order to provide a continuous measure to make statistical regressions or graphical illustration easier. However, for reasons detailed in a paper below, I do not believe this is a useful approach, especially for the questions addressed in this research project.

I focus vertical congruence, not horizontal congruence. I am focused on the similarity between the composition of a regional government and its respective national government, but not the similarity between one regional government and another regional government, or between one national government and another either in time or space. The data I have collected in this project will allow future research to analyse this dyad though. I also focus primarily on whether the regional government matches the national government, not vice versa. Part of this is practical, as it's not obvious how a system using a subnational government as the reference point could be scaled. The literature also indicates a top-down situation in terms of political agreements: the regional level is constrained by national level and regional coalition formation may actually respond to stimuli that are to be found at the national level, justifying use of the national level as the reference point (Ștefuriuc, 2013, 2; 2009, 99). Since this project is mostly interested in how the public react to congruence, it seems prudent to look at the national-regional dyad as this is most likely to be salient and observed between the individual's own regional government and their national government. There is little reason to think an individual pays much attention to the composition of the regional government in a neighbouring province or state, never mind how this neighbouring government relates to the national government in terms of party composition.

This narrow focus is for both theoretical and practical reasons. Expanding the scope to parliamentary competition or party competition would take this project into the field of electoral studies. Shifting from or including horizontal congruence would take me away from plausible hypotheses and causal mechanisms of the branding model of partisanship that I detail below. Looking at the allocation of cabinet portfolios would move into a field of micro-level political bargaining which seems tangential to the multi-level dynamics of interest here. Furthermore, inclusion of any one of these additional features would

increase the data collection effort by an order of magnitude and would be better suited to the work of a team of researchers in a multi-year project.

As noted above, the salient issue for elected parties is whether to step into government or not, rather than whether to compete for parliamentary seats at all. I think it reasonable that parties can be assumed in most cases to want to achieve representation in the parliamentary authorities available to them. If one were to compare if the same parties were represented in national and regional *parliaments* this would offer some insight into the electoral strength of a party and how static a party system is but would not offer the detail needed to understand the power dynamic of interest here. The composition of parliaments is more likely to be caused by the public than to affect the public, as the electorate are the ones who have delivered these parties to office. On the other hand, while the public clearly has a role in which parties govern by way of granting some parties a majority share and others a minority share of the vote, there is a layer of agency bestowed on the parties in choosing what governments to form, and this plausibly can create behaviour for the public to react to.

In some ways I capture parliamentary compositions because by measuring the parties in government I am *de facto* also implying which parties are in opposition. However, I do not include a deliberate measurement of all parties and code whether they are in government or opposition, nor whether they received enough votes to be represented in the parliament at all. This clearly is important, as it is impossible to have a government matching across regional and national levels if none of the parties in one parliament even received enough votes to be in the other parliament. This admittedly presents a problem in the project in that it is hard to disentangle whether congruence is low because parties chose to experiment rather than trust their usual partners, or whether they had no choice because their usual partners did not make it into parliament. However, there is always a

choice as to whether one chooses to form a government with a novel partner or to not form a government at all, so the project can capture this aspect.

Why is studying coalition congruence important and how will this research contribute to debates in political science?

Multi-level governance and coalitions are a fundamental part of modern political science. Federations and variously decentralised states exist on every occupied continent covering as many as 37 countries and 3 billion people (personal calculation). Subnational governments are responsible for roughly 40% of total public expenditure (OECD 2016) and are constituted in many places by regional direct elections. A trend of partisan dealignment has broken stable cleavage-based party attachment and 89 countries now have the sort of proportional representative electoral systems that tend to produce coalition governments. Only 47 out of 337 elections in Europe held between 1945 and 2009 led to absolute majorities of single parties (Döring and Hellström 2013). These two trends have led to the fact that in the 1990s the major parties in Germany (CDU-CSU and SPD) could form single party majorities or coalitions with their preferred partners in 16 regional legislatures, but this had declined to only four by 2018 (Linhart and Switek 2018). The importance of studying this topic thus stems firstly from the scope of the world which the concept covers. The fourth wave of coalition studies that this project seeks to contribute to brings together two of the most studied issues in political science: coalitions and federalism. The vertical link between the two, congruence, has been called the “missing piece” in the coalition studies literature (Albala and Reniu 2018).

If we understood coalition congruence what real-world impacts would we be able to analyse? Coalitions affect a diverse array of outcomes from fiscal policy (Bäck and Lindvall 2015; Perotti and Kontopoulos 2002; Roubini and Sachs 1989), electoral

accountability (Duch, Przepiorka, and Stevenson 2015; Fisher and Hobolt 2010; Tavits 2007) to government duration (Bergman, Ersson, and Hellström 2015; Warwick 1994). Coalitions are worse at fulfilling campaign promises than single party governments (Costello and Thomson 2008; Mansergh and Thomson 2007; Thomson et al. 2012) and appear to alter the public's image of political parties (Adams, Ezrow, and Wlezien 2016; Fortunato 2015; Fortunato and Stevenson 2013; Spoon and Klüver 2017). Additional levels of coalition government then may increase the complexity and potential for impediments to policy making through the additional veto players.

Studies on multi-level coalition formation have found that coalition congruence is a significant predictor: parties pursue congruent coalitions across levels (Bäck et al. 2013a; Giannetti and Pinto 2018; Olislagers and Steyvers 2015; Pappi, Becker, and Herzog 2005; Ştefuriuc 2009d, 2009a). Why and what effects in the real world would we expect to see from varying degrees of congruence? Coordination between different levels of government is important for the effective rollout and functioning of policy. The “party on the ground” operating in subnational arenas depends heavily on the “party in central office” operating at the national level (R. Katz and Mair 1994), and congruence can facilitate greater coordination and access between the two (Giannetti and Pinto 2018; Olislagers and Steyvers 2015). Incongruent coalitions have been linked to inter-party and intra-party conflict and deadlock in joint-decision making policy areas, especially when subnational authorities can exercise veto power (Bolleyer 2006; Bräuninger and König 1999; Hough and Jeffery 2006; König 2001; König, Blume, and Luig 2003; Thorlakson 2006). The risk of subnational government termination is related to varying levels of vertical congruence (Martínez-Cantó and Bergmann 2020). Ideological differences between national and subnational governments has been shown to predict education expenditures and general macroeconomic outcomes (Kleider, Röth, and Garritzmann 2018; Rodden and Wibbels 2002). Such complexity plausibly makes it harder to expect a

responsive voter model to work (Lodge, Steenbergen, and Brau 1995) , as accountability becomes blurred. Mismatching coalitions across multi-level systems may create obstacles to democratic representation due to competing and contradictory policy compromises and the strain on the cognitive abilities of voters to make beneficial political choices (Däubler, Müller, and Stecker 2020). Public approval may be harder to win in situations of cross-cutting congruence where a national governing party must argue that its coalition partner is necessary to roll out some policy goal, but a different coalition partner is a better choice at the regional level (Ştefuriuc 2009d). If conflicting coalition patterns across multi-level systems distort or disillusion the public as to the policy positions of parties, it will likely affect their vote choice and political behaviour.

Why do non-congruent situations exist then? A first obvious answer is because the parties represented in government on one level have not been able to form a matching government on another level. Electorally, this could be due to the governing party being punished via second-order effects or due to regionalised voting behaviour (Dandoy and Schakel, 2013; Reif and Schmitt, 1980). Asymmetrical party systems operating simultaneously across levels can also add or subtract coalition partners. The institutional architecture of a country (such as powerful regional executives or differing election systems and calendars) may lead to more independent regional governance and lower congruence, as could a less consensual style of democracy (Schakel and Massetti, 2018). The structure of political parties could also mean the subnational branches of the party are freer to make non-congruent coalition choices, especially if policy preferences differ between regions (Olislagers and Steyvers, 2015; Carty 2010; Katz and Mair, 2002). Subnational party members may be primarily, even personally, interested in office-seeking while national party leaders may be more concerned with coordination and party branding. There are instances where a party will deliberately choose to allow an incongruent or cross-cutting coalition form rather than a congruent one. Belgian

congruence has been extensively studied and provides a clear example. The Christian Democrats opted out of joining a coalition government in Flanders in 1999 for fear of forming a coalition with one or more parties that would govern against them at the federal level where they would be in opposition. Meanwhile, the VU party in the Flemish regional coalition opted not to be added as a member of the national coalition for strategic reasons and thus created a cross-cutting coalition (which eventually led to the party splitting in two). The Green party opted to stay in the Flemish coalition even after it was left out of the national coalition in 2003, in order to keep the government running, maintain financial resources, and to keep some presence in political debates (Deschouwer 2009a). In some cases, the pursuit of coherent coalition partners across governing levels may streamline party politics at the expense of region-specific coalitions with high expected value for and alignment with citizens. However, in most cases there are benefits to forming congruent coalitions when electoral results allow it. One key question in this project then is, if coalition congruence is a desired outcome as the literature suggests, how often does reality diverge from this goal?

Yet if the empirical data on congruence is flawed or absent then we cannot have confidence in any claimed effects or patterns, and it increases the chances that research resources are misallocated and democratic failures are occurring. A major contribution of this project is a three-level categorical operationalization of coalition congruence and the construction of a new dataset using Western European countries. When looking at the long list of definitions and operationalisations of the concept on pages 37-38 of this project, one may reasonably ask why this project develops yet another. As the next paper makes the case, there are major flaws in the existing operationalisations either in their formulae or their applicability beyond the cases from which they were derived. This project consolidates the advantages of the previous iterations (the categorical nature, the three-level structure, the importance of cross-cutting coalitions, the focus on

governments) and omits the problem areas (the wrong unit of analysis, mathematical formulae with dubious implications, continuous indexes without much added value).

Even the calculation of a well-known and well-studied concept such as party system fragmentation has been done in many different ways using different measures, and articles have been published for thirty years on the matter. No one has claimed that the analysis was unnecessary because a calculation or operationalization exercise has already been done. Readers wondered whether the new analysis was better or not. I believe the alternative operationalization of congruence developed here is meaningfully different and has advantages over the existing ones in analysing the empirical record and any impacts congruence may have on policy making and party attachment. Therefore, this project should be read with interest by those who lend credence to belief that we are in a fourth wave of coalition studies. This project looks at a wide cross-sectional scope of congruence studies by covering the congruence of each region in nine Western European countries 1945-2015. The dataset created using this measure contains 5,739 observations of regional governments across 146 regions.

This project will engage in a dialogue with the existing theories of democracy and party politics. It joins a recent literature that tests whether elite-driven processes have consequences for mass politics and whether citizens are responsive to a core dimension of party behaviour: coalition making. How citizens form and update their perceptions of political parties is key to discussions of how democracies do and should function, because voters form positions based on party images, and use these perceptions in decision-making. This research also questions the assumption of parties as unitary actors in decentralised systems. It poses a counter-intuitive problem for parties: if seeking to join a coalition at a subnational level compromises the party's brand, then it could mean that pursuing office-seeking strategies now undermines electoral victories tomorrow. Is the

party leadership at the national level able to constrain and direct regional branches of the party to opt for coherent branding rather than office-seeking? This could help to explain the loss of post-coalition votes, and the prevalence of minority governments in some settings where parties prefer to informally support a cabinet rather than enter a potentially damaging non-congruent coalition.

If everyone in political science read this dissertation and believed it, what would that change? Would this dissertation suggest that we should do something different or think about something differently? Revealing the magnitude and trend of multi-level coalition patterns may tell us that concerns about the fraying of traditional alliances were overblown or right on the mark, it may add to the theory of change where parties experiment at the subnational level with novel coalitions, it may tell us more about how often parties tend to favour office-seeking even at the expense of policy compromise. Effects on party attachment may point to an additional variable to be included in models of dealignment and understanding political party behaviour. All of these things would impact the allocation of researcher resources in the future, provide justification or pause for expanding the scope of research beyond the “methodological nationalism” of the past (Jeffery and Wincott 2010), and offer insights for policy makers and political operatives. Ultimately, this project may in fact find limited or no evidence of the trends or effects of congruence that has been speculated on in the past. In this case the project would suggest that scholars have erred in attaching importance to coalition congruence as one of the main pillars of the new wave of coalition studies. However, political scientists like Dalton and Mair have long been worried about dealignment from parties in democracies (R. J. Dalton 1984; Lupu 2011; Wattenberg 1996) because partisanship may have positive effects such as institutionalising the party system, stabilising elections, and consolidating new democracies (Kayser and Wlezien 2011; Mainwaring and Scully 1995; Rose and Mishler

1998). Therefore, any force that may further erode party attachment is worth investigating.

Structure, Aims, and Expectations

The goals of this project are fivefold: to provide a new measure of coalition congruence for use in comparative work; to chart the historical patterns of coalition congruence across Western Europe; to identify the institutional variables associated with the presence of cross-cutting coalitions; to test whether coalition congruence has affected mass rates of partisanship; and to test whether changes in coalition congruence shift the public's placement of parties on the left-right spectrum. The project consists of five separate research papers in the style of academic journal articles. This is a high bar to clear and creates the potential for some duplication of language in framing each paper. However, it seems to be a worthwhile endeavour to both streamline what is often a tedious process of converting a long form manuscript into digestible papers and to push each study towards a coherent self-sustained work. It is hoped these papers can appear in journals covering a range of topics from comparative politics, methodology and even reaching beyond political science to the major publications of data-driven historians. In what follows I will briefly discuss the expectations of what this project is and what it is not aiming to explore.

Given the vast literature on party system change, mass partisanship, coalition formation, and voter perceptions, the task of pulling out any two factors and analysing their relationship is a daunting task. To attempt to identify a relationship in a field of inquiry where so many competing hypotheses exist is a hard test to pass even when a real and substantial effect exists. We start with an assumption then that for any effect of coalition congruence to appear in the data, amidst these larger forces and noise, it would suggest

a surprising and potent effect that has gone understudied in the literature. The three papers testing the significance of associations make use of theories and hypotheses grounded in the national coalition literature and keep an open exploratory mind with regard to many of the lines of inquiry presented, having often very little prior expectation about how these hypotheses should play out when taken to the subnational level.

The data is confined to Western Europe in the time from 1945 to 2015 for a number of reasons. The population of relevant cases are clearly multi-level political systems. I adopted a broad view of multi-level settings which includes federal and decentralised systems and will often use the term of “regional government” to refer to a wide range of elected subnational authorities: regional and provincial parliament executives, county councils, and mayorships. The universe of multi-level systems constitutes at least 25 federations in addition to roughly 12 variously decentralised states (Own calculations; Griffiths et al. 2005; Watts 1999). However, it has not been the intention here to create a global map of coalition congruence. Rather than select the most pronounced federal or decentralised countries from across the globe and lump them together, selecting only European countries provides controls in terms of similarities of welfare capitalism, political culture, parliamentary systems, and common historical origins (Detterbeck 2012, 50). It was also useful to focus on democratic systems with direct elections to subnational authorities given that much of the underlying importance of this literature rests on the relationship between the public and the parties. It seemed likely to be the case that in countries where citizens have a say in regional governments that have some actual powers, they will be more knowledgeable about them and thus see stronger effects from party actions that may affect perceptions of these parties. In Europe we can observe a plethora of thriving regional democracies. The time period of the last 70 years allows us to couch the research amidst a longer downward trend in party alignment and upward trend in regional competencies. However, due to a combination of historical realities and

gaps in the data, the period of 1945-1970 covers a smaller set of countries than the period afterwards. It also seems plausible that the value of information cues like coalition signals are more important in contexts of high uncertainty, such as newer democracies where party brands are not well established. However, due to limited data availability it was not possible to extend the analysis to Eastern Europe at this time.

When taking into account all the subnational units, years, and national-regional dyads, this population of cases was of course too large for case-oriented comparison. Therefore, when testing associations with institutional variables, mass partisanship, and left-right party placement the aim was to use large-N statistical methods and compliment any findings with small-N descriptive analysis. Throughout the project I attempt to counter many unfortunate conventions and problems in the political science discipline that plague researchers caught up in the “pressure to publish”. In so far as is possible, *p*-values very close to conventional standards of 0.05 will not be used as a crutch to lean on in lieu of more definitive supportive evidence against the null hypothesis. This too often leads even established scholars down the road of “p-hacking” their way to statistically significant results, which cannot be replicated or are of little substantial significance. I will, insofar as possible, instead emphasise effect sizes, relating them to known benchmarks from which we can draw some sense of how realistic any results I find are likely to be. Where possible I will also report the power of any tests and attempt to control for the problems of multiple comparisons. And of course, I will report all tests conducted as part of this research, not shying away from “non-findings”, especially when they counter any narratives in the existing literature that claim an effect does exist. Given the rather iterative and exploratory nature of the project it has not been possible to produce a pre-registration of intended hypotheses and tests.

The rest of the project will be organised as follows.

Project outline

Chapter 2: A Methodological Critique

While the *fourth wave* is a term coined by Albala and Reniu (2018) they were by no means the first to draw attention to the subnational level in political science (Bolleyer 2006; Detterbeck 2012; Hopkin and Houten 2009; Thorlakson 2006). However, the literature lacks large-N comparative work, and where such work has been produced the measures of coalition congruence that exist (Albala and Reniu 2018; Bäck et al. 2013a; Dandoy and Schakel 2013) are often flawed and so varied that they leave little room for studies to talk to each other in a constructive manner. The first chapter here then consists of a methodological paper that conducts a historical review of the literature on coalition congruence, pointing out the flaws in each and offering a new tool for comparativists.

The intention at the outset of the project was to use and possibly expand the existing data on congruence to test theories of partisanship. However, upon investigation the literature was revealed to be a messy patchwork of conceptual stretching and misuse as well as poor operationalizations of supposedly the same idea of congruence. A full specification of the major concept is made in this paper which distinguishes it from party competition, parliamentary congruence, horizontal congruence, and ideological congruence. I sought to distil and consolidate the core features of the concept into one that can be easily operationalised in the future for other large-N comparative work. This process arrives at a three-level categorical variable that was stated briefly above for ease of understanding. It should be clear then that this project is not about whether parties are opting for a greater variety of coalition partners at an increasing frequency, but rather whether the strategies they adopt (whether new or traditional) are coherent across levels of government.

The four papers following this all make use of this measure of congruence as a key variable, both as an outcome and predictor. The thread running through these papers is that there are two general problems running side by side. One is the problem of changing, even weakening, party attachment. The other is a problem of changing structures of the political system that have opened up new arenas for coalition politics and competition. Exploring how these two trends interact to tease out any significant associations is the ambitious aspiration of this project.

Chapter 3: A New History

The expectation in building a coherent picture of the historical record was that it would reveal the type of increasing coalition incongruence hinted at by Peter Mair's observation of coalition promiscuity, since an increase in coalition experimentation increases the chance that a government on one level cuts across the government-opposition divide on another. In the early decades of the time period under study, one would reasonably expect incongruence and cross-cutting to be less frequent. During this earlier golden age of parties, society was supposedly more neatly divided by strata such as class, religion, career, and location, all of which provided parties with natural constituencies averse to feeling attachment to, never mind voting for, alternative parties. Equally, this made it easy for parties to maintain separate brands. These parties worked towards the goal of governing by themselves and only forming coalitions with those aligned with their own. Therefore, instances of cross-cutting were expected to be few and far between. On the other hand, there was an expectation to see much greater variation in congruence, if not an increasing trend of cross-cutting, in more recent decades. This was supposed to be due to the combination of two factors: first, an opening up of more and more arenas of

subnational government for party competition; and second, a breakdown in the party system as traditional parties split up into rival factions or merged and new parties emerged based on principles beyond the classical divisions of class and religion, such as the environment and immigration. This period has also been marked by the formation and dissolution of electoral pacts and alliances, which have often been less stable than committed to. Party organizations have also changed from central top-down structures to more loose groupings of politicians and factions often competing against each other (Aarebrot and Saglie 2013; Clark 2012; Fabre 2008, 2011; Faucher 1999; Harmel and Tan 2003; Hopkin and Paolucci 1999; Ibenskas and Sikk 2017; R. Katz and Mair 1994, 2002, 2009; R. S. Katz and Mair 1995; Kelly 1991; Scarrow 1993). With more arenas for competition, less stable party systems, and more autonomous subnational party units there was a reasonable expectation that parties would struggle to maintain a coherent coalition strategy. The hypothesis presented in this paper is that cross-cutting coalitions have become more common over time.

Chapter 4: Institutional determinants

The following paper then investigates whether variations we see around this expected increasing trend of cross-cutting coalitions can be associated with, at least in part, the power structures and rules of the game within a political system. Characteristics of a multi-level system that make regional governments more powerful players in the decision-making process increase the stakes and heighten the risks of finding oneself locked out of government. Therefore, the greater the authority of the regional government, the more likely parties may be to join the government—even if it means partnering with a member of the national opposition. This should also be the case in consensus democracies where norms around compromise are common. The timing of elections is also hypothesised to influence rates of congruence. When subnational

elections occur all at the same time they more closely resemble a national contest and so present opportunities for voters to punish government parties as the second order effects model would expect (Reif and Schmitt 1980). The success of opposition parties should then lead to lower rates of congruence, though it is unclear how this should affect the ratio of cross-cutting to fully incongruent governments. A similar dynamic is expected when regional elections fall further away from national elections. On the other hand, it is unclear how strong the incentives are to reform an incumbent government even when it cuts against a new national partnership. Finally, aspects of a region that make it more distinct may also increase the chances that there are incentives for the regional branch of a state-wide party to craft a unique strategy and for regionalist parties not represented in the national government to come to power. The more distinct regional identities and successful regionalist parties a country has, the less congruence with the national government we expect.

Chapter 5: The Moving Mover

Another factor Peter Mair identified was the general partisan dealignment witnessed in Europe. This process has seen larger and larger shares of the population not only break with stable historical, cultural, and familial patterns of party identification, but abandon party identification completely. It is not obvious in which way the direction of causality goes when it comes to coalition heterogeneity and partisanship. One could plausibly imagine that the loosening and breakdown in party identification by the electorate has created space for less traditional parties to win at the ballot and for traditional patterns of party system hierarchies to be overturned. This then would provide greater opportunities and pressures for parties to form new coalitions. On the other hand, it could be that deliberate strategies by political parties to experiment with novel coalitions distort the image of the party and make it harder for a voter to identify with it. This paper falls

more on the latter side by adopting a recent addition to the party identification literature that bridges the gap between spatial/valence models and social identify models: the *branding model* (Lupu 2011, 2013). This model is described in detail in the paper; for the sake of simplicity, it can be briefly summarised here as taking the party itself as a variable and arguing that actions taken by parties that contradict prior public assumptions can weaken attachment. This model is, for the first time, extended to the subnational level where even more contradictions to assumptions about party's positions can be presented by their different coalition strategies. When a country is characterised by low congruence and high cross-cutting, and major parties clearly do not have coherent multi-level coalition identities, the odds of voters becoming confused and detached may increase. The hypothesis being tested here is that lower rates of congruence are associated with lower party attachment.

Chapter 6: More Choices that Matter

The final paper in this series continues with the underlying assumption of the branding model and the literature on party behaviour as signals to the electorate. The left-right spectrum is the primary dimension individuals use in imagining a party's brand. This suggests then that any actions that weaken a party's brand should also have a detectable effect on the left-right placement of parties. It is plausible that a centre-right party forming a coalition with a far-right party may actually make the former seem more left-leaning in comparison. On the other hand, a right-wing party partnering with a left-wing party might signal a high degree of policy compromise to the voter and suggest that its conservative credentials are not as strong as previously believed. This paper explores at the party-level whether changing coalition partners affects the public's left-right assessment of a party as well as partisan attachment, and crucially whether this assessment differs according to whether the public finds itself in a cross-cutting or

congruent region. Even if a right-right coalition makes one of them appear more right-leaning than the other to voters, at least if this pattern is consistent at both the national and regional level, it speaks to some coherence in the party strategy. For those who observe a conflicting pattern between the governments, their placement of the party on the left-right spectrum is expected to differ—though it is unclear at the outset in which direction this more plausibly would fall. An attempt was made to test this with a large-N dataset. Problems in the associated survey data and sample size, however, meant that instead the paper focuses on the cases of Austria and Germany, which are expected to be a best case for detecting an effect if one does in reality exist.

Conclusion

At the end of this project, based on the expectations outlined here, we will be presented with a number of new and interesting findings. The first should be a fresh look at the history of Western European coalition congruence and a new tool for comparativists to use in Europe and to replicate for other geographical domains. Will the patterns suggested by small-N case studies be borne out when expanded to a larger set of countries and a longer time span? If cross-cutting has not increased, even in a time of increasing dealignment and multi-level politics we may need to reassess the weight we place on parties' office- and policy-seeking strategies, especially when it comes to coalition formation. If the expected increasing trend is evident, then it confirms earlier hypotheses and provides us with a new trend to incorporate into our models. Second, we may have identified some associations with institutional variables that make cross-cutting coalitions more or less likely and could be suggestive of what trends we are likely to see in the future. Finally, we may have picked up evidence of an effect of congruence on perceptions of parties amidst the wider trend of dealignment and party system change. This could add supportive evidence for the branding model of partisanship and

shift more scholars into adopting this framework. It would also suggest that political parties need to pay attention to their subnational coalition strategies.

A Methodological Critique of Coalition Congruence

Abstract

The concept of coalition congruence has been studied for decades but in ways that have stretched the concept and employed operationalisations that weaken the strength of comparative work. In this piece a critique of the existing large-N measures of coalition congruence is lodged. The existing categorical variables, dissimilarity indices, and continuous measures omit important features of the core concept and rest on mathematical formulae divorced from the empirical reality of government formation. Instead, a categorical measure is developed that is more amenable to cross-national comparisons by dividing cases into congruent, incongruent, and cross-cutting.

Introduction

In this article I present a critique of the existing large-N operationalisations of the concept of congruence and develop an alternative, which I argue here is more useful. In particular, I focus on the one of the few large-N studies of congruence, by Dandoy and Schakel in their 2013 book *Regional and national elections in Western Europe. Territoriality of the vote in thirteen countries* and highlight flaws in their operationalisation of *government congruence*. In brief, the dissimilarity index which they employ to measure the similarity between government composition at the national and regional level provides numerical values with flawed substantive meaning. Such is the extent of the problems arising out of their measure that it risks leading researchers astray and will produce models with low or false levels of predictability.

I will demonstrate, through some hypothetical mathematical examples and drawing on the empirics they use in their book, that their measure does not provide an accurate

picture of government congruence over time and is in fact very misleading. It is telling that in their follow-up book, *Regional and National elections in Eastern Europe. Territoriality of the vote in ten countries*, they drop the measure of *government congruence*. I also review some other operationalisations in the literature that too face issues in translating the concept of congruence into a reliable measure. I then present an alternative conceptualisation and operationalisation of *government congruence* and demonstrate how that presents a more accurate picture of the historical record that should offer greater levels of predictability and confidence for future researchers.

[A brief note on congruence datasets](#)

Political science is often hamstrung by the absence of large continuous data-generating institutions that those in the field of Economics benefit from, such as the World Bank. This puts even more of an onus on those in political science who attempt to provide large datasets for the field to get it right, since it may come to be relied on by many other researchers in the absence of alternatives and updates. As will be described in more detail below, the study of congruence has evolved and grown from simple categorical classifications of single countries to large-N continuous indices. Across these measures is the central task of attempting to understand how true the prediction of coalition experimentation, especially with regard to the government-opposition divide, has held up since the decentralization of government powers to subnational units across European polities really kicked off in the 1970s. As this is also at the heart of this research project, I looked to the literature in search of a ready-made dataset of congruence. What I found were only two examples of large-N studies of congruence in Europe, both of which suffer from problems of unnecessary granularity and lacking mathematical rigour. Efforts were made to contact the creators of such datasets, who in some cases provided the data for

replication and in other cases were incorrect in positing that their data was publicly available.

The dissimilarity index approach

The first and major dataset on incongruence comes from Dandoy and Schakel in their 2013 book *Regional and national elections in Western Europe. Territoriality of the vote in thirteen countries*. I provide a summary of the aims of their book and how they investigate incongruence to set the ground for the discussion to follow.

Dandoy and Schakel aim to explore regional electoral behaviour, by demonstrating that these elections have their own significance, distinct from the national scene. They argue that rather than being simply Second-Order-Elections (SOE) - where individuals cast their votes in regional elections to punish the national government (Reif and Schmitt 1980) - the electorate in fact chooses who to vote for based on who they wish to see in their regional authority, or for distinct regional reasons. To explore this, they look for evidence of second order effects and what they call 'regionalised election behaviour'. Each country expert in the book discusses five outcome variables that the authors consider to be the most important elements of electoral behaviour in regional elections: 1) the congruence between the regional and the national *vote*, 2) the turnout, 3) the change in vote shares between regional and national elections, 4) *government congruence*, and 5) the electoral strength of non-state-wide parties (NSWPs) (2013, p.18–24). (The fourth is clearly the one of most relevance for my research project). Second order effects are sought in data on voter turnout and the electoral fortunes of parties between national and regional elections, corresponding to the low turnout and government party loss predictions of the SOE theory. To assess regionalised election behaviour, they look at government congruence and the strength of NSWPs.

Throughout, they use measures of *congruence* (which is the similarity between national and regional aspects, be it vote share, turnout, or government composition). For example, for the congruence of the vote they employ a dissimilarity index. It is the sum of the absolute differences between the regional vote share and national vote share for each party and divided by 2 to avoid double counting.¹ This is given by the expression:

$$\frac{1}{2} \sum_{i=1}^n |X_{iN} - X_{iR}|$$

where X_{iN} is the percentage of the vote won by party i in a given national election, N , and X_{iR} is the percentage of the vote won by party i in the closest (in time) regional election, R , to the national election in question. This calculation produces a value that ranges from 0% (complete congruence or similarity) to 100% (complete incongruence or dissimilarity). They then go on to argue that voters are faced with voting for their preferred party in a regional election (regionalised voting behaviour) or voting against the national government party (second-order behaviour).²

To investigate whether voters treat regional and national governments differently and distinctly, they use *government congruence*, which they define as “the extent to which regional and national governments are similar”³ and state that “the extent and frequency of government congruence is an indirect measure of regionalised voting behaviour in

¹ The reason for this is explained further in their follow-up Eastern Europe book: “divided by two to avoid double counting (one party’s gain is another party’s loss)” (Schakel 2017, 7).

² Noting that this is conditioned on the structure of the party system and the role of the regional government.

³ Available in the codebook https://www.arjanschakel.nl/images/countryexcelfiles/00-Codebook_country_excel_files.pdf

regional elections". This is of primary interest to my research, and where most of the problems with their index lie.

They then give an example of *incongruence* in the UK as: a Labour party government in Wales (the regional government) and a Conservative party government in Westminster (the national government). They note that this would not allow them to distinguish between a voter signalling preference for Labour in the regional government or opposition to Conservatives in national government. Therefore, instead one can look at cases of *congruence*. The authors provide the example of the Labour party being present in both the Welsh regional government and in the national UK government in Westminster. They imply that this must be evidence of regionalised voting behaviour because according to SOE theory the Labour party at the regional level should have been punished because it is in government at the national level. Instead, it is in the regional government, so this must be an expression of a regional preference for Labour.

They state that government congruence is "the *extent* to which regional and national governments are similar" (my emphasis added) and operationalise it also as a dissimilarity index like before but using the seat share (number of seats in parliament) rather than vote share of each governing party in National Government (NN) compared to Regional Government (RR). Though not explicitly stated, one can derive from a later example that it is given by an expression such as:

$$\frac{1}{2} \sum_{i=1}^n |X_{iNN} - X_{iRR}|$$

where X_{iNN} is the percentage of the *parliamentary seats* held by party i in a given national government, NN, and X_{iRR} is the percentage of the *parliamentary seats* held by party i in the

closest (in time)⁴ regional *government*, *RR*, to the national election in question. In Table E of their codebook,⁵ shown below as Table 1, they offer an example of the dissimilarity index in action:

Table 1. Example 1: Different coalition partners for Party A

Table E: government congruence for one region and three parties

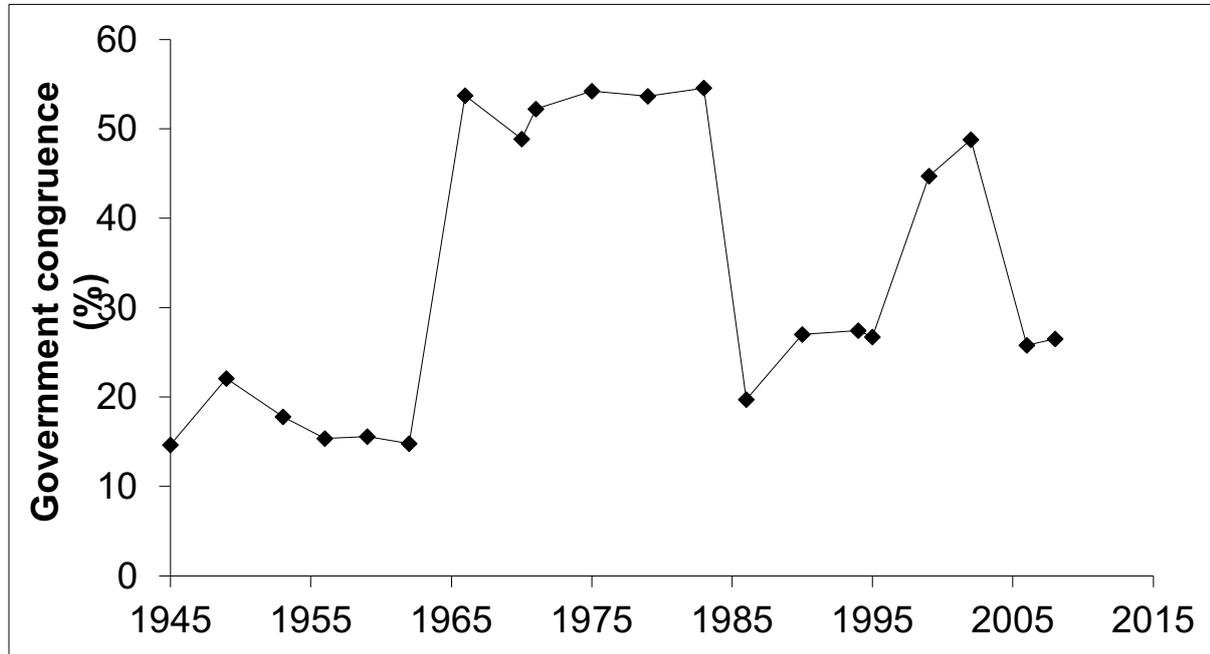
	National		Regional		Dissimilarity
	Seats	% coalition	Seats	% coalition	
Party A	45	75%	45	75%	$ 75\% - 75\% * \frac{1}{2} = 0\%$
Party B	15	25%	0	0%	$ 25\% - 0\% * \frac{1}{2} = 12.5\%$
Party C	0	0%	15	25%	$ 0\% - 25\% * \frac{1}{2} = 12.5\%$
Total seats	60	100	60	100	Sum 25%

From the above we can see that they add the number of seats in parliament held by the governing parties on each level, national and regional, and from this calculate the “% coalition” held by each party. Then they take the absolute difference between the regional percentage of a coalition held from the national percentage of a coalition held for each party and divide by 2. This provides their measure of dissimilarity/incongruence, and they sum the incongruence scores for each party to come up with a score for the region for the year of observation. They then take the dissimilarity score for each yearly National-Regional dyad (the 25% in the example above) and make an average for each national election year to build a picture over time. Here is what it looks like for Austria:

⁴ It is unclear from their descriptions and even their data how often the regional election was before or after the national election, how they made the decision when they were equidistant, or even their theoretical justification for this.

⁵ Accessible at https://www.arjanschakel.nl/images/countryexcelfiles/00-Codebook_country_excel_files.pdf

Figure 1. Government Incongruence for Austria 1945-2008



Note: Incongruence is 100% and Congruence is 0%.

A problematic approach

It may already be apparent to some readers that this design is flawed. I believe it falls short both in capturing the reality and also even matching their own conception of government congruence. The index collects information on parliamentary seats, not government power and classifies cases which intuitively are high incongruence as low incongruence and vice versa.

Firstly, from their theoretical framework what does their operationalisation example tell us? In Table 1 above (Table E in their codebook), Party A is in both regional and national governments, therefore this must be evidence of regionalised voting behaviour as in the Wales-Westminster/Labour-Labour example they give earlier. But Party B is not in the

regional government, so it could be either punishment against the national government or a dislike of Party B in that region. They do not provide clear examples of what congruent and incongruent coalitions look like in multi-party governments and what that implies for regional electoral behaviour. Even the very idea of the numerical continuous index goes against their originally stated binary classification of congruent and incongruent situations. Therefore, we are left to infer the meaning behind their index for multi-party coalitions.

Secondly, given their focus on *governments*, the use of *seat shares of governing parties* to measure “% coalition” is somewhat misleading. It is more accurate to say that they are measuring the similarity between the composition of regional and national *parliaments*, but only looking at the governing parties. In many of the subnational executives we examine there is a clear distinction between the parliament and executive and the number of seats does not simply map on to each other. Presumably the only percentage of government power that one cares about is which party or parties attain a plurality or majority, but in any case, parties represented in government inherently have power. If instead we think of *congruence* as binary (either the regional government is the same as the national government or it is not, which they themselves express in their UK example) then clearly their operationalisation example the codebook is a case of *incongruence*; both parties in the national government (Party A and B) are not both represented in the regional government. Party A is in government at both levels and takes up the same percentage of coalition seats, but it has completely different coalition partners. What we have from their example is 25%. Party B is not even in government in the regional level, so how can we even think of the situation as 25% incongruent when the regional government has 0% of one of the two parties at the national level?

Thirdly, the key criticism I lodge, which undermines their approach, is the substantive differences of similar scores. We see two scores of 12.5% in the codebook example which clearly tell us very different things. Party C and Party B are both as dissimilar, as incongruent as each other, but substantively this is very different since Party C has not made it into national government and Party B not into regional government. This is the major point that I will spend significant effort to convince the reader is important.

Hypothetical Mathematical examples

To illustrate the problems with their index approach, I offer some hypothetical examples, styled on their example above. I omit the seat share figures for the sake of simplicity and clarity.

Let's imagine that Party A actually got 100% of the seats in a regional government/parliament:

Table 2. Example 2: Party A majority at regional level

	National	Regional	
	% coalition	% coalition	Dissimilarity
Party A	75%	100%	12.50%
Party B	25%	0%	12.50%
			SUM:25%

Let's next imagine we include Party C and Party D, and instead of 25% at the regional level Party C gets 10% and Party D gets 0% at the national level and 15% at the regional level.

Table 3. Example 3: three party coalition at regional level

	National	Regional	
	% coalition	% coalition	Dissimilarity
Party A	75%	75%	0%
Party B	25%	0%	12.50%
Party C	0%	10%	5%
Party D	0%	15%	7.50%
			SUM:25%

Now Party C and D are both *not* in government at the national level but have two different scores. Is this useful? They are both 100% not in government at the national level. It is under-theorised and underspecified why the exact percentage of the parliamentary seats held by government parties at the regional level matters. In all these examples the overall incongruence is the same (25%), but surely, we would not say that the extent to which regional and national governments are similar is the same in both these examples, they are clearly very different combinations, with different implications for the ease of policymaking and the compromises parties need to make.

Let's now imagine the effect of compiling these into an average dissimilarity score for each observed year, as they do. Let's imagine a state with three regional governments.

In the first year, all regional governments are composed as in the codebook example. Taking the mean of the three index scores, as they do, we arrive at a score of 25% incongruence for that year. In the following year, each of the examples above (Tables 1-3) is a regional government, with the national government still a Party A-Party B

coalition. Again, we arrive at a mean score for the year of 25% for this year. Finally, in year 3, all regional governments have a Party A government, as in Table 2, and again we arrive at 25%. We now have three years of 25%, which on their measure would imply pretty consistent low incongruence/high congruence. Yet we know that these are three vastly different years substantively.

The problem with their score is perhaps best exposed in coalitions where one party massively dominates its partners. In Table 4 below, we have 0% incongruence (100% similarity), which makes intuitive sense since the same parties are in power in both national and regional governments. However, in Table 5 the same parties are in government, but the index score suggests a vastly more incongruent government. A similar problem is evident in Tables 6 and 7; the composition of the governments in terms of which parties are involved is the same, but one score suggests a high level of dissimilarity and the other a low level. Further examples based in the empirics themselves are discussed below, but before that I will propose an alternative approach to compare it to.

Table 4. Example 4: Three party coalition

	<i>National</i>	<i>Regional</i>	
	% coalition	% coalition	<i>Dissimilarity</i>
Party A	90%	90%	0%
Party B	5%	5%	0%
Party C	5%	5%	0%
			SUM:0%

Table 5. Example 5: Three party coalition (alternate)

	<i>National</i>	<i>Regional</i>	
	<u>% coalition</u>	<u>% coalition</u>	<i>Dissimilarity</i>
Party A	5%	90%	42.50%
Party B	90%	5%	42.50%
Party C	5%	5%	0%
			SUM:85%

Table 6. Example 6: Alternate bases of power

	<i>National</i>	<i>Regional</i>	
	<u>% coalition</u>	<u>% coalition</u>	<i>Dissimilarity</i>
Party A	20%	80%	30%
Party B	75%	15%	30%
Party C	10%	5%	2.5%
			SUM:62.5%

Table 7. Example :7 Alternate bases of power, with one major party.

	<i>National</i>	<i>Regional</i>	
	<u>% coalition</u>	<u>% coalition</u>	<i>Dissimilarity</i>
Party A	75%	80%	2.5%
Party B	20%	15%	2.5%
Party C	10%	5%	2.5%
			SUM:7.5%

Solutions: A Categorical Approach

It is one thing to criticize, quite another to propose a better alternative. In order to come to a better operationalisation of the concept of government congruence I must first review

the other conceptualisations in the literature. Table 8 contains a representative, though not exhaustive, sample of definitions of coalition congruence, along with some definitions of related terms lower down the ladder of abstraction where a more general term was absent. Where no overarching concept *coalition congruence* existed, I instead focused on the authors' definitions of the *incongruent* or *congruent* to reverse engineer their understanding of the unnamed *congruence*. In bold are the common properties.

Table 8. A list of definitions of congruence

Term	Definition	Author
<i>Incongruent coalitions</i>	where one or more of the Lander governments is of a distinctly different pattern compared with the Bonn coalition of the time	(Roberts 1989a, 101)
Double symmetry	symmetry one finds between the coalition composition patterns between the regional and federal levels , and as a consequence, also between the executives of the different regions and communities	(Dumont and Winter 1999)
Congruence	making of similar coalition governments in the federal and regional arenas.	(Swenden 2002, 80)
Coalition congruence	refers to the situation in which the party composition of a subnational government is overlapping with that of the national government.	(Ștefuriuc 2009e, 4)
Congruence	a characteristic of a government coalition in relation to another coalition. It is the situation in which the party composition of a sub-national government coincides with that of the national government.	(Ștefuriuc 2009d, 94, 2009c)
Coalition congruence	the situation in which the party composition of a regional government is identical to that of the national government.	(Ștefuriuc 2009a, 108)
Congruence of the coalitions	the relation between governments at different levels	(Deschouwer 2009a, 14)

<i>Incongruent coalitions/Congruent Coalitions</i>	coalitions that contain federal government and federal opposition parties at the same time/ subnational coalitions whose partisan composition overlaps with the federal government	(Däubler and Debus 2009, 74, 77)
<i>Congruent coalitions</i>	whether or not the party composition of governments is the same at the subnational and the national level . . . the compositions of the federated entities (regions and communities) coalitions replicate the federal coalition.	(Régis, Dumont, and Verzichelli 2011, 6)
<i>Congruent coalitions</i>	coalitions at the regional level whose partisan composition corresponds with the one of the national government	(Bäck et al. 2013a, 371)
Coalitions' congruence	whether the local coalitions are a copy of their provincial coalition.	(Olislagers and Steyvers 2015, 210)
Congruent coalition	Allied parties in one scenario are similar to those in another district	(Albala and Reniu 2018, 206)
Partisan alignment	when the largest government party is the same at the national and the regional level	(Kleider, Röth, and Garritzmann 2018, 7)

Following the *Geistesgeschichte* of the concept as Sartori suggests we can see that Roberts (1989a) was the earliest to give a term to this concept. Although he never actually used the term 'congruence', instead opting for the more limited 'incongruent', he is usually cited as the originator of the concept of congruence by later authors. Riker and Schaps(1957) introduced a similar concept before Roberts of *partisan harmony*, a measure that "takes into account the extent to which subnational chief executives share the party affiliation of the federal chief executive" but this is not often credited in the congruence literature. Roberts' definition is clearly couched in the German referent he is studying and so clearly cannot be used as the general definition, unless one wants to constantly

refer to the coalition in Bonn! There was a surge of the use of the concept in 2009 likely due to Ştefuriuc's numerous papers offering multiple articulations.

Turning to extracting the characteristics or properties from these definitions, some common characteristics seem to be: 1) a Multi-level system, 2) Government composition, 3) and a relationship in the composition of governments across these levels. There are some collective and individual ambiguities here. Some definitions include very specific types of levels (Lander, regions, provinces, communities, federal), while others opt for a more general encompassing 'sub-national' and 'national', and others use both.

In contrast to the declarative definition, which focuses on the defining properties, an operational definition is the measurement of these properties. As Sartori states, "operational definitions are required to state the conditions, indeed the operations, by means of which a concept can be verified and, ultimately, measured" (Sartori 1970, 1045). Instead of 'social class' or 'congruence', we have indicators relating to income, occupation, education level in the former, and party composition, government type, overlap, and governance levels in the latter. In order to follow what Adcock calls the move from systematized concept to indicators, I need to define which measurement operations exist and which properties lend themselves to actual measurement.

In the original operationalisation by Roberts, a coalition dyad is judged to be incongruent if there is a difference "in some significant aspect" (Roberts 1989a, 106) between the coalitions. This aspect is the inclusion or exclusion of a party or parties. Unless the parties in a government exactly match those on the other side of the dyad, it is judged to be incongruent. In the German case that he examines the FDP-SPD coalition in the Land government of Hamburg is incongruent with the FDP-CDU coalition in the Bundestag. Roberts' view on congruence is displayed in Figure 2.

Figure 2. Coalition Congruence according to Roberts

Congruent		
	National	Regional
Party A	Yes	Yes
Party B	Yes	Yes

Incongruent		
	National	Regional
Party A	Yes	Yes
Party B	Yes	No
Party C	No	Yes

Incongruent		
	National	Regional
Party A	Yes	No
Party B	Yes	No
Party C	No	Yes
Party D	No	Yes

Across Ştefuriuc's 2009 papers she extends the measure of congruence beyond the dichotomous congruent/incongruent operationalisation into a three-level measure. 'Full Congruence' is an identical copy of parties in both regional and central governments. 'Full incongruence' is when there are no matches at all; the parties in office at the subnational level are in opposition or not represented at the national level. The addition of Ştefuriuc is 'partial (in)congruence' where "some, but not all, of the governing parties at one level

are also governing at the other level”.⁶ This would be the case for the Party A-Party B/Party B-Party C dyad that Roberts measures as simply incongruent. Deschouwer also employs Ștefuriuc’s operationalisation classing Party A in *partial (in)congruence* as a ‘bridging party’ and Party B and Party C as ‘isolated’ parties, while in *Full congruence* all parties are bridging parties (Deschouwer 2009a, 15–16). However, in the rest of Deschouwer’s analysis he never identifies an empirical case of partial (in)congruence, instead offering only a case of ‘perfectly congruent’ with one party “disturbing” this congruence.

Däubler and Debus also employ a similar 3-level measure from ‘full congruence’ to ‘full incongruence’, but instead of ‘partial (in)congruence’ they refer to a ‘*cross-cutting coalition*’: “a coalition including both federal-level government and federal-level opposition parties”(2009, 79) which in their description is an incongruent coalition. In fact, Debus (alongside Bäck , Müller & Bäck) goes on to argue that “what matters is not so much that a regional-level coalition has exactly the same composition as the national-level government (‘full congruence’ as defined by Ștefuriuc), but rather that the coalition does not cut across the national government–opposition divide.”(2013a, 371) In their operationalisation of the concept into a variable, they initially created a dummy variable to indicate a cross-cutting coalition and critique the use of a simple Fully Congruent-Fully Incongruent dummy variable as obscuring a large number of cross-cutting coalitions by lumping them into these two broad buckets.

The authors later amended it to create a continuous measure, which stands as the only other metric to be used to measure congruence across a number of countries in a single study. It is the “share of the parliamentarians who would have to leave a possible

⁶ Ștefuriuc, ‘Government Formation in Multi-Level Settings’, 96.

coalition in order for the coalition no longer to be cross-cutting” (Bäck et al. 2013a, 377). For example, a German dyad of a CDU-FDP coalition in a Lander and a CDU-FDP coalition at the federal level would score 0 on Däubler and Debus’s measure (perfect congruence) because 0% of parliamentarians need to leave the regional coalition for it to match the national one. A regional coalition formed evenly between FDP and REP, the latter holding no seats in the national coalition and 50% of the seats in the regional government, is coded 0.5 since half of the seats are held by a party that was not governing at the national level. Although they don’t specify, one can imagine perfect incongruence here would be a coalition coded as 1, where 100% of the parliamentarians would have to leave to allow for the possibility of a non-cross-cutting coalition. However, actually if one looks at the data they include, situations where there are no national government parties in the regional government and thus 100% of parliamentarians would need to leave, is coded as 0. Their logic implies that a score of 1 is impossible and at best one could have a regional coalition where 99 seats were held by the opposition and 1 seat held by a national government party, yielding a score of 0.99.

One might argue that this is only a minor issue, but it causes two problems. Firstly, at a mathematical level since regression models will assume the data is not truncated at .99 and make predictions at a value, 1, that the authors have not offered a definition for. It also implies a non-interval scale as the difference of 0.01 between 0.99 and 1 does not have the same meaning as the same difference between 0.39 and 0.40. Secondly, one could surely make a case that 0.5, 0.51, and 0.49 are meaningfully different as they would define whether the national governing parties have majority control within the regional government, but it’s not clear what causal mechanisms would be affected by a 0.01 change from 0.39 to 0.40. The authors do not discuss these possibilities or how their theories of change are affected by a unit change in their measure. Their resulting regression finds that coalitions with higher cross-cutting scores (more seats held by

national opposition parties) are less likely to form that congruent ones, but they do not present effect sizes or predicted probability curves, so we do not know if their relationship is linear nor if the change in probability for each unit is meaningful. In fact, Bäck et al. even cite the argument by Leiserson (1968) “that it is not the strength of each political party, measured by its seat share in the parliament, which is decisive, but rather the absolute number of parties involved in the coalition formation game” (2013, 370). And yet their own measure takes the seat share rather than number of parties.

This measure is also employed by Schakel and Massetti (2018). However, the authors do not engage in a discussion of why this continuous measure is better than a three-level categorical approach. Söderlund (2005) seems to use the number of seats in government and percentage of seats in parliament to arrive at a measure of congruence: if subnational and national governments are not dominated by the same party or parties. One could have a regional government with all the national parties and just one additional opposition party or four and depending on the distribution of seat shares the final cross-cutting score could be the same. Again, this measure appears to add more detail but in fact obscures it. However, the issue of crossing the government opposition divide is a crucial insight as it is both more of more practical significance for most researchers and realistic of the world we observe. Linhart (2018) goes to the other extreme and considers all coalitions congruent (even a regional coalition of two national opposition parties) except for a cross-cutting coalition.

Consider cases where not all the national government parties are represented in the regional government, but neither are any opposition parties represented either. Imagine a 3-party coalition at the national level, and 2 of those parties hold power in a regional government. This is technically a case of partial incongruence since there is not an exact match (one of the national parties is in opposition at the regional level), however when

the national government is interacting with the regional government it does not have to take into consideration the preferences of its national opposition. We can imagine this being the case where the missing national coalition partner simply didn't make it into the regional parliament, or where 2 of the national level parties were sufficient to form a regional government without need for a surplus party (although evidence from Belgium suggests the latter is rare). On the other hand, where a 2-party national government finds itself dealing with a regional government that has the same two parties but also a third partner that sits in opposition at the national level, the negotiations may be more difficult. This would also be the case for the tricky issue of regionalist parties, which might never obtain power in the national government because of their limited geographic appeal but still represent both an additional party to negotiate with and potentially a public signal of policy compromise beyond that already signalled at the national level. This would also imply that the national level parties were prioritising office-seeking goals at the possible expense of greater policy or party brand alignment. This could be an example of parties "experimenting" with novel coalition arrangements at the regional level. Albala & Reniu also made this conceptual journey, however they decide that if a region cuts across the government-opposition divide it is incongruent even though it includes a matching member of the national government (Albala and Reniu 2018, 5). Furthermore, they make a distinction between a party that is not in government and a party that is in opposition which seems more nuanced than useful.

Therefore, we can consider whether a regional government has none of the national parties in office, has only national parties in office (if not all of them), or has an opposition party in addition to some (if not all) national parties. Similarly, we can imagine a situation where one party appears in both national and regional governments but has a different partner in each level. This leads to the development of a new three-level categorical operationalization:

- **Congruence** (*all parties in the regional government have a match in the national government but not necessarily vice versa i.e., a single party regional government can be congruent with a multiparty national government*)
- **Incongruence** (*none of the parties in the regional government are represented in the national government*)
- **Cross-cutting** (*one party in the regional government does not have a match in the national government i.e., cuts across the government-opposition divide*).

This measure surely also obscures some degrees of difference between cross-cutting coalitions. However, it does not claim to offer more detail and nuance as other measures do, and it does not seem plausible to design a measure that captures this level of detail and still offers a relatively simple metric for analysis. Here I scale up the calculation nationally to measure the percentage of regions in a country in a given year that are incongruent, congruent, or cross-cutting.

Comparing coalition congruence

In the above I have argued that the existing operationalisations of coalition congruence are inadequate for the job of measuring the difference in party composition between regional and national governments. Without an accurate picture of which regional governments match the national governments and how widespread mismatching is across a country we cannot reliably make predictions or even descriptions of the challenges parties face in multi-level governance or the consequences for voter perceptions of party images in the face of coalition compromises. For the sake of clarity, let me restate the reasons for doubting the existing measures succinctly here.

- Two scores on the dissimilarity index can mean very different things substantively: 25% could refer to a situation where a regional government has one of the national government coalition parties or none of them (see Table 2 and Table 3).
- Two similar situations can have opposite scores on the dissimilarity index: when both national and regional governments are composed of exactly the same parties, the scores could be 0% or 85% (see Table 4 and Table 5), the same as scores for when the two governments have almost none of the same parties.
- The dissimilarity index approach measures the seat in *parliament* but makes claims about the dissimilarity of *government* creating a gap between the underlying concept and the operationalisation.⁷
- Roberts (1989) and Albala and Reniu (2018) use a two-level categorical approach that ignores partial congruence and the issue of coalitions cutting across the government-opposition divide.
- Ştefuriuc (2009) and Deschouwer (2009) add partial incongruence as a third level to their categorical approach but ignore the cross-cutting distinction and consider single party governments to be partially incongruent.
- Bäck et al. (2013) and Schakel and Massetti (2018) add cross-cutting but their continuous measure implies substantive meaning to a 1 unit change that has no plausible repercussions and is underdefined at the tail end of the measure.

⁷ A note on my calculations- Dandoy and Schakel only make publicly available the final dissimilarity score for each region, but not the seat share figures used to calculate them. Therefore, sometimes it is unclear whether they indeed used parliament seat shares or other government seat share measures such as the seats in Austrian state parliaments for provincial governor, the provincial governor deputy and 5 regional councillors. It is also unclear at times whether the national government composition is being compared to the following or previous regional election.

- My proposed three-level categorical approach offers clear demarcation between levels, focuses squarely on governing parties, includes cross-cutting coalitions, and provides substantive meaning for each level of the measure.

To make the case stronger, let us examine some hypothetical and real-world examples and compare how each of the measures fair in offering a consistent, meaningful, and useful interpretation of the data. If one was interested in the two issues that coalition congruence is supposed to have implications for (governance, party conflict, accountability), what would each of these measures suggest we think?

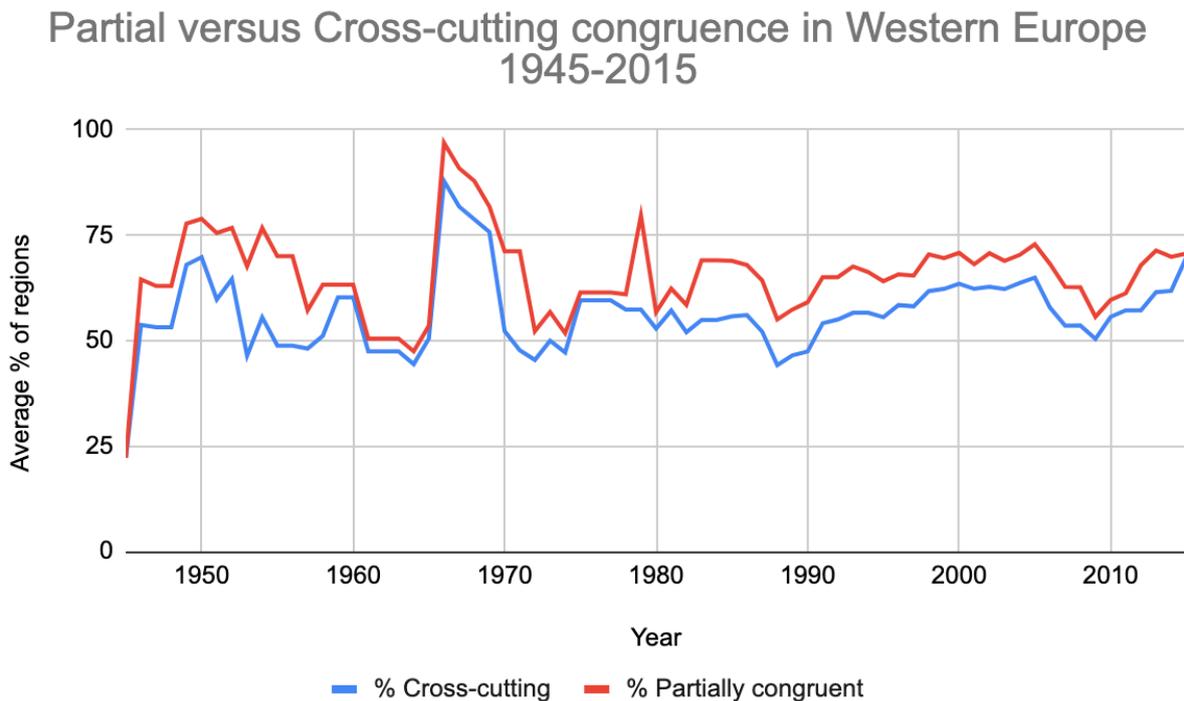
First, take two of the hypothetical examples from above (Table 2 and Table 3) where we have A) a single party regional government held by a member of the two-party national government and B) a multiparty regional government held by one of the two national coalition members plus two national opposition parties. In A) the national government can expect to deal relatively easily with the regional government since it is only a matter of intra-party bargaining across levels, and the congruent party may have to explain why it did not invite the national partner into a regional coalition, but at least did not invite a member of the national opposition. In B) the national government must go beyond intra-party bargaining and bargain with two opposition parties when working with the regional government, and the party may also have to justify to the public and its voters why it joined a regional government with opposition parties. In A) Roberts would consider it incongruent, Ştefuriuc partially incongruent, Bäck et al. would give it a score of 0 and call it congruent, while Dandoy and Schakel would call it 25% dissimilar. In my measure it would be congruent. In B), Roberts would most likely call it incongruent, Ştefuriuc partially incongruent, Bäck et al. cross-cutting with a score of 0.25 and Dandoy and Schakel would again call it 25% dissimilar. I would call it cross-cutting.

Roberts calls both regional governments incongruent despite A) not crossing the government-opposition divide, and B) having still some representation from a party in the national government. Roberts' would suggest governance between the two levels will be near impossible and imply no discontinuity in party branding. Ştefuriuc calls both partially incongruent not distinguishing between cases of cross-cutting and not. Thus, some difficulties in governing may be implied even when they do not exist (in the case of A). Dandoy and Schakel call both 25%, and like Ştefuriuc do not offer a way to distinguish between the two. A lay reader might assume this means that in both cases one quarter of the regional government is not matched in the national government, implying a significant but equal obstacle to governance in both cases. Bäck et al. come the closest to my measurement, referring to A) as congruent and B) as cross-cutting, but they additionally assign scores of 0 and 0.25. A reader may think that governance and branding in the case of A are not an issue but in B there are obstacles, and the size of this obstacle is in some way signalled by 0.25. As I argued above, this additional data is superfluous without a clear theoretical and causal meaning linking all values on the scale. Clearly a 0.26 increase between 0.25 and 0.51 is not the same as between 0.51 and 0.77. The former moves the national opposition into the majority, but in both the national opposition still retains a voice as the minority. I think there is a reasonable case to be made that a Congruent/Cross-cutting/Incongruent categorisation provides enough differentiation between conditions to be of substantial meaning for most studies, without offering researchers the false premise of precision with underdeveloped continuous values.

We can also compare European average trends. Ştefuriuc and Deschouwer employ a "partially incongruent" distinction, but do not separate cross-cutting coalitions from congruent single-party coalitions as I do. Taking the average percent of regions that were either cross-cutting or partially congruent, we can see differences between the two trends

across Europe over 70 years. By lumping the two categories together, the “partially incongruent” approach inflates the level of incongruence in Europe, and substantially diverges (more than 15% difference) in the 1950s and early and late 1970s. There is also more than 10% difference for much of the 1980s and 1990s.

Figure 3. Comparison of cross-cutting and partial congruence

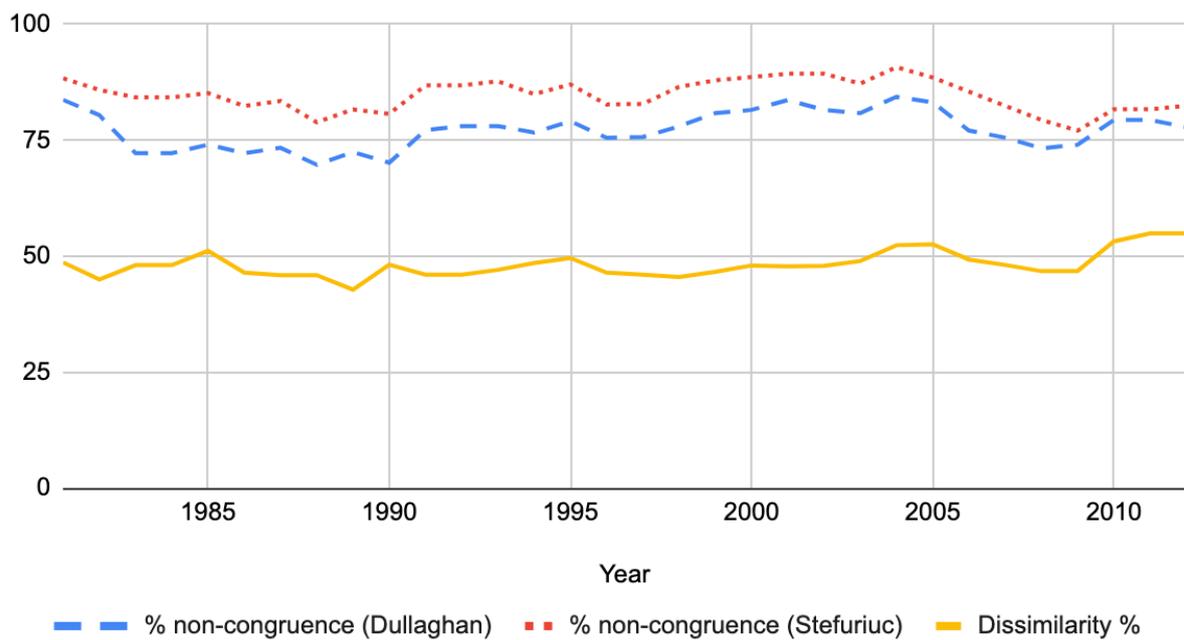


If we compare the dissimilarity index to the share of regions that are *not* congruent (the combination of incongruent and partially congruent or cross-cutting) we can see that the dissimilarity index substantially overestimates the level of congruence across Europe. This suggests that the mathematical irregularities and issues I detailed lean towards lower dissimilarity percentages when a categorical look at the data would suggest the situations are in practice not congruent. Thus, the formulas appear to be misclassifying a

lot of incongruence as congruence. The difference between the partially incongruent and cross-cutting measures are far less different, though again we see the effects of characterising single party regional governments as not fully congruent leading to a higher percent of non-congruence. What specific situations appear to create this divergence?

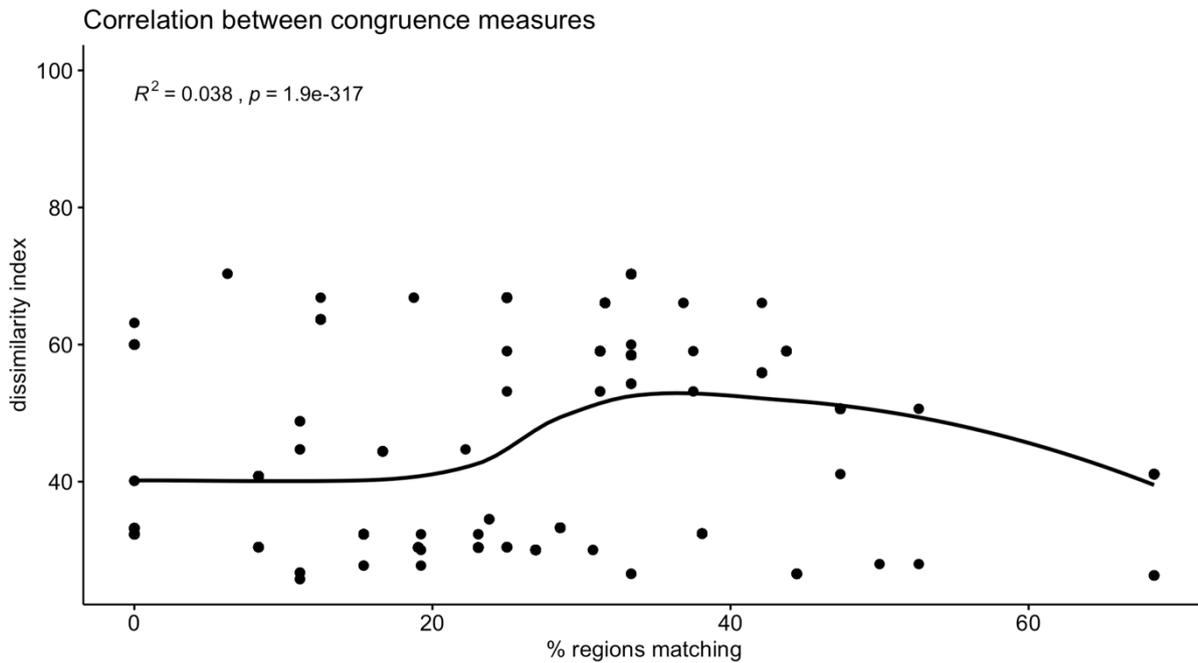
Figure 4. Comparison of congruence measures over time

Incongruence in Western Europe 1981-2012



Despite some visual similarities, there is only a weak correlation between the two measures of % regions congruent and % dissimilar.

Figure 5. Congruence between the dissimilarity index and share of matching regional governments



Let us now move to real world empirics and highlight some of the instances where the divergence between the incongruence implied by the dissimilarity index and the categorical approach is largest. These cases further demonstrate the unintuitive results produced by the alternative measures, the mathematical flaws, and the improvements offered by my approach. I take the cases of Austria in 2002, Austria in 2008, Denmark in 1984 and Spain in 2008 as examples where the measures diverge the most.

Austria 2002

In 2002 in Austria, there was an OVP-FPO national government. Only one region matched this composition, one was held solely by the SPO, one by an OVP-SPO coalition and the rest by OVP-FPO-SPO coalitions. The dissimilarity index puts Austria at 48.81% for this year, while my measure suggests 88% of regions were not congruent. Digging into the data reveals that the discrepancy is that the dissimilarity index produces a low

score when the cross-cutting party holds less than 40% of the regional governing party seats. This then creates an outcome where a majority of regional governments can be cross-cutting but so long as the national opposition party doesn't hold a majority in the regional government the overall picture will be of low dissimilarity. As I mentioned before in Table 5 above, this means that when a regional government and national government have the exact same parties and only those, the dissimilarity score can be far higher (85% in the example), than the situation here where a national opposition party is in the regional government. This seems to run against intuitive understandings of what it means by government congruence.

Table 9. Congruence comparison Austria 2002

Region	Government	Year	Dullaghan	Ştefuriuc	Roberts	Dandy & Schakel	Back et al
Burgenland	OVP-SPO	2002	Cross-cutting	Partial	Incongruent	56.67	0.63
Kärnten	OVP-FPO-SPO	2002	Cross-cutting	Partial	Incongruent	70.33	0.43
Niederosterreich	OVP-FPO-SPO	2002	Cross-cutting	Partial	Incongruent	38	0.33
Oberosterreich	OVP-FPO-SPO	2002	Cross-cutting	Partial	Incongruent	51.92	0.33
Salzburg	OVP-FPO-SPO	2002	Cross-cutting	Partial	Incongruent	54.84	0.43
Steiermark	OVP-FPO-SPO	2002	Cross-cutting	Partial	Incongruent	35.85	0.33
Tirol	OVP-SPO	2002	Cross-cutting	Partial	Incongruent	31.03	0.29
Voralberg	OVP-FPO	2002	Congruent	Congruent	Congruent	0.67	0.00
Wien	SPO	2002	Incongruent	Incongruent	Incongruent	100	0.00
National	OVP-FPO	2002	88.89%			48.81	0.43

This example also demonstrates one of the issues with the Back et al. scores. Voralberg and Wien both receive scores of 0, suggesting similarity, despite one being completely congruent and the other completely incongruent. If we instead treated Wien as needing 100% of seats to be left by opposition members, then the score would be 1. If we divide

the total regional government seats held by national opposition parties by the total number of regional government seats, Back et al. would provide an overall score of 0.43 for Austria in 2002. It may be true that 43% of governing seats need to be occupied by national governing parties to achieve 100% congruence. This would give them impression that the national government holds a majority of control of the subnational governments, but it is also true that this would need to occur in 8/9 regions so in practice the national government must bargain with the opposition parties in almost every state. This would be a case where one could also distinguish cross-cutting “majorities” (Burgenland above) from the other cross-cutting “minorities”.

Austria 2008

In 2008 four of Austria’s nine regional governments had an OVP-SPO coalition, exactly the same as the then national government, one had an SPO single party government, two saw the OVP, SPO, and FPO form a coalition, one saw an OVP, SPO, and Green coalition, and the last was an OVP-FPO coalition. How differently this situation is measured is displayed in the table below.

None of the measures can tell us much detail about the ideological differences between the three-party coalition cross-cutting coalitions with the Greens and FPO. Dandoy and Schakel’s measure offers a 1.4 difference, but this doesn’t denote an ideological difference. This is an unfortunate compromise that seems necessary to all authors, including myself, to make a tool that is not overly burdensome in terms of data collection, and is easily comparable across regions, time, and countries. As I explore in paper three, taking into account the ideological rivalry of coalition partners does indeed seem to be significant and have interaction effects with congruence and so perhaps in the future advanced data science and scraping techniques will allow us to create more nuanced measures for use in comparative politics.

Table 10. Congruence comparison Austria 2008

Region	Government	Year	Dullaghan	Ştefuriuc	Roberts	Dandy & Schakel	Back et al
Burgenland	OVP-SPO	2008	Congruent	Congruent	Congruent	5.29	0
Salzburg	OVP-SPO	2008	Congruent	Congruent	Congruent	1.054	0
Steiermark	OVP-SPO	2008	Congruent	Congruent	Congruent	1.67	0
Tirol	OVP-SPO	2008	Congruent	Congruent	Congruent	28.97	0
Wien	SPO	2008	Congruent	Partial Incongruence	Incongruent	47.22	0
Kärnten	OVP-SPO- FPO	2008	Cross- Cutting	Partial Incongruence	Incongruent	52.78	0.43
Niederosterreich	OVP-SPO- FPO	2008	Cross- Cutting	Partial Incongruence	Incongruent	23.93	0.11
Oberosterreich	OVP-SPO- GR	2008	Cross- Cutting	Partial Incongruence	Incongruent	25.33	0.11
Voralberg	OVP-FPO	2008	Cross- Cutting	Partial Incongruence	Incongruent	52.78	0.14
National	OVP-SPO	2008	55.56%			26.56	0.08

In the case of Wien, Ştefuriuc, Roberts, and Dandy & Schakel all suggest there is some vertical misalignment while Back et al. and my measure suggest a harmonious situation. In fact, Dandoy and Schakel suggest more dissimilarity in the case of Wien than Niederosterreich or Oberosterreich where even Back et al. and my measure point to a lack of similarity. It begs the question in what practical sense would we consider the case of Wien to be more or at least as disruptive as the cases of Niederosterreich or Oberosterreich. The government in Wien can bargain with the national government through SPO intra-party channels and the SPO can plausibly claim to its electorate that it has not compromised its policy ideals in pursuit of power. In both Niederosterreich and Oberosterreich the national government's bargaining with the regional government must take into account the position of a national opposition party the Greens or FPO. Both the OVP and SPO may also need to justify why they were 1) willing to compromise with an

opposition party and 2) why they made two different compromises: one with an eco-left-wing party and one with a liberal-right wing party. Were they so driven by office seeking that they will make any policy compromise necessary? Back et al. and Dandoy and Schakel consider Kärnten to be more dissimilar than Niederosterreich (32 and 28.85 percentage points respectively), despite the same parties being in power. The FPO held two more seats in the regional government in Kärnten than Niederosterreich. It seems unlikely the public take much notice of the exact number of seats or cabinet portfolios a party takes. It is more plausible that the FPO has more bargaining power in Kärnten, or that the SPO-OVP national government has to take the FPO positions less into account when dealing with Niederosterreich than Kärnten as there are fewer potential veto-players.

I think this is where a continuous measure can provide value, to give some sense of the magnitude of power relations. However, it is unclear how the causal mechanism relates to the numerical values. Kärnten has a seven-seat regional government where the FPO hold three, giving the 43% Back et.al score. If the FPO had gained 4 seats in the nine seat Niederosterreich they would have a 44% score. In both cases we see that two-fifths of the regional government is held by the opposition, but practically the latter has 4 veto players and the former 3. My measure does not provide any signal of the power balance, but it's unclear exactly what value is coming from knowing there is a 1 percentage point difference, and if the value is unclear why use the data? It would be more useful if the measure could tell us if the opposition party has majority control or not, and certainly one could simplify the Back et al. measure into a cross-cutting "majority" or "minority". Despite numerous attempts contacting both Back et al. and Schakel and Massetti to obtain the data they collected, the authors claimed in error that the data was freely available on their websites and did not provide a solution. Due to time constraints, it was not then possible to manually collect all the data on seat shares for the 5,739 observations of

regional governments containing a magnitude of order more parties. Even collecting the data necessary to construct this comparison of one region in one year was not without issues. This was disappointing and somewhat limited what research questions could be addressed by the measure I could construct, yet I believe it is still meaningful and omitting continuous measurements without substantive meaning is an improvement.

There are also implications at an aggregate level. For 2008 as a whole, Dandoy and Schakel give Austria a dissimilarity score of 26.56%. A lay reader would intuitively think that perhaps this means one quarter of Austrian regional governments were not matching the national government. If we again divide the total number of regional government seats held by national opposition parties by the total number of regional government seats available, Back et al would produce a 0.08 score, suggesting almost no incongruence. Using the categorical measures suggest that 4/9 or 5/9 (44% to 55%) of the regional governments were not matching. Furthermore, Roberts' measure would suggest almost half of the regions were simply "incongruent". While Roberts misses information, arguably Dandoy and Schakel misleads by at face value suggesting there is more matching than an intuitive read of the situation would suggest.

Denmark 1984

In Denmark following the 1984 election a national coalition of the Conservative People's Party (KF), Venstre (LIB), and Centre Democrats (CD) was formed. Like Dandoy and Schakel, and Schakel and Massetti I take the party affiliation of the mayor as the regional government measurement. This of course means there can never be a case of a cross-cutting coalition since only one party can be represented regionally and it must either be a member of the national government or not. 8 of the 15 mayorships were held the Social Democrats, a party in the national opposition and the rest were held by Venstre, in the national government.

Table 11. Congruence comparison Denmark 1985

Region	Government	Year	Dullaghan	Ştefuriuc	Roberts	Dandy & Schakel	Back et al.
Arhus	SD	1985	Incongruent	Incongruent	Incongruent	100	0
Bornholms	LIB	1985	Congruent	Partially Congruent	Incongruent	71.43	0
Frederiksborg	LIB	1985	Congruent	Partially Congruent	Incongruent	71.43	0
Fyns	SD	1985	Incongruent	Incongruent	Incongruent	100	0
Kobenhavn, Frederiksberg	SD	1985	Incongruent	Incongruent	Incongruent	100	0
Kobenhavns	SD	1985	Incongruent	Incongruent	Incongruent	100	0
Nordjyllands	SD	1985	Incongruent	Incongruent	Incongruent	100	0
Ribe	LIB	1985	Congruent	Partially Congruent	Incongruent	71.43	0
Ringkobing	LIB	1985	Congruent	Partially Congruent	Incongruent	71.43	0
Roskilde	SD	1985	Incongruent	Incongruent	Incongruent	100	0
Sonderjyllands	LIB	1985	Congruent	Partially Congruent	Incongruent	71.43	0
Storstroms	SD	1985	Incongruent	Incongruent	Incongruent	100	0
Vejle	LIB	1985	Congruent	Partially Congruent	Incongruent	71.43	0
Vestjaellands	SD	1985	Incongruent	Incongruent	Incongruent	100	0
Viborg	LIB	1985	Congruent	Partially Congruent	Incongruent	71.43	0
National	CD-KF-LIB		53.33%			86.67	0.00

According to my measure then 53% of the subnational executives in Denmark were incongruent. Ştefuriuc does not detail how the measure would apply to such cases but a literal reading of the definition would imply partial congruence, while Roberts would class these as incongruent. The dissimilarity index outputs 71.43% for each of the incongruent regions and an overall average of 86.67%. However, trying to replicate these numbers is difficult. Following the formula of the dissimilarity index, the regional governments with a national party mayor should result in a score of 69.44 according to

my own re-calculations. In the case of Back et al. because their continuous measure is limited at 0.99 and defaults back to 0 in the case of incongruence then we are left with a score of 0 and have to read into the case to know if this was full congruence or full incongruence.

Spain 2008

In Spain in 2008 we have the reverse to Denmark, where only a single party holds office at the national level while coalitions are common at the subnational level. The PSOE held complete control of the national government and 3 of the 19 regional governments and shared power in another 5. According to my measure this results in 26% cross-cutting, 58% incongruence, and 84% non-congruence overall.

An issue for aggregating the Back et al. measure is their measure uses the “seats held by the coalition”. In the cases of Austria and Denmark above there were set numbers of seats that could be held in the regional executive, but in the Spanish case the coalition size will vary depending on the electoral success of the governing parties because they rely on parliamentary seats as a unit. In the cases of a regional cross-cutting government one can simply add the seat shares of the national government and national opposition parties to get a denominator. In the case of the incongruent governments, one solution might be to take 51% of the parliamentary seats in each regional government (the minimum needed for a majority governing coalition) and input that 100% of these seats would need to be left by the opposition for there to be congruence. This would produce a score of 0.8 which is not far off the 84% non-congruent regions from my measure, and the regional scores are almost copies of the dissimilarity index. Meanwhile, the dissimilarity index provides an output of 56% dissimilarity, underestimating the extent of incongruence. The dissimilarity data codes Asturias as 0% dissimilar despite the cross-cutting coalition. We again see the issue of the Back et al. 0.99 cut off obscuring the difference between fully

congruent and fully incongruent coalitions, while the dissimilarity index appropriately rates these as 100% dissimilar.

Table 12. Congruence comparison Spain 2008

Region	Government	Year	Dullaghan	Ştefuriuc	Roberts	Dandy & Schakel	Back et al
Andalucía	PSOE	2008	Congruent	Congruent	Congruent	0	0
Aragón	PSOE-PAR	2008	Cross-cutting	Partial Congruence	Incongruent	23	0.23
Canarias	CC-PP	2008	Incongruent	Incongruent	Incongruent	100	0
Cantabria	PSOE-PRC	2008	Cross-cutting	Partial Congruence	Incongruent	54	0.55
Castilla y León	PP	2008	Incongruent	Incongruent	Incongruent	100	0
Castilla-La Mancha	PSOE	2008	Congruent	Congruent	Congruent	0	0
Cataluña	ERC-ICV-PSC	2008	Incongruent	Incongruent	Incongruent	35	0
Ciudad de Ceuta	PP	2008	Incongruent	Incongruent	Incongruent	100	0
Ciudad de Melilla	PP	2008	Incongruent	Incongruent	Incongruent	100	0
Comunidad de Madrid	PP	2008	Incongruent	Incongruent	Incongruent	100	0
Comunidad Foral de Navarra	CDN-UPN	2008	Incongruent	Incongruent	Incongruent	100	0
Comunitat Valenciana	PP	2008	Incongruent	Incongruent	Incongruent	100	0
Extremadura	PSOE	2008	Congruent	Congruent	Congruent	0	0
Galicia	PSOE-BNG	2008	Cross-cutting	Partial Congruence	Incongruent	35	0.34
Illes Balears	PSOE-PSM-UM	2008	Cross-cutting	Partial Congruence	Incongruent	15	0.15
La Rioja	PP	2008	Incongruent	Incongruent	Incongruent	100	0
País Vasco / Euskadi	EAJNVP-IU	2008	Incongruent	Incongruent	Incongruent	0	0
Principado de Asturias	PSOE-IU	2008	Cross-cutting	Partial Congruence	Incongruent	0	0.16
Región de Murcia	PP	2008	Incongruent	Incongruent	Incongruent	100	0
National	PSOE	2008	58% incongruent, 26% Cross-cutting			55.89	0.80

Temporal Trends

Only Dandoy and Schakel provide a framework and publicly available data for how to scale up their measurement to a national picture over time. I devote the entire next paper to descriptions and charts of congruence across the nine western European countries. Therefore, to avoid duplication I will here highlight just a small number of examples of national aggregates to contrast my measure with the others available. Scaling up my measurement to show the percent of regions that fall into the various categories of congruence, Figure 6 paints a picture of cross-cutting and incongruent coalitions in Austria over 70 years.

Figure 6. Congruence in Austria 1945-2015

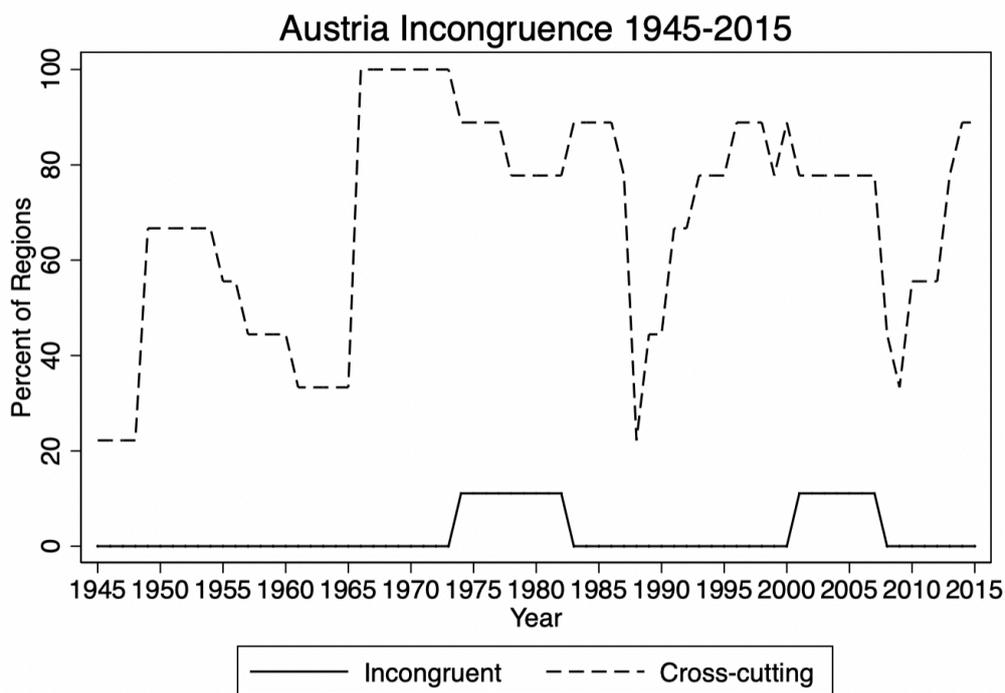
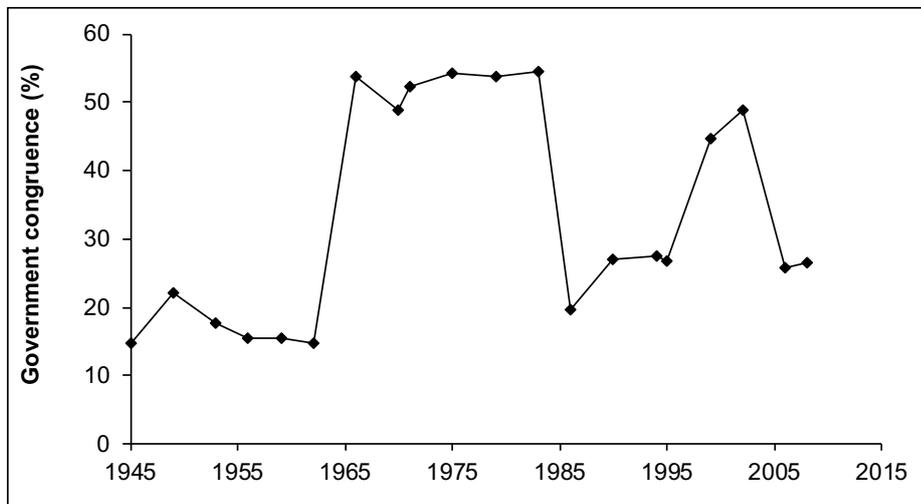


Figure 7. Austria Dissimilarity scores 1945-2008



By comparing my graph with the one produced using the dissimilarity index (Figure 7 above), we can see the broad trends of peaks and troughs are the same; the mid 60s and 70s are periods of high incongruence, as well as the late 90s and early 2000s. What we learn from the graph in Figure 6 is that this incongruence was due to 80% and above of the regional governments being cross-cutting or fully incongruent, rather than knowing only that there was slightly above 50% dissimilarity in these years. We can also see that in the late '70s the lack of congruence was due to both cross-cutting and completely incongruent governments, rather than just one or the other. This facet of information is missing from the dissimilarity index which simply shows a rather flat score from the '60s to mid '80s.

The disjuncture between the two measures is starker in the case of Germany. The dissimilarity index (Figure 8 below) suggests a pretty high and relatively steady rate of incongruence, with a peak in the mid 1990s. What we can see with my measure (Figure 9 below) is that the 1970s to mid 1990s was a period in which close to 40% or more of

regional governments in Germany were incongruent with the national government. Since 1990 there has been an increase in regional governments which have a member of the national opposition in partnership with a national government member. This would seem to corroborate the notion that parties are increasingly experimenting with novel coalitions with rivals, at least in Germany. This insight is absent from the dissimilarity index which only suggests a brief uptick in incongruence in the mid '90s. We also see that the decade immediately after the end of WW2 was one of high incongruence. Less than 10% of regional governments matched the national government in this period when we saw both full incongruence and cross-cutting characterise at least 40% of regions each. All of these insights and trends are completely absent from the dissimilarity index.

Figure 8. German congruence 1945-2015 according to a dissimilarity index

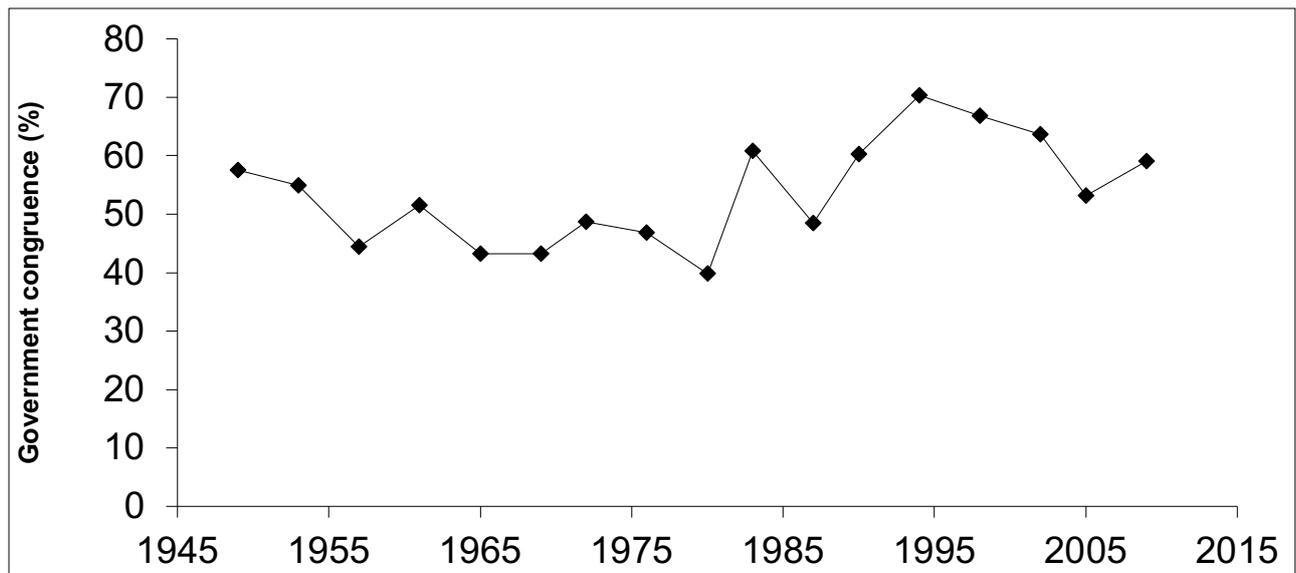
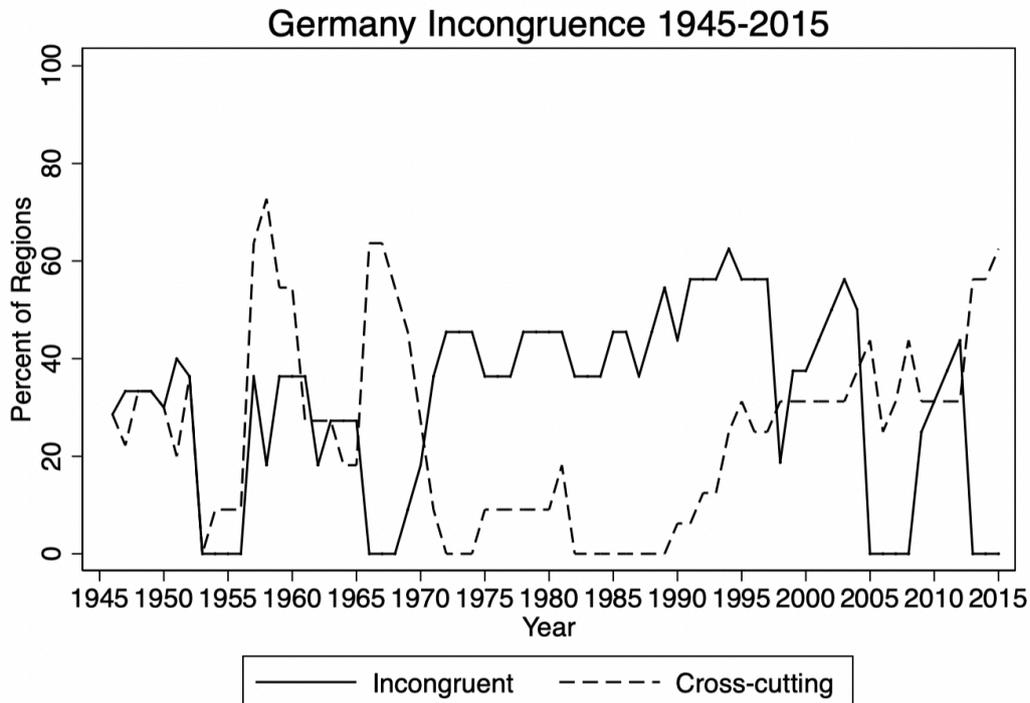


Figure 9. German congruence 1945-2015 according to share of matching regional governments



Party congruence

In this project I am not primarily focusing on party competition, or party-specific congruence. I focus on government congruence. However, as an illustrative example of how my approach could be expanded into this area in future, I present an example below. In Figure 10 below I present the mean dissimilarity score for each year for the SPO party in Austria, according to Dandoy and Schakel. In Figure 11 I present the percentage of regions where the SPO had a coalition partner different from the SPO's partner at the national level. 0% corresponds to when the SPO was not in national government or was in a single party national government. There were no instances where all SPO regions had the same coalition partner as the national level. We can see that Dandoy and Schakel's measure rates incongruence as between 20%-30% during the late '60s and '70s despite no SPO representation in national government to compare to in some cases. We can also see that the dissimilarity score misses that in the '90s a high percentage of SPO

regional governments had partners different from the national level. This offers some evidence that a categorical approach may unveil different patterns in party coalition partner strategies than the dissimilarity scores imply.

Figure 10. Dissimilarity scores for SPO 1945-2008

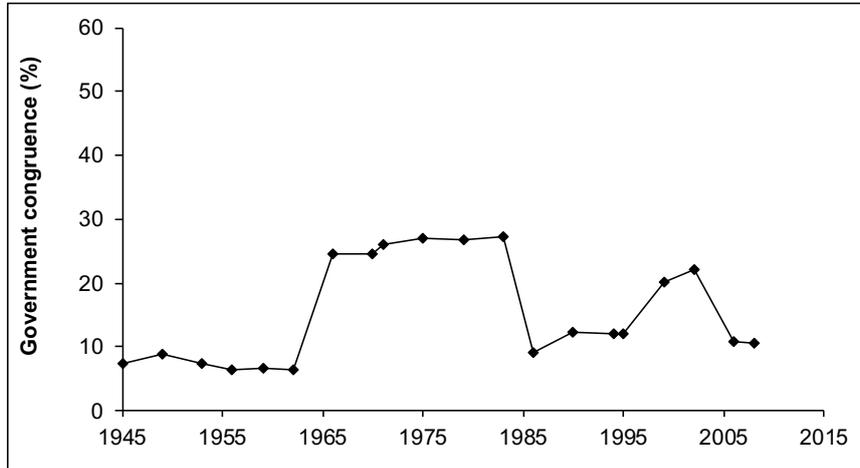
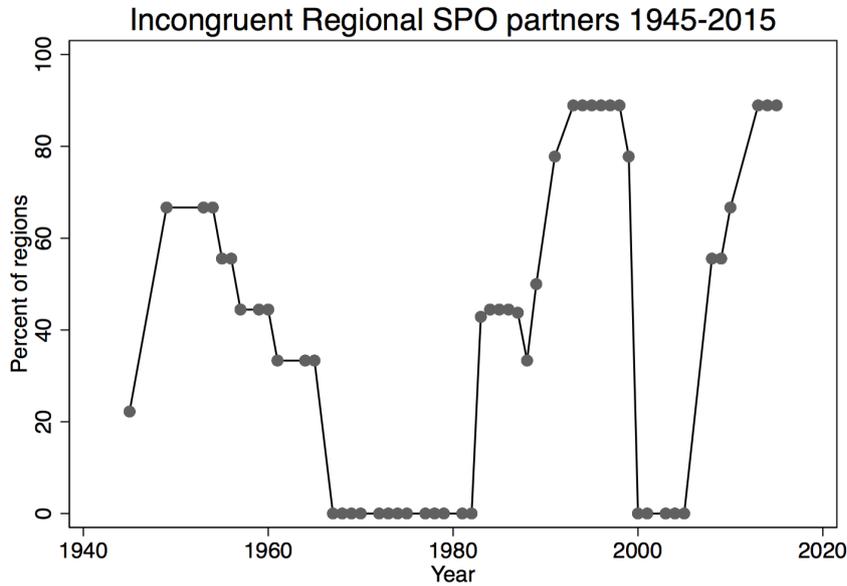


Figure 11. SPO Incongruent regions 1945-2015



Limitations

These examples have illustrated how my new operationalisation can work in practice and offer additional or alternative substantial meaning to these quantitative figures. However, this measure is surely not without flaws or criticisms, though I argue they are not as substantial as those in the previously devised measures.

One may take issue with the operationalisation and categorisation of congruence. Does it matter that the regional government contains at least all the parties in the national government, only some, or must it contain *only* those. In my approach where “cross-cutting” partial incongruence occurs when the regional government contains a party not in the national government, the aggregate number can be inflated by the presence of non-state-wide regionalist parties which are essentially unable to hold office at the national level. For the purposes of this project, I am not concerned with this issue as I am interested in how often the party chooses to break their coalition pattern- whether it be with a national opposition party or regional party – rather than not form a government at all. My dataset contains the information for one to parse incongruence in different ways as per the researcher’s theoretical unit of analysis.

As an aggregate measure taking the percentage of a countries’ regional governments in a state of congruence or not may not lend itself to all analyses. It may matter more for some other researchers less how many governments are congruent, but rather how many people live under congruence for example. In this case they would want a within-country binary measure of which regions are congruent or not. Fortunately, I have compiled this data as the basis of the percentage scores I use and so that data will be available to future researchers.

Finally, a simple percentage of regions congruent, cross-cutting, or incongruent does not illustrate the extent of congruence within these governments. We do not know from my measure at the outset if a country has 50% of regions cross-cutting whether it is because they are all lacking the same coalition partner or whether a plethora of difference coalition partners have been chosen. None of the approaches in the literature have yet solved the issue of providing easily comparable and scalable measures while also provided the nuanced party or ideological specific information needed for such analysis. Others may be interested in the share of power held by opposition parties in cross-cutting coalitions. I have in the above suggested an amendment to the Back et al. measure that creates “cross-cutting majority” and “cross-cutting minority” categories that future researchers may construct if the data becomes available.

Conclusion

This methodological paper has sought to highlight some of the flaws in using a dissimilarity index to accurately measure and depict government incongruence. In the above I sketched out some hypothetical mathematical examples that demonstrate the substantive lacuna of the index. I also examined the data to illustrate how similar scores were being used to denote very different situations, and how very dissimilar scores were used for very similar government compositions. I have made an attempt at offering a more useful measure of government incongruence, drawing on a literature that has mainly leaned towards categorical measures rather than continuous ones. I discussed some hypothetical and real-world comparisons of each measure to demonstrate what details are lost and gained. My measure offers clearly demarcated categories, including cross-cutting coalitions, without adding continuous level data that has questionable substantive meaning both at the edges of the range and at intervals along the way. Using simpler categorical measures misses out on the key problem of coalitions that cut across

the government-opposition divide. I look forward to the public release of the Back et al. or Schakel and Massetti cross-cutting datasets so that one could add “majority” or “minority” to the cross-cutting category, and to more advanced machine learning techniques that may be able to parse the ideological nuances into easily identifiable patterns. In lieu of these developments, the measure I propose here offers a compromise with most of the advantages of the existing operationalisations and without their disadvantages. In the series of subsequent papers as part of this project I will provide a larger dataset using this new operationalisation and apply it to a range of theories and hypotheses.

A New History of Coalition Congruence

Abstract

Roughly half of Western European regional governments over the last 70 years have cut across the national government-opposition divide, yet contrary to expectations that such governments are increasingly common, there appears to be only a small increase in the average historical pattern of novel national-regional government partnerships. This paper utilises a new measure of congruence between national and regional governments to map the history of regional coalition experimentation across nine Western European countries between 1945 and 2015. The results show that since the 1960s, on average, half of regional governments cut across the national government-opposition divide but this share has not moved much in the last 40 years. However, there are also groupings of countries into those who often cut across this divide, those who very rarely do, and those where there appears to be an increasing willingness to partner with the opposition.

Introduction

In the previous paper I have outlined the flaws in the existing measurement of how often regional governments are composed of different parties to national governments, and to what extent. This concept has been labeled as “incongruence”, “mismatch”, “promiscuity”, “atypical coalitions” “partisan disharmony”. In this paper I aim to use a new operationalisation of the concept to reveal a truer account of the changes in promiscuity over time in Europe than has been offered by previous research. Instead of the previous operationalisations which I have critiqued above, I utilize here a new measure of how mismatched national and regional governments are in terms of party composition.

In brief, using a new historical dataset created by combining freely available regional government composition and national composition data I can chart how many regions in a state had different government compositions compared to the national level. I categorise this difference as *incongruent* or *cross-cutting*. The former describes a situation where none of the parties holding government power in the national government are represented in a regional government, and the latter describes a situation where at least one of the national government party members is represented in the regional government alongside at least one member of the opposition. Taking these together for each region I arrive at a percentage of regions that were not congruent, i.e., did not have a match with the national government. I also calculate this for the major national government parties in order to see in how many regions did a party hold office in both national and regional levels but opt for a different regional partner, or additional partners.

It has been said that “all systematic research begins with good description” (Landman 2002, 5) because it is only once the phenomena of interest have been accurately plotted that the research can look for explanations of the variation in these data. This project aims to provide the empirical meat for future comparativists to draw upon when testing hypotheses drawn from political science. To describe variance in a phenomenon like coalition congruence does not necessarily require any theoretical underpinning except a discussion of the measure (which is done in the previous chapter), but it is essential. Nowadays many articles simply go directly to regression results and do not offer any description of the data set and of the space and time variance in the variable. This is arguably bad practice. To present new data should be considered a good means of making a contribution to a discipline or field. Before diving into analytical papers aiming to explain 0.4% of observed variance, I will first lay out the trends in coalition congruence and the variance that may cause any effects we observe in later papers. This is a daunting

task in a short standalone paper, but within the broader remit of the dissertation project like this there is more space. I aim to follow the advice of Charlie Jeffery to engage in “imaginative re-analysis and comparative analysis” to “scale up the ambition and build datasets which allow more systematic analysis across time and space” (Jeffery 2009).

Data

Using the 3-level typology I developed in the previous paper, I set this to work analysing the historical record. Using a mixture of pre-existing datasets on regional government composition (from Schakel and Dandoy), national government composition (CPDS), and supplementing it where necessary using national election studies and records I have coded the congruence of each region in nine Western European countries 1945-2015. This dataset contains 5,739 observations of regional governments across 146 regions in Western Europe. Given the different timing of decentralizing reforms, there is not data for the entire time period for each country. Only Germany, Austria, and the Netherlands contain data from as far back as 1946. Regional elections are a relatively recent phenomena in Western Europe. They were absent from the UK before 1999, from Belgium before 1995, from France before 1982, from Spain before 1980 and from the most Italian regions before 1970.⁸ The bedrocks of European federation have been Austria, Germany, and Switzerland since at least 1945. Therefore, before the late 1990s there was only limited regional electoral experience or data for comparative analysis.

Belgium is the primary example used in many single countries studies that the congruence literature is built upon but presented some difficulties that this project sought to address. This is mainly due to the siloed nature of the party system in Belgium. It is

⁸ The five special status regions of Italy held their first elections over a period extending back to 1946.

often the case that the national government is composed of parties that do not take part in every region because they are tied to language specific communities and territories (Flemish and Walloon mostly). As Olislagers and Steyvers (2015) do, I consider that a Flemish regional coalition is congruent with the federal coalition if it consists of any state-wide and Flemish-only party in the federal government while a Walloon coalition is congruent if it consists of any state-wide and Walloon-only party.

Norway can be considered an edge case as it is usually labelled as a unitary state where municipalities have only been directly elected since 1975. The county council elects the county mayor and the members of the county executive board. Executive power at the county level is shared with a central government appointee. The party affiliations of the county mayor and the members of the county executive board are used to measure subnational government composition. However, it is the case of Denmark which stands out most as misaligned with the general framework in this project. The subnational authority for which we have data on is a mayorship and so can only be congruent or incongruent. There is no possibility for a cross-cutting coalition subnationally.

Italy is left out of this dataset because of the extremely volatile history of the Italian party system. Many parties are created, evolve, merge, and collapse between a few elections and so it was very difficult to untangle which parties should be considered congruent with each other and to discern any trend from the noise. Giannetti and Pinto (2018) have made an effort at creating a dataset of Italian coalition congruence, but it was not possible to gain access to this data and unclear how they operationalised vertical congruence. France, the UK, and Portugal were omitted due to difficulties in collecting and coding the data from available sources. The remaining dataset consists of Austria, Belgium, Denmark, Germany, Spain, Norway, Sweden, Switzerland, and the Netherlands. These cases encompass a variety of institutional arrangements.

Table 13. Regional governments

State	N Regions	Years	N Regional Governments
Austria	9	1945-2015	639
Belgium	4	1995-2014	80
Denmark	20	1970-2014	575
Germany	16	1946-2015	888
Netherlands	12	1946-2015	799
Norway	19	1975-2015	779
Spain	19	1980-2015	615
Sweden	21	1994-2015	455
Switzerland	26	1980-2015	909

For each regional government a variable denoted the congruence status in that given year (or the status it held for the longest period during that year). A region was coded as “congruent” if all parties in the regional government have a match in the national government, but not necessarily vice versa. For example, a CDU-FDP coalition in the Bundestag is congruent with a CDU-FDP coalition in Berlin and a CDU single-party government in Bremen. A region was coded as “incongruent” if the regional government contained no parties that were present in the national government. Continuing with the German example above, an SDP-Linke coalition or an SDP single party government in Hessen would be incongruent. Finally, a region was coded as “Cross-Cutting” if one party in the regional government does not have a match in the national government e.g., a CDU-SPD coalition in Thüringen.⁹ This also includes regional governments containing

⁹ Cases where a regionalist party that didn’t compete at the national level was present in the regional government alongside a national government member were coded as cross-cutting. A second coding scheme also considered congruence under the stricter criterion that *all* national level parties needed to be

a regional party, even if it is unlikely to ever obtain seats or power in the national government due to its limited geographic appeal. As mentioned in the previous paper there are similar dynamics for state-wide parties in government in partnering in the regional government with a national opposition party as there are with a regionalist party. However, on a practical level it is also an enormous task to look at every party in every region in every year and code it as a regionalist only party or not.

General trends 1945-2015

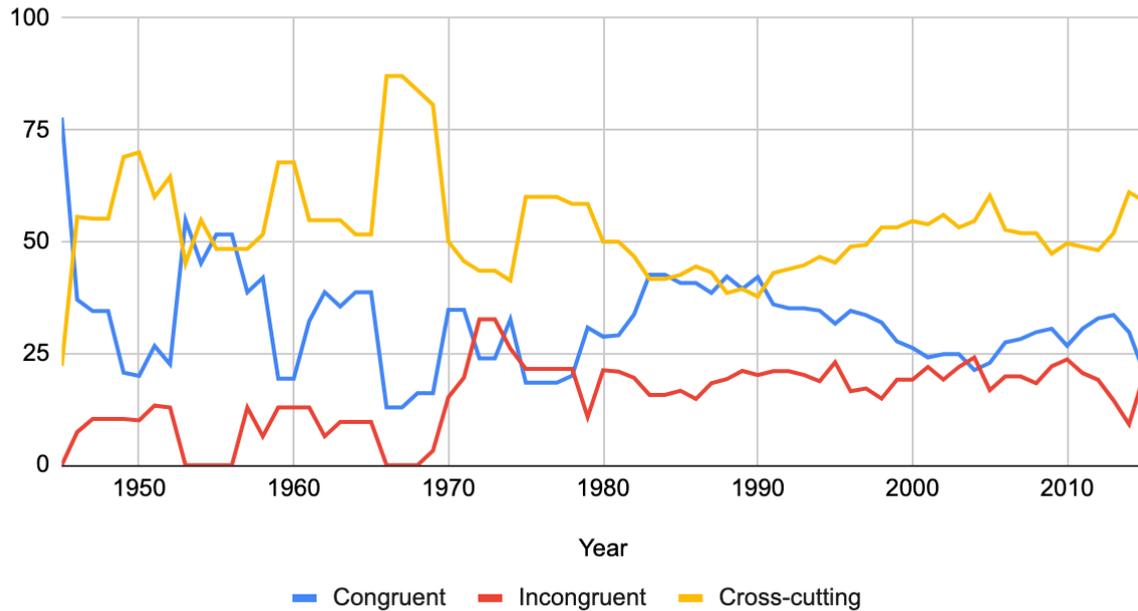
Before diving in depth into each state I will note some general trends and observations. The first, which runs partly contrary to my and others' expectations is that there is no huge linear increase in cross-cutting historically. That is to say, government parties have not increasingly opted for novel regional partners from the national opposition in recent decades compared to earlier periods. Regional governments are composed of exactly the same parties as the national government in a rather erratic frequency. This runs counter to an expectation that parties were increasingly experimenting with new coalitions at the regional level which would have been reflected in increasing partial mismatch between national and regional governments. The trend appears to be one of a solidifying pattern, and perhaps one where national coalition members have secured a certain percentage of states where they almost always have representation in government and in another share of regions are completely locked out of government, leaving little room in between for experimentation of novel coalition partners.

included in the regional government. This is not used for this analysis but available for any researchers wishing to use this dataset and that classification.

The figure below shows the percentage of regional governments per year across Europe that were congruent, incongruent, or cross-cutting between 1945 and 2015. This treats Europe as a whole and each regional government as a distinct entity and observation in the dataset. It appeared that until the mid-1960s, which mostly comprises only Germany, Austria, and the Netherlands, there was already a high degree of cross-cutting happening. Approximately half of the regions across these three countries were cross-cutting and the rest were mostly fully congruent. Regional governments were rarely formed without a member of the national government in it. There was then a temporary explosion in regional governments composed of national government parties and non-government parties from about 1966 across all of these 3 countries.

Figure 12. Congruence status of western European regions 1945-2015

Congruence status of Western European regions 1945-2015

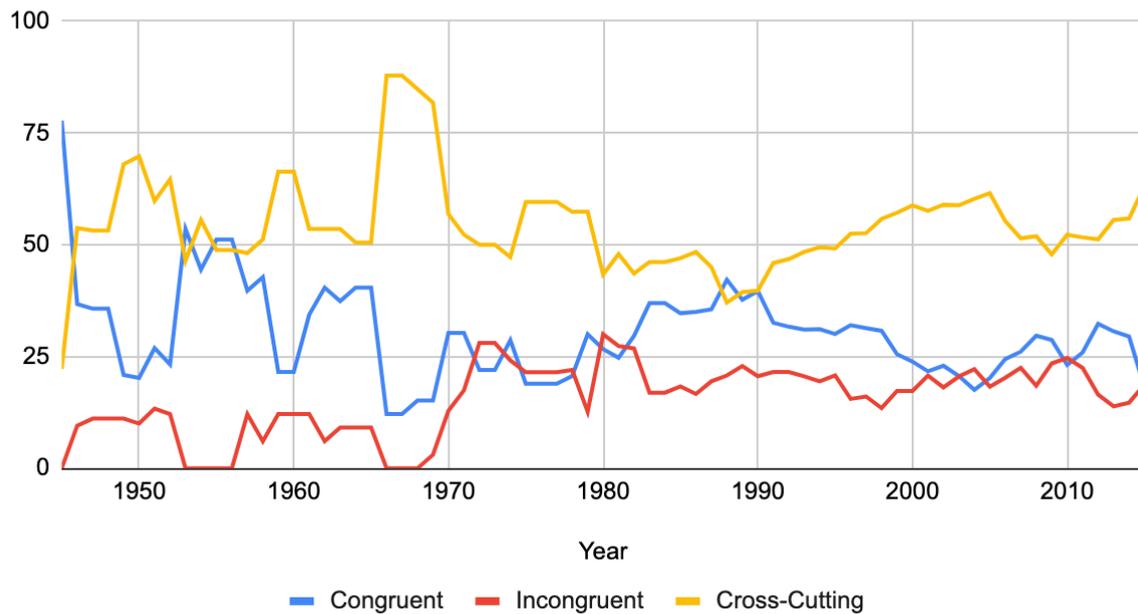


After this time there is far more stability than we might have expected. It is as if what had to happen with regards to coalition promiscuity did so in the 1950s and 1960s. One could make the point that in terms of party system change, coalitional promiscuity came much before other changes in the voters' and parties' features (such as fragmentation, volatility, declining partisanship etc.), all of which began to be perceived in the 1990s. What followed the 1966 explosion appears to be a decade in which volatility gave way to a more stable pattern where fully incongruent regional governments took up a more sizable share of the landscape. Since 1990 there has been a modest uptick in cross-cutting from 37% of regions to 60%. Throughout this seventy-year period the majority of regional governments that national government parties have been represented in have been cross-cutting ones, with the exception of the 1980s when cross-cutting and fully congruent governments made up equal shares of the European regional government landscape.

Taking Western Europe as one political unit is interesting but of course could roll over the very different polities that exist within the continent. Instead, we can take an average of all countries for each year. This produces a very similar chart to the one above with a spike of average cross-cutting in 1966, a gradual increase in cross-cutting since 1990 and a steady rate of fully incongruent regions since the 1970s.

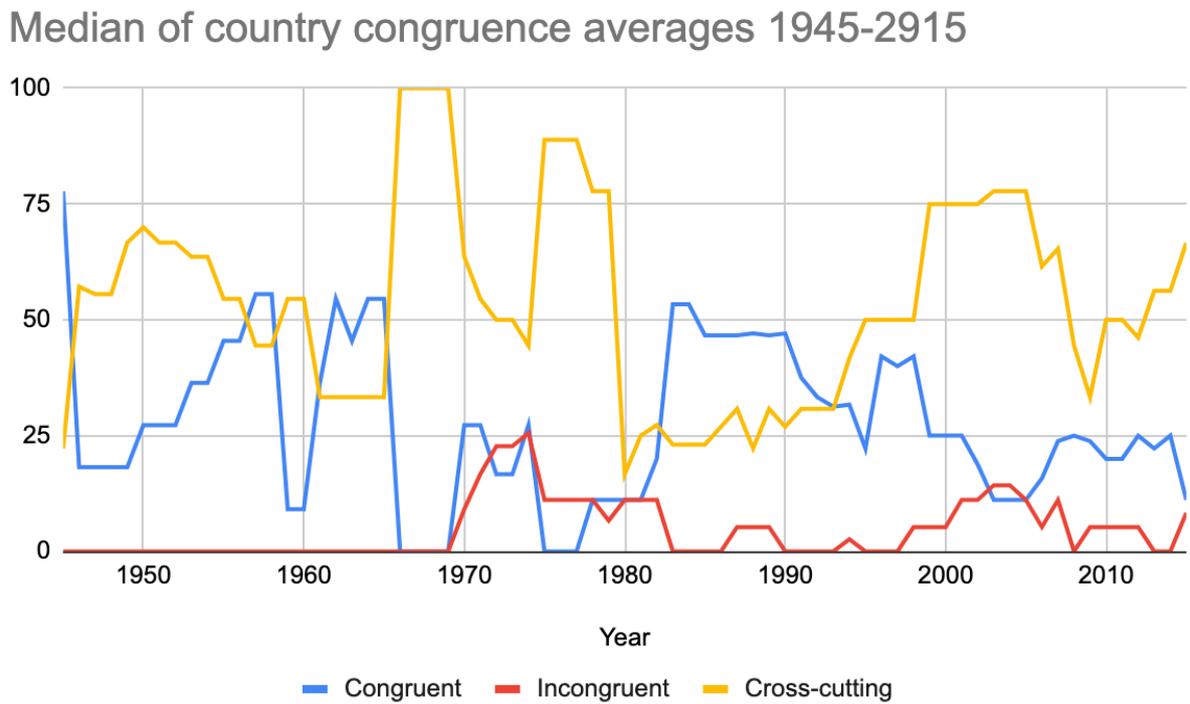
Figure 13. Average congruence status of western European regions 1945-2015

Average of country congruence, 1945-2015



Looking instead at the *median*, the point which divides the sample into two even parts, we see quite a different pattern to before. We can see that far from settling into a stable monotony the rate of cross-cutting has continued to be quite volatile after the mid 1960s surge. We can see for instance that in the late 1970s the average rate of cross-cutting governments was above 75% for half of countries and this high median returned in the 2000s. We can also see a low point for experimentation occurring in 1980 when the average rate of cross-cutting governments was below 16% for half of the countries studied.

Figure 14. Median congruence status of western European regions 1945-2015



The comparison between these charts suggests that while the percentage of Europe's regional governments that are different from their national counterparts has been relatively steady, the share that these regions take up within countries has been far from stable. To understand this better we must look at country trends.

Between Country Trends

From the data presented above we do not know if most of the coalition incongruence is happening in Germany or Spain and whether the level of congruence within countries has been rising or declining. It seems important then to disaggregate this data by country

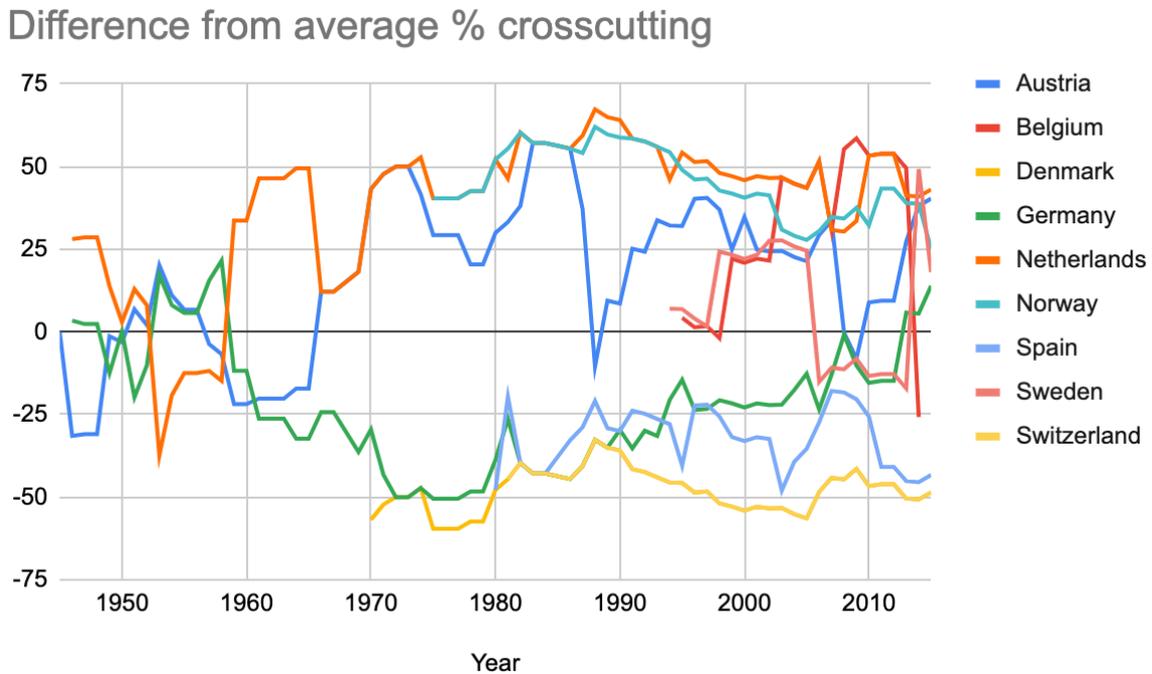
to understand which countries may be driving any trends, and which are outliers. In the data presented below there do appear to be rough clusterings of countries around similar patterns of regional government composition relative to the national government.

Cross-cutting trends

We saw above that the average percentage of regions with cross-cutting coalitions appears to be modestly increasing, but that this likely hides significant country variation. Below we chart the difference between the share of regional governments in a country that are cross-cutting and the average for Europe as a whole for that year. Bäck et al. (2013) had found that compared to Germany, cross-cutting coalitions are less likely to be formed in the Austrian Länder, the Spanish provinces and in the Swedish regions, whereas they are significantly more likely in the Dutch provinces. In this data the Spanish and Dutch cases concur, but Austria and Sweden generally have more cross-cutting than Germany.

Some countries are consistently below average. Denmark and Spain are characterised by single party national governments, but also often by single party subnational regional authorities and so it is perhaps not surprising to see the share of cross-cutting regions is below the average. On the other hand, Germany and Switzerland, which often have coalition governments at both levels of government have been below average, despite a gradual increase again back towards the average since the 1990s in Germany. Others have been consistently above average. Norway has been consistently between 25% and 60% above other countries. Belgium has also mostly been above the average since the 2000s and the Netherlands since the 1970s. Austria and Sweden have shown more volatility, moving dramatically above and below the average throughout this period.

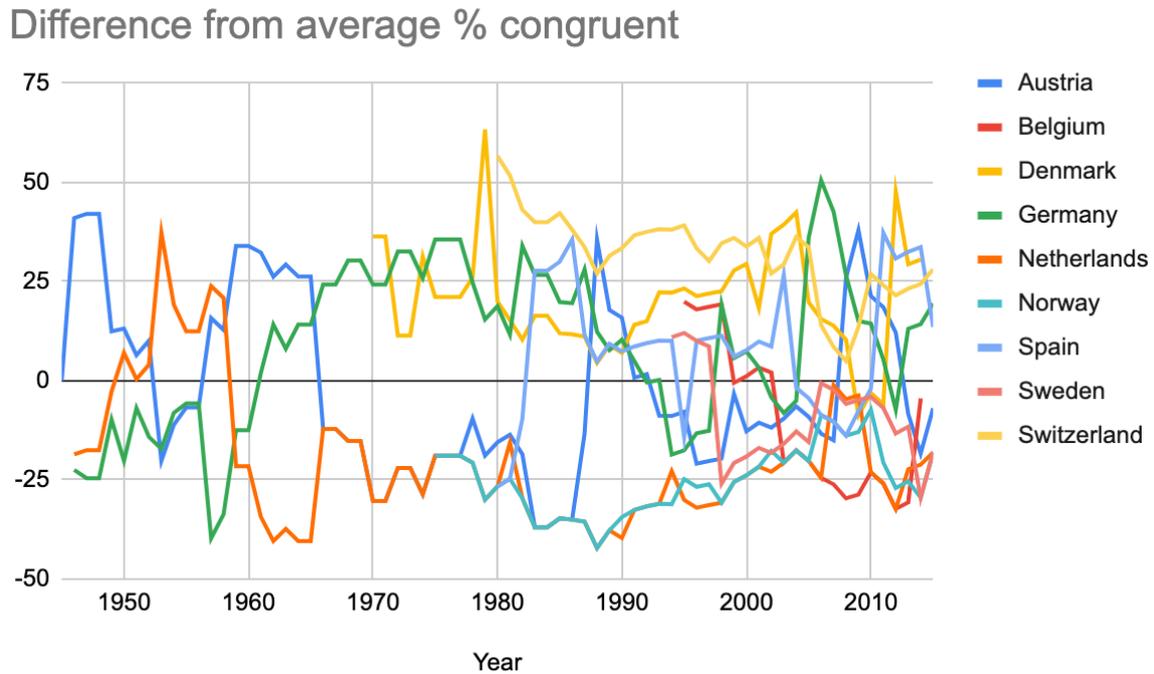
Figure 15. Difference from average cross-cutting congruence of western European regions 1945-2015



Congruent trends

There is a lot of bunching up around similar rates in congruence in the 2000s which makes the chart below more difficult to interpret visually. Norway and the Netherlands have been mostly below average in the share of their regional governments that match the national government while Sweden and Belgium have been below average since the 2000s. Denmark and Switzerland have mostly been above average. The two most typical multi-level countries in Europe, Germany and Austria have rather volatile records of congruence but so has Spain.

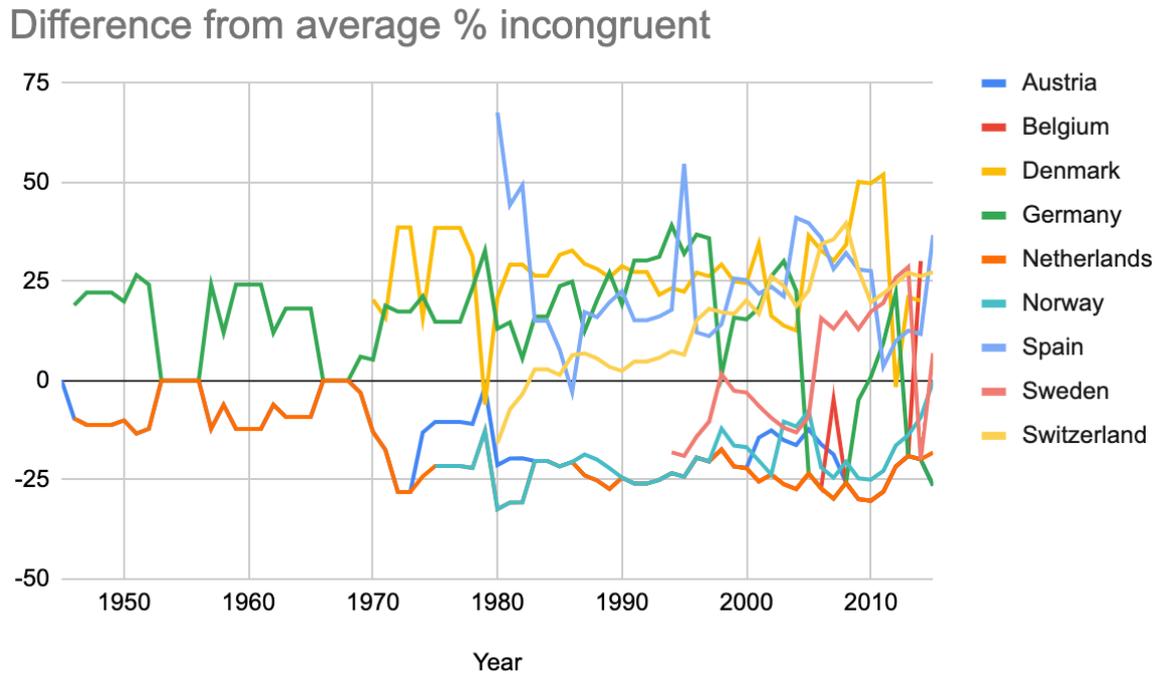
Figure 16. Difference from average congruence of western European regions 1945-2015



Incongruent Trends

We saw above that the average rate of incongruent regions mostly levelled off and closely followed the rate of congruent regions since the 1970s. Austria, Belgium, the Netherlands, and Norway all fall below the average. Denmark and Spain are consistently above average while Germany and Sweden are mostly above average but enter decades of hovering around or below average. Switzerland has experienced increasing rates of incongruence from 25% below the average in 1980 to 50% above the average in 2010.

Figure 17. Difference from average incongruence of western European regions 1945-2015



Groupings

Do we see any natural groupings in terms of the average performance of countries? Spain and Denmark, despite otherwise very different political systems, appear together in being above average in both incongruence and congruence and consequently below average in cross-cutting. These countries appear to be characterised then mostly by situations where regional governments are either perfect matches or perfect mismatches of the national government. Another cluster of countries are notable for being below average in terms of congruent and incongruent regions and above average in terms of cross-cutting regions; Austria, the Netherlands, and Norway. Switzerland and Belgium are both characterised by histories dominated by fully congruent and cross-cutting governments where the national governing parties are never completely locked out of subnational government. Germany and Sweden do not neatly fit together but one could

view them as oscillating between periods of high congruence and incongruence and periods of cross-cutting

We could imagine stylising these groups as the strongholds, the experimenters, compromisers and oscillators. The strongholds have regions which are usually solidly with the government or against them. The experimenters often have regional governments that cut across the national government-opposition divide. The compromisers always include a member of the national government in the regional government, even if it means partnering with a member of the opposition. Finally, oscillators move between periods of cutting across the government-opposition divide and periods of low experimentation.

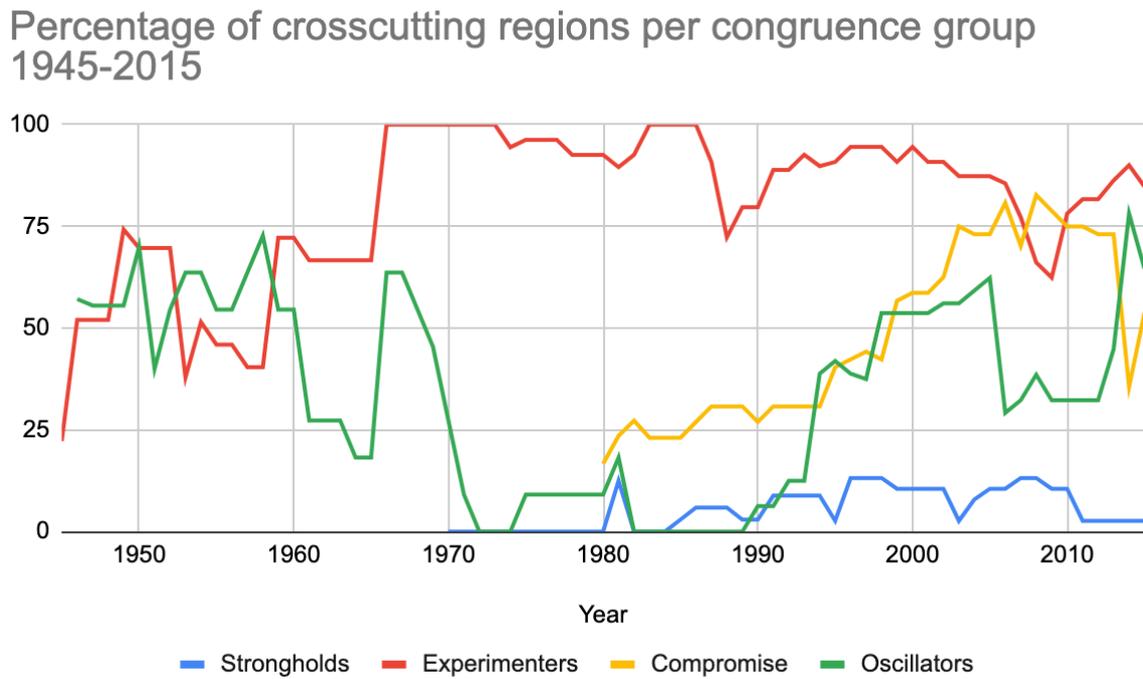
Table 14. Categories of congruence trends

Category	Description	Countries
Strongholds	Cross-cutting is rare and regional governments tend to be fully congruent or incongruent	Spain, Denmark
Experimenters	Cross-cutting is the norm.	Austria, the Netherlands, Norway
Compromise	Incongruence is rare. Governments tend to be fully congruent or cross-cutting.	Switzerland, Belgium
Oscillators	Periods of high cross-cutting and periods of high congruence and incongruence	Germany, Sweden

A final interesting point to note with these groupings is that both the oscillators and compromisers appear to have entered a period of increasing cross-cutting and in time if that trend holds, they may merge with the experimenters. This trend was masked in the average aggregate data by the steady high rate of cross-cutting among the experimenters

and the steady low rate of cross-cutting among the strongholds. This would appear to lend weight then to the expectation that parties are increasingly trying out novel coalitions which cut across the government-opposition divide, but this increase is confined to a few countries.

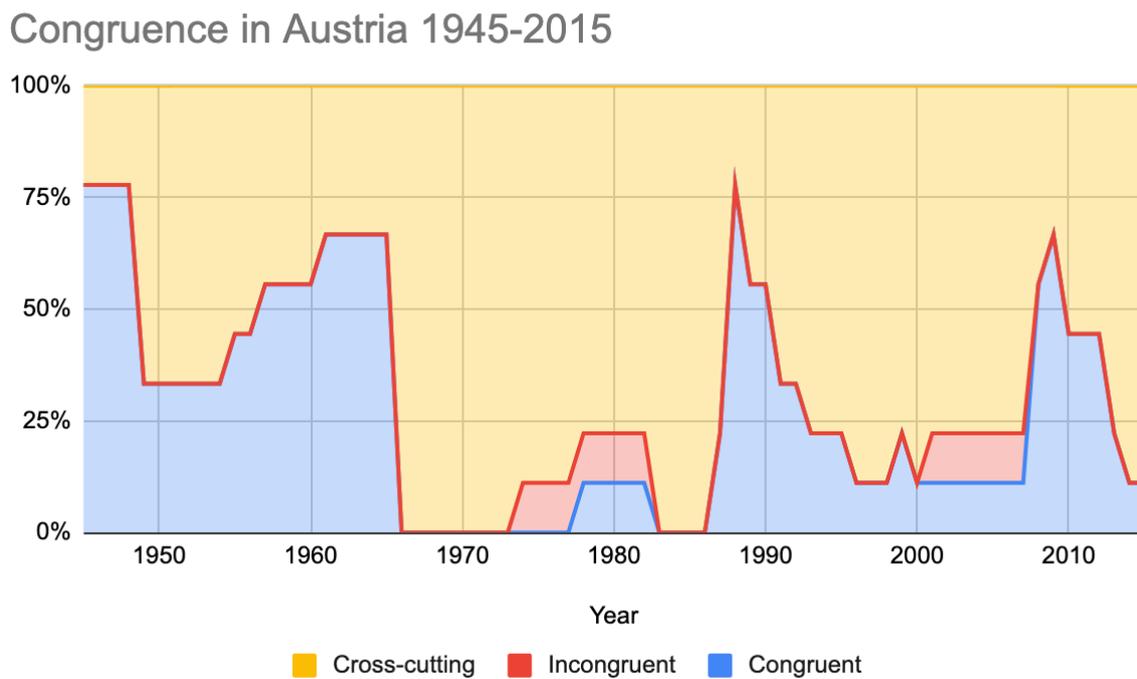
Figure 18. Cross-cutting congruence status of western European groupings 1945-2015



Within Country Trends

Austria

Figure 19. Congruence in Austria 1945-2015



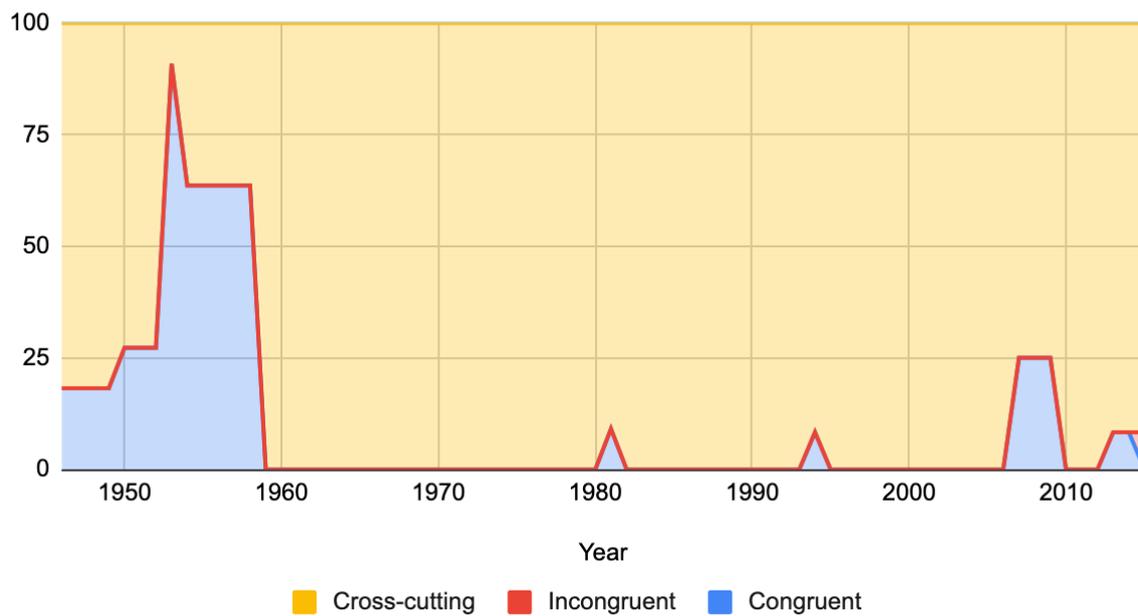
Austrian politics have been dominated by the OVP and SPO who have alternated between power at both national and regional levels and participated in grand coalitions. This is why there are few instances of regions with entirely different party compositions. It has only been the case in a few regional governments in the 1970s and early 2000s. However, there has been substantial variation in cross-cutting as the other parties, the FPO and Greens especially, have increasingly participated in regional governments. We can see that the peak and longest sustained period of matching regional governments was before the mid-60s (again 1966 jumping out as a major peak in promiscuity), followed by a period in which none or very few regions matched the national government and spikes in the 1990s and late 2000s which soon subsided. Just over half of the governments

in Vienna and Burgenland during this time period were fully congruent while 94% of regional governments in Kärnten were cross-cutting. The only regions where fully incongruent governments occurred were in Vorarlberg and Vienna.

Netherlands

Figure 20. Congruence in the Netherlands 1946-2015

Congruence in the Netherlands 1946-2015



It has been argued (in Dandoy and Schakel's book) that during the era of depillarization in the Netherlands, multiparty coalition governments are the norm at both the national and provincial levels which can lead to high government incongruence. However, we find practically no cases of a complete mismatch between the national and regional government.¹⁰ Instead the history of Dutch congruence is dominated by cross-cutting

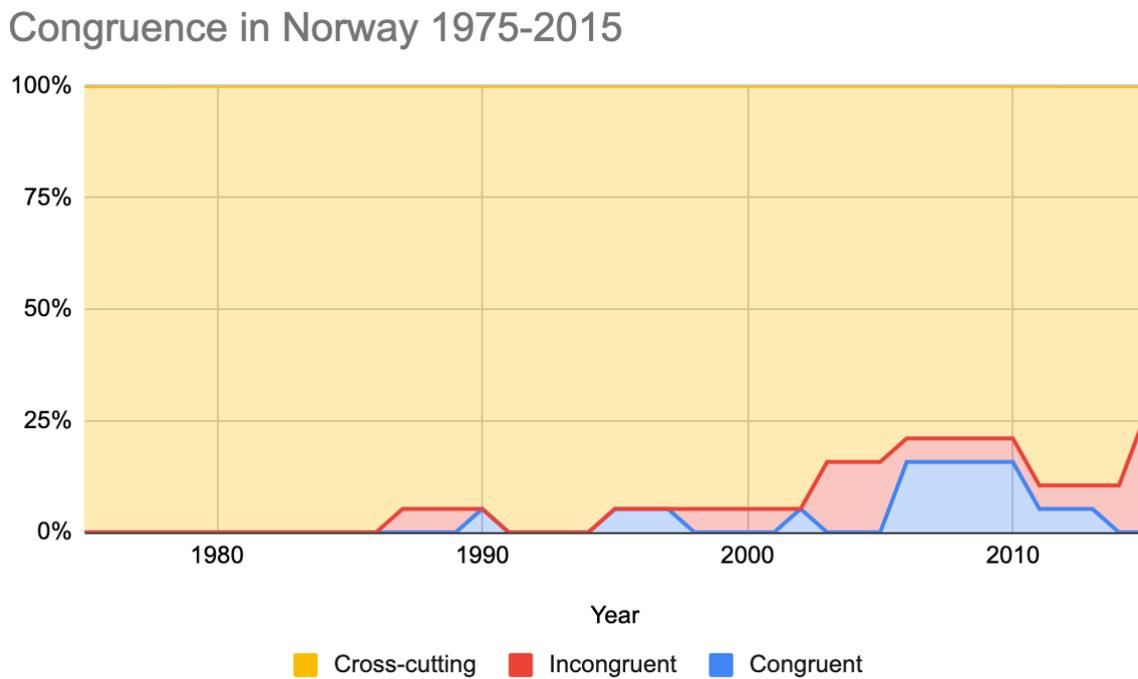
¹⁰ There is in fact one case of full incongruence in Groningen in 2015.

between provinces and the national government. The vast majority of regions have over 90% of the governments in this period cutting across the national government-opposition divide, with Flevoland seeing 100%. The decade and a half of increasing congruence from 1946 to 1958 came during the “roman red” coalition while the PVDA, Catholic People's Party (KVP), Anti-Revolutionary Party (ARP) and the Christian Historical Union (CHU) held power consistently (alongside others) at the national level and came to an end before the 1966 surge in cross-cutting governments witnessed in Austria and Germany.

While in many countries in Europe there are non-state-wide regionalist parties which never appear in the national government, in the Netherlands the national government is formed by French and Dutch language parties with only regional representation. The absence of incongruent governments shows the strength of vertical attachment between these parties on both regional and national levels of government. The past decade has seen an increase in the share of fully congruent regional governments. This has come from the PVDA-CDA-CU coalition holding power in national government and in an increasing number of regional governments (Friesland, Gelderland, Groningen, and Drenthe) though it is too early to know if this trend will persist.

Norway

Figure 21. Congruence in Norway 1975-2015

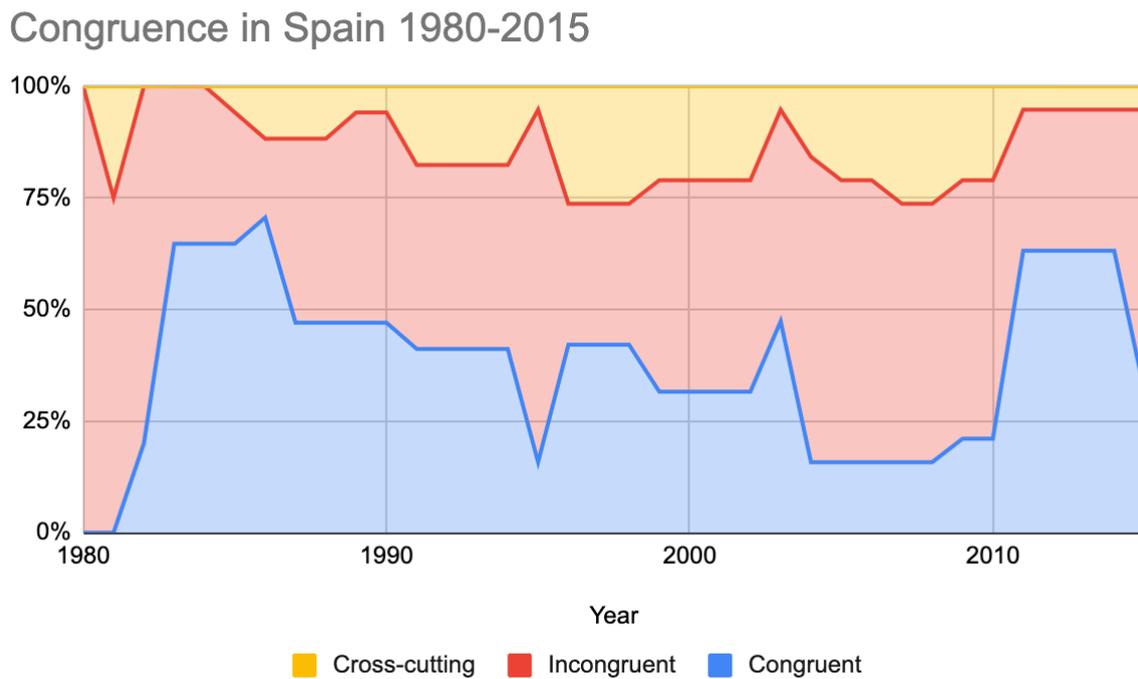


In the case of Norway, county governments are used in place of regional governments. It is obvious that these county governments very rarely completely match the national government and in fact most of the time contain national government and opposition parties. This is likely due to the proportional representation system of elections used in Norway. Another contributing factor is that unlike the consensus style governments elsewhere in Europe, Norway is characterised by minority governments at the national level for the almost the entire time period under study. 14 of the regions in this forty-year period only had cross-cutting governments. Like the overall European picture, I described at the outset however, we can see a gradual, though modest, increase in the share of regions that are either entirely controlled by national government parties or where national government parties are entirely locked out. Therefore, any variation is due to just 5 regions (Oslo, Hedmark, Nordland, Nord-Trøndelag, and Tromsø). While

Nord-Trøndelag and Tromsø have only dabbled in fully congruent or fully incongruent governments the majority of county governments in Oslo have not been cross-cutting.

Spain

Figure 22. Congruence in Spain 1980-2015



Spain is a unique case in that coalitions are quite uncommon at the national level which alternates between the two state-wide parties, the PP and PSOE, and entirely incongruent regions are common due to historic regions with successful non-state-wide parties in Catalonia, the Basque Country and the Canary Islands. The PSOE was the dominant party across Spain between 1982 and 1989 and held power in regional governments where it is traditionally a dominant party (Andalusia, Castile-La Mancha, Extremadura, Aragon and Asturias) while the PP was in the national government between 1996 and 2004. One of

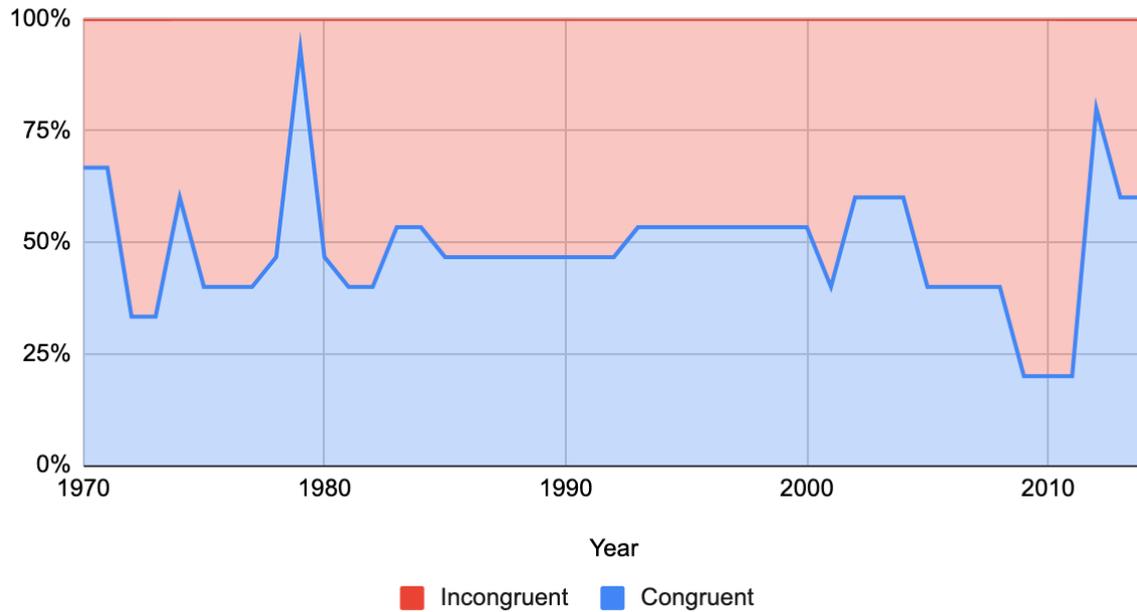
the peaks in congruence came after 2011 when the PSOE suffered one of the largest electoral losses in Spanish history and the PP took full control of most regional governments outside of those with historic non-state-wide regional movements. The second period of high congruence occurred between 1983 and 1986 when the PSOE held sway across the country.

Cataluña has only had fully incongruent governments during this period mostly due to an alternation in government between Convergence and Union and the Republican Left while the PP and PSOE have been locked out of government there. The highest rates of congruence, above 70% are for the 4 regions of Castile-La Mancha, Extremadura, Madrid and Murcia. 2 regions (Aragon and Cantabria) experience the largest share of cross-cutting governments (42%). In fact, just Aragon, Cantabria and the Canaries account for 44% of the cross-cutting governments. 7 regions (Cataluña, Castilla y León, Andalucía, Castilla-La Mancha, Extremadura, Madrid, and Murcia) have never had any cross-cutting governments.

Denmark

Figure 23. Congruence in Denmark 1970-2014

Congruence in Denmark 1970-2014



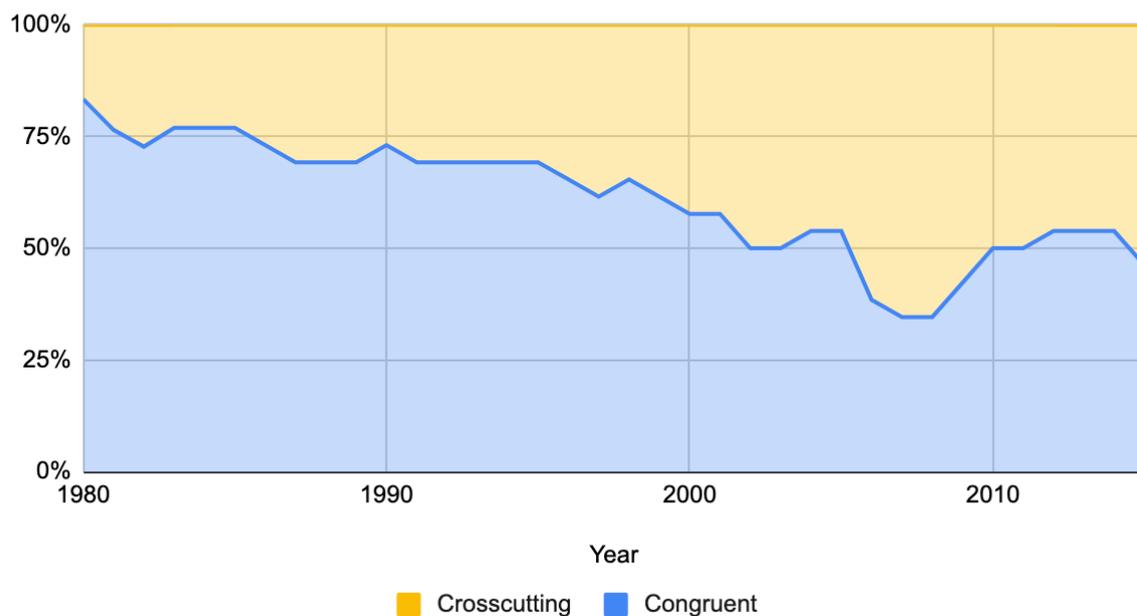
In the case of Denmark, the comparison is between the regional mayor and the national government. This makes it an odd datapoint in this project as there is no option for a cross-cutting situation as the mayorship could never be held by both a government and opposition party. In the figure, we can see how many regions had one of the parties in the national government not also holding a mayoral office. As the national government is often composed of multiple parties, it is quite likely that at least one of those parties will also hold a regional mayorship. Of the 16 regions, 9 (including the two municipalities with regional competencies) did not experience a single turnover in the party controlling the majority from 1974 to 2005; and two regions only experienced a turnover within one side of the political spectrum. In other words, because the regional mayoralty rarely changes in Danish regions, any change in incongruence is mainly due to the mayor's party losing government office at the national level. We can see that the high point for

congruence occurred in the late 1970s and the high point for incongruence occurred in the early 2010s. In Fyns and Vestjaellands 60% of mayorships found a matching party in the national government while in Hovedstaden, Midtjylland, and Nordjylland only 30% of mayorships so far have been held by parties also in the national government while 70% of mayorships match the national government in Syddanmark.

Switzerland

Figure 24. Congruence in Switzerland 1980-2015

Congruence in Switzerland 1980-2015

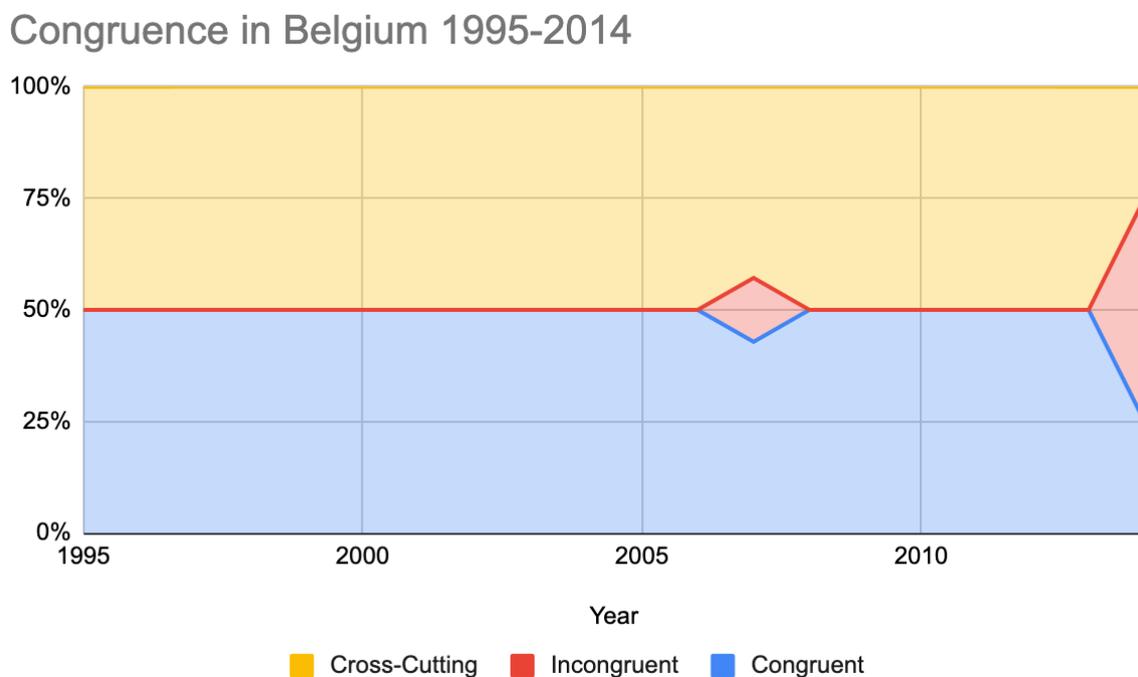


Like the Scandinavian countries, Switzerland has a system of highly rigid consensus politics where most parties are represented in the national government consistently. In all but four cantons, at least three of the four major parties have been represented in regional government over the last 20 years, however, there have never been any cases where none of the national

parties have been locked out of a canton. In 3 cantons (Basel-Stadt, Genève, and Vaud) there has never been a fully congruent regional government, and in 5 regions (Solothurn, Valais, Schwyz, St. Gallen, and Thurgau) there have only been fully congruent regional governments. It is in the other 28 or so regional governments then that the variation in the share of congruent to cross-cutting occurs. The variation we see is clearly an increase in cross-cutting governments until the mid 2000s at which point it appears to have levelled off if not declined.

Belgium

Figure 25. Congruence in Belgium 1995-2014



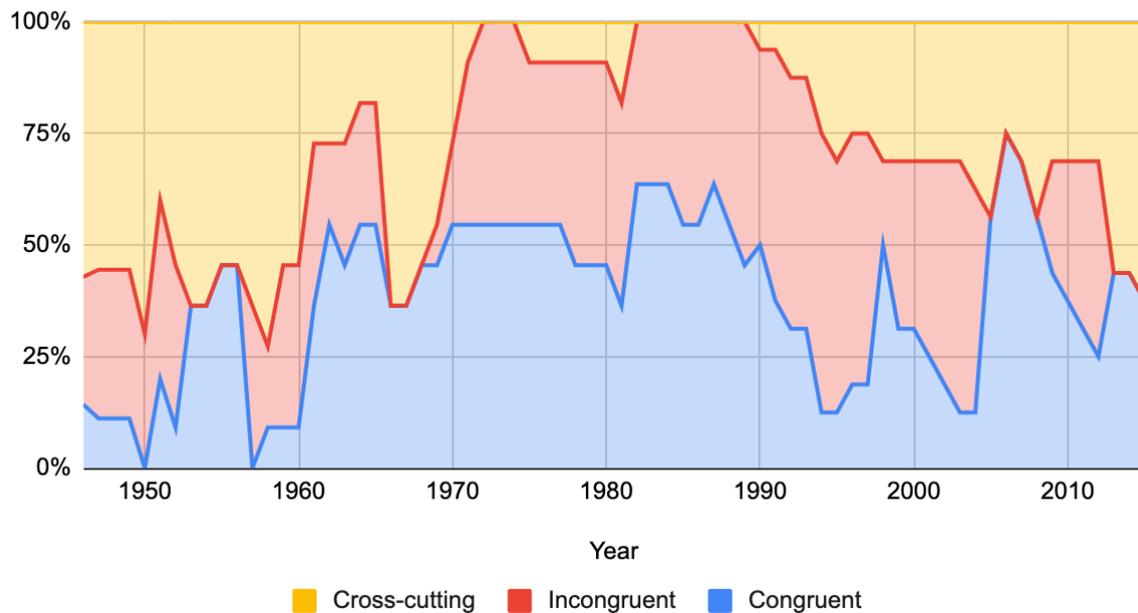
Belgium has one of the most complicated multi-level systems in Europe. It is a federal polity comprising both communities based on the major languages spoken (French, Dutch, and German) and regions based on territory (Flanders, Brussels, Wallonia) which overlap. Like many countries in Europe, there was a process of decentralisation to

subnational authorities in the 1970s and the major political parties followed suit. The Liberals, Christian Democrats, and Socialists created distinct party offshoots for each community. Given the varying dates at which decentralization of elections occurred for each community the dataset here begins only in 1995 to ensure all communities had been granted regional governments. As mentioned above, a regional government was considered congruent if it only contained any state-wide and region-specific party that held office at the national level. There are almost no cases of complete incongruence except in 2007 and 2014 mainly due to the German speaking regional government. During the rest of this period the share of regions has been perfectly balanced between those with only matching parties in government or with additional regional parties that did not make it to the national government.

Germany

Figure 26. Congruence in Germany 1946-2015

Congruence in Germany 1946-2015



It has been noted elsewhere that in Germany over time regional governments began to take on diverse hues as shifting electoral arithmetic made possible (or required) novel coalition alignments (Jeffery, 1991; Sturm 1999). It is widely assumed that divided government is the norm in Germany, especially since the period that Gerhard Lembruch focused on, when an SPD-FDP federal coalition was countered by a CSU/CDU majority in the *Bundesrat*. Yet others (Sturm, 1999) have noted that even prior to 1969 there were significant incongruences of government composition across the two levels of government.

What my data reveals is somewhat different. The 1940s and 1950s were the times when a majority of regional government had promiscuous coalitions. It is worth keeping in mind that this was before reunification of East and West Germany. The desire to have inclusive coalition governments, even containing members of the opposition, may have been particularly strong in the post-war period as a means to bring together the splintered German society (Albala and Reniu 2018). This was no longer the case in the 1960s when the country became more stable. There was then a sustained period of congruence across half of Germany's regions and incongruence in the other half between the 1970s and 1980s.

Cross-cutting regional governments were the norm in the 1940s and 1950s before virtually disappearing from the subnational landscape for 20 years but have been growing increasingly common again since the 1990s. This trend appears to be the result of a growing number of novel regional partnerships between the traditional parties of the CDU and SPD with Die Linke and the Greens. However, Die Linke has often been absent from former Western Germany and the Greens have fared poorly in the East meaning

that as the national government experiments with Linke or Green coalitions there will remain some incongruent regions.

We see the spike in cross-cutting governments for a few years after 1966 that was noted in the general trends, but perhaps more striking is the long period from 1970 until 1990 when over 35-55% of Germany's regional governments were completely incongruent. This was a period in which Germany oscillated between an SPD-FDP partnership at the national level and CDU dominance in regional governments, followed by a period of CDU-FDP partnership at the national level and SPD dominance in regional governments, with very little regional coalitions crossing the government-opposition divide.

Mecklenburg-Vorpommern is the only region in this period to not experience a case of full incongruence with the national government and is the region with the highest rate of cross-cutting (62% of regional governments). 3 regions (Bayern, Sachsen-Anhalt, and Sachsen) have been fully congruent with the national government for half this time period, while 3 others (Brandenburg, Bremen, Saarland) have been fully congruent for less than a quarter of governments. Both Hamburg and Sachsen have had less than 10% of their government cross the government-opposition divide, and the former has been fully incongruent in more than 50% of cases.

In some senses though, these aggregate incongruence figures tell us that when there is 1 federal government and 16 regional governments, their composition generally differs, on aggregate, by quite a bit. However, the nature of that composition matters. This paints a different picture of German congruence than had been supposed by some. Coalition promiscuity in Germany has recently been returning to highs it has not seen since the early post-war decades, following a long spell when many regional governments were represented by governments absent from the Bundestag.

Sweden

Figure 27. Congruence in Sweden 1994-2015

Congruence in Sweden 1994-2015



In the case of Sweden, the national government is compared to the county council boards. There is a tradition of county council boards being composed of a coalition of most (if not all) of the parties in the council, whereas the national government has consisted either of one party (the Social Democrats, usually as a minority government) or of an alliance of a few parties (as with the recent center-right government). There has been a radical swing in the 2000s as an increasingly number of county council boards are being held by parties different from those holding office at the national level. We can see in the figure above that there was a large increase in the share of county councils composed of parties not represented in the national government between 2005 and 2013, while parties from the national government and opposition were present in the vast majority of county councils

between 1998 and 2005. 9 county councils (Blekinge, Gävleborg, Jämtland, Jönköping, Kalmar, Södermanland, Västernorrland, Västmanland, and Västra Götaland) were never fully congruent with the national government. 3 councils (Gävleborg, Kronoberg, and Uppsala) were never fully incongruent and 1 council (Gävleborg) was always cross-cutting.

Limitations

There are a number of caveats and limitations readers should keep in mind when interpreting this new historical data. The first is that one should be cautious about using this data to predict future trends or to generate high confidence expectations about what patterns might exist elsewhere in the world. This paper sought only to chart the *historical* record of coalition congruence, and while there are some signs of a stabilization of trends one should not infer that this will continue without question. In addition, the first two decades of the historical record are dominated by data from just three countries and this is the period in which we see the most volatility in congruence. It is impossible to know how the patterns would have looked if more countries had decentralised authority to subnational governments earlier than the 1970s.

While it is possible to use the dataset assembled for this project to assess party-level patterns of congruence this was beyond the scope of this current project and so we do not know if the patterns we see are being driven by a large or small number of parties or a specific type of party. While the aggregate trend may point in one direction, we do not know from the data presented here whether the same cross-cutting coalition dyads are being utilized or whether parties are partnering with various different opposition parties

at every opportunity. It is hoped that such questions could be tackled using this dataset in future work.

Finally, this dataset says nothing about the range of *possible* government coalitions that were available or unavailable and how those compare to the ones chosen. The presence of ideologically closer alternative coalitions is already the subject of scholarly attention and no doubt future work could use this dataset as a foundation to extend such research to the subnational level. This was beyond the data collection resources of this project, however.

Conclusion

What can we say about the historical record of coalition congruence in Western Europe over the past 70 years? The first rather surprising finding has been that there is not a very clear trend across Europe towards greater cross-cutting coalitions as one may have expected based on the dealignment and party system change literature of the previous decades. There has been a relatively steady share of regional governments that are either composed solely of national government members or which totally lock these parties out of office. This is not to say that there is no experimentation at the regional level. In fact, a majority of regional governments across Europe are those in which a member of the national government has partnered with a member of the opposition or regionalist party. We can also see a rough clustering of historical patterns of congruence into overlapping groups. While 5 countries appear firmly committed to either a situation of mass cross-cutting (Austria, Netherlands, Norway) or its absence (Denmark, Spain), in others cross-cutting seems to be on the rise (Switzerland, Germany). What is more, other countries are marked by a near total absence of fully incongruent governments (Switzerland, Belgium,

Norway, Netherlands, Austria). Within-country analysis demonstrates that there is a wide variation in the rates at which regional governments match national governments.

Institutional Determinants of Cross-cutting Coalitions

Abstract

This paper aims to add to our understanding of longitudinal and cross-sectional variation in the rate of regional governments that match the composition of the national government. The key levers used to extract such insights are a range of regional-level institutional variables including electoral system characteristics and measures of regional authority. The results confirm a number of hypotheses suggested in the literature. Regional coalitions which cross the national government-opposition divide are more likely than congruent coalitions in regions with more self-rule, appointed heads, consensus-style politics, successful regional parties, and the further away a national election is. Cutting across the government-opposition divide is less likely when that regional government is incumbent. The pattern of effects is similar compared to fully incongruent coalitions, except that the latter are more likely than cross-cutting coalitions when regional elections are held at the same time as local elections.

Introduction

Whether to enter office with a partner, alone, or at all is a common dilemma for parties in European politics. Government formation, and especially coalition government formation, is a more fraught and complex affair in multi-level systems. Here, the option to form coalitions in regional governments that run counter to the coalition at the national government presents us with an interesting question. Agreements and policy compromises must be made at more than one level of government and often at different times on the national election calendar. Furthermore, a party vying for office at the national level may find itself considerably weaker in key subnational governing authorities and even operate in a substantially different party system. Parties often find themselves then in situations of incongruence, caught between being in government at

one level and faced with sitting in opposition at the other level or having to partner with an opponent. This is known as a cross-cutting coalition; one that crosses the government-opposition divide and is a form of incongruence between regional and national government compositions.

The literature on multi-level congruence has highlighted a number of potential advantages of maintaining congruence across multi-level government coalitions. These are coalitions in which a governing party at one level only has to negotiate on another government level with parties that it is in a partnership with already, which can streamline policy-making (Bolleyer 2006). This is in contrast to coalitions which cut across the government-opposition divide, where entrenched opposition positions can lead to gridlock (Hough and Jeffery 2006; Ştefuriuc 2009d). Such cross-cutting coalitions can also come with electoral disadvantages, a hypothesis that has been linked to regional congruence as far back as the work by Ştefuriuc (2009d). That such advantages to congruence exist beyond the national level seems apparent in evidence that forming congruent coalitions also seems to be the preferred method at the local level (Olislagers and Steyvers 2015).

Based on this, the expectation in the historical record should then be that cross-cutting coalitions are the least popular arrangement and thus should appear in lower frequencies than full congruence or full incongruence. However, the overall trend in Europe identified in the previous paper demonstrated that cross-cutting coalitions were actually the most common type of regional government, albeit with significant between-country differences. The alternative proposal is that parties actually seek out forms of cross-cutting. Regional coalitions might be used as arenas for experimentation where traditional or current rivals are partnered with. A party might be willing to partner with an opponent in order to have at least one foot in the door across a multi-level polity rather

than be locked out of it completely. Whether cross-cutting coalitions are on the whole more preferred or less preferred historically does not explain the variation that exists in the new historical record of government congruence. In this paper, I explore the institutional factors that may make cross-cutting coalitions more or less likely.

I focus here on regional institutional features (regionalist parties), regional executives (independence from the national government, cabinets or single figureheads), traditions of consociational democracy, electoral systems, and multi-level electoral cycles. This paper also contributes to the field by constituting a form of replication. I model this study very closely on one (Schakel and Massetti 2018) that used an index I have critiqued elsewhere, but substitute in my own measure of congruence and a slightly different dataset of countries and years. Replications are a cornerstone of empirical science (Koole and Lakens 2012), and this paper represents a conceptual or theoretical reproduction rather than a direct replication. While the latter tries to exactly copy the details, the former seeks to test for the same effect with distinct or improved procedures (Miłkowski, Hensel, and Hohol 2018).

I aim to test the same theoretical idea and underlying hypotheses—that institutional features of regions affect congruence—but in a novel way. More specifically, I use a more intuitive categorical measure of congruence rather than a continuous measure developed in the literature already (Bäck et al. 2013a, 377). If the same pattern of results appears while using a slightly different measure, it will increase the validity of this strain of the literature (Crandall and Sherman 2016; Lynch et al. 2015).

[Literature review](#)

As has been apparent since Deschouwer's study (2009b, 33) of Belgian coalitions, any analysis of only one level of multi-level polity risks missing the forest for the trees—a tenet that is now central to the fourth generation of coalition studies. The general

expectation in the literature, outlined above, is that congruent coalitions are the preference for most parties. However, one of the originators of the concept of congruence had already proposed that this preference may be conditional upon the institutional setting (Roberts 1989b).

The difference in powers of regional authorities, the timing of elections, and the distinct regional identities of politics can all present incentives and disincentives for each coalition strategy. They can even push the party to prefer different outcomes and different levels, in ways that conflict with the overall aims of the party. These may stand in contrast to simpler models of coalition formation that focus only on one level of government. Unfortunately, most of the existing work on coalition formation in multi-level systems has been small in scope and only explored the variation in such institutional characteristics in a limited fashion.

However, some work has drawn together these disparate findings into a set of rational-choice institutionalist factors. Two of the key works which this paper builds on offered such large-N studies. Back et al. (2013b) analyse government formation at the sub-national level in eight European countries. They hypothesize that cross-cutting coalitions are less likely to form at the regional level than fully congruent or fully incongruent coalitions. Schakel (of the dissimilarity index mentioned before) and Massetti (2018) conducted a large-N statistical analysis of congruence (13 countries from 1945 to 2015) and institutional factors. These two papers drew on hypotheses generated in the smaller qualitative studies of multi-level coalition formation, but crucially they both rely on a measure of incongruence that I have argued elsewhere is flawed. However, the institutional variables they identified still appear to be the most promising to model using my alternative measure of incongruence.

Regional authority

A key feature of the multi-level polities in Europe under study in this project are the varying competencies of the regional authorities. Ştefuriuc (2009d) argued that the power dynamics between the national and regional level would present incentives and disincentives for congruence. Similarly, Thorlakson has argued that “pressure for congruent coalitions can occur in response to the institutional incentives of ‘joint federalism’ systems, where a high degree of intergovernmental coordination is required in policy making, and sub-state governments may potentially block federal legislation” (2006, 45). Blocking powers or veto powers are clearly evident in many Western European multi-level systems. In Germany the regional governments (Länder) receive representation in the upper chamber of the national parliament, providing them with a potential avenue to press for inter-chamber negotiations at the national level that serve some regional level goal. While in Spain the subnational authorities have very little power, there is a strong central government, as has been recently evidenced in the tensions between the regional government in Catalonia and the national government in Madrid. Of course, few regional governments have any “real” veto powers on national decision making as a classical institutionalist would envision, but some may lean more in this direction than others. It is from this background that a hypothesis has been proposed in the literature, stating that there will be lower congruence where regional authorities are strong compared to where they serve more superficial functions (Bäck et al. 2013b). There is already some support from the existing literature that features of the power dynamics in federal systems affect coalition formation, though the specific effects on the likelihood of incongruent or cross-cutting coalitions remains understudied. We can look to a number of indicators of regional authority, including the powers of regional governments, how dependent the executive of the region is on the national authorities for their appointment, and the culture and norms around consensual democracy.

Following Bäck et al. (2013b) I expect regions with more exclusive competencies (the powers of the regional government over a range of regional policies such as the economy and electoral characteristics) to foster greater cross-cutting because the national governing parties will be willing to cross the divide when more is at stake. Bäck et al. (2013b) also point to concurrent competencies as another predictive feature. This bundles together a region's ability to co-determine national legislation and constitutional change, to be a member of intergovernmental national policy meetings, to distribute national tax revenues, and to exercise autonomy fiscal borrowing. The hypothesis they present was that this would create pressure for less cross-cutting so that "parties in office at the national level do not want to find themselves in a minority position in the second chamber of parliament". On the contrary, I would expect the reverse: The greater the role of the regional government in national decisions, the more willing parties will be to get into office, even when it means partnering with the opposition. In fact, the evidence presented in their study did find that cross-cutting coalitions are significantly *more* likely the more intertwined the regional and national government are. Consequently, I set this more reasonable baseline as my expectation here.

Schakel and Massetti (2018) were sceptical of the expectation that this logic would hold in situations where the upper house in a national bicameral chamber was composed of representatives from the regional executive (with the example of Germany given), and less so when composed of representatives chosen by the regional parliament or regional electorate (Austria and the Netherlands are the examples given for the former and Switzerland for the latter). Indeed, in their study on incongruence they find only a small effect of self-rule and no effect of shared rule. They also find a positive effect on incongruence of appointed (from above) heads of regional governments, and presidential systems and a negative effect for regions with a strong norm of forming consensus

coalition governments. Despite the widening of direct elections for regional governments, the leader of the regional executive is sometimes still a national appointee (the Netherlands) or in competition for authority with a parallel office staffed by a national appointee (Norway, Sweden). Consensus-style democracies are expected, in the ‘historical institutionalist’ approach, to lock in some processes of coalition formation and tend towards as oversized governments which decrease the chance of total incongruence.

Election calendar

Previous work hypothesised that highly nationalized elections should lead to greater congruence than more localised elections (Bäck et al. 2013b). Any nationalization of subnational elections is presumed to increase the closer in time a national and regional election are, as they frame both elections in the same light. Indeed, the closer the previous or the next national elections, the more this appears to influence local elections (Deschouwer and Wille 2007). The links with congruence are likely to be both direct and indirect. The electoral fortunes of a given party, and thus the availability of coalition partners, is doubtlessly tied to the timing of regional and national elections. One can imagine how concurrent elections tend to produce similar results for parties across territorial units, while the more distant a regional election is from the national election, the more apparent regional differences may become, or the more likely these elections are seen as “mid-terms” and subject to classic second-order election theory effects. Dandoy and Schakel (2013) have explored the congruence in votes across Europe in two books and have found a mixed empirical record, suggesting at least some regional distinctness that defies classic second-order election effects.

A key issue in the existing work on congruence and the electoral calendar is the chronological ordering. In the early works on incongruence, Ștefuriuc and others are concerned with how close regional elections are to the *upcoming* national elections. The

assumption is that the more the two arenas are likely to be confounded, the more regional coalition formation likely to be used as a testing ground for *prospective* coalition formation at the national level (Ştefuriuc 2009f, 6). Däubler and Debus also refer to when the formation of a government is closer to the *next* federal election (2009, 74). However, in practice the existing literature has actually focused on the *previous* national election. Däubler and Debus use the variable *time since* federal election, measured in units of days, rather than *time until* in their exploration of multi-level coalition formation in Germany (2009, 80). Schakel and Massetti's study on incongruence (among other outcomes) only includes the latest national election held *before* the included regional elections (2018). And even using this alternative formulation there are issues in the data. Upon investigation of the data in Schakel and Massetti an inconsistency arises. When a subnational election is held in the same year as a national election, the time (in years) between elections should be 0; however, in some cases they use the previous election and, in some cases, they use the current election. For example, we can look at the 2011 and 1993 Spanish general elections in their data. Ciudad de Ceuta held a regional election in 2011, and the authors cite 2008 as the last national election (3 years apart) despite a concurrent national election that year. However, Galicia held a regional election in 1993 and they cite 1993 as the last national election (0 years apart). This discrepancy is not explained by the regional election occurring before or after the exact date of the national election. Whether the impact of the election calendar is more likely to be a lagged effect, relating more to the previous national election, or an effect in expectation of the upcoming election is still an open question, therefore.

I also include the timing of the regional election in relation to other regional elections and in relation to local elections. "Regional simultaneity", as the former is called, may mean that regional elections look like a nation-wide election and replicate second-order effects, while "local simultaneity" may reinforce the local quality of the elections and push

against national second-order effects. Indeed, there is some evidence that simultaneous regional elections increase cross-cutting (Schakel and Massetti 2018), fitting the hypothesis that national government parties are electorally punished in regional elections when they function as midterms. There is also some weak evidence for a significant interaction between local election timing and cross-cutting coalitions (Bäck et al. 2013b).

In addition to the timing of regional and national elections, many states also vary the electoral system across governing levels. Where a less proportional electoral system is used at the subnational level than at the national level, it may increase the chances that a party wins a majority, thus ruling out the option for cross-cutting coalitions. Majoritarian rules also appear to significantly increase the probability of an alternating major party between regional governments formations (Schakel and Massetti 2018). A more proportional system on the other hand can increase the electoral success of smaller parties not typically represented in the national parliament or government (Deschouwer and Wille 2007; Olislagers and Steyvers 2015). Therefore, we might expect a majoritarian system to tend towards less cross-cutting coalitions, while a proportional system may increase the chances of it.

Regional parties

One clear factor that is likely to increase the chances that a regional government contains a party that is not represented in the national government is the presence of a regional party. These parties have become more common in regional governments in the 21st century (Elias and Tronconi 2011; Winter, Tursan, and Tursan 2003). Evidence from Spain and Italy suggests that ethno-regionalist parties are more likely to participate in a regional government if it would be congruent with the national government, irrespective of the regionalist party's seat share (Tronconi 2015). In cases where a regional government

would not be congruent, the larger the vote share for a regionalist party, the more likely it is to join a government, most likely a single-party government. In cases where a regionalist party has dominated a subnational government (the CSU in Bavaria is one prominent example) this has clear implications then for the chances of a regional government forming that is matching with a national government lacking these regionalists. We should therefore expect to see more complete incongruence when an electorally successful regionalist party can form a single-party government, but regionalist parties may shy away from forming cross-cutting governments completely. The strength of regionalist parties may also interact with the level of authority of that regional unit. If a regionalist party receives relatively strong electoral support in a region with substantial governing autonomy, it may be more likely to pursue office-seeking behaviour. However, it may still be wary of joining a coalition at the national level too in case it is then forced to weaken its regional position through policy compromise (Ştefuriuc 2009b, 100). The success of a regionalist party is also likely connected to how distinct such a regional identity is.

Incumbency

Clearly one of the main predictors of electoral success is incumbency (Butler 2009; FiveThirtyEight 2020; Hainmueller and Kern 2008; Hegedüs 2019; Redmond and Regan 2015). Studies of coalition formation provide evidence that new governments are more likely to be replications of the previous government than a new one at the national and local levels (Back 2003; Martin and Stevenson 2001). However, how this may interact with multi-level congruence is unclear. Will parties break from an incumbent coalition if it is incongruent with the government on another level? It is also unclear which direction this effect may be strongest. Is the national government more likely to break an incumbency pattern to fit a successful coalition pattern that was tested at the regional

level, or will regional governments step into line with the national government even at the expense of a possible incumbent majority?

Limitations

In the literature review above I have highlighted some of the major and most interesting institutional factors that might influence coalition congruence. There are of course many other factors that may help to explain the variation and patterns of coalition congruence. For instance, one could focus on the political party as the unit of observation. Such an addition would include a range of variables from how intertwined the party systems in multi-level democracies are to party-specific variables such as ideology, age, and policy goals. One could also look at the individual level of interpersonal relations within party organizations (Ştefuriuc 2009f). While surely an interesting part of the story, conducting a large-N study with this unit of analysis presented too large a data collection effort for this research project.

For similar reasons I also did not explore the influence of the availability of all possible alternative minimum winning coalitions, although clearly the opportunities for congruence to occur are constrained by the electoral success of the constituent parties across multi-level territories. Ştefuriuc did so for her study of Spanish coalition formation from the 1980s to 2007 and ended with a dataset of 1,398 observations, grouped into 55 cases of government formation opportunities (2009b). The dataset created by Back et al. covers 39,397 possible regional governments that could have been formed in 8 countries since the 1990s. Neither of these datasets were publicly available for replication. Doing the same for my study of nine countries from 1945 to 2015 would require a team of researchers to collect data and code over many years. In this project, when there is an instance of full incongruence or cross-cutting in a regional government, we do not know if a perfect match was available. In the latter case we don't know if a party snubbed the

option of siding with their national partner or if they opted to enter office with a rival rather than “sit it out” and wait for the next election to see if their national partner improved their election standings. This is surely a limitation of this study, but one that could not easily be overcome and leaves open future avenues for research and refinement. It is of course also important to mention that this paper seeks only to explain the outcome of coalition congruence or incongruence, which itself has been suggested to be one variable in explaining coalition formation in general (Olislagers and Steyvers 2015).

Data & methodology

For this paper I draw on the novel historical incongruence dataset of 9 Western European countries from 1945 to 2015 created for this project. I merge this dataset with publicly available datasets, many of which come from the personal website of Arjan Schakel and to whom many thanks are due. Each observation in this combined dataset corresponds to a regional government formed after a regional election. In cases where there have been multiple governments within a single election cycle the longest lasting government between two elections is used. Limiting the dataset to only regional government election years, there are 1,465 regional governments from nine countries (Austria, Belgium, Denmark, Germany, Netherlands, Norway, Spain, Sweden, Switzerland) in the time period from 1945 to 2015.

The main outcome of interest is the extent of congruence between a regional government and its respective national government. I include a variable with the levels “Full Incongruence” (the regional government contains none of parties that are in the national government), “Full Congruence” (the regional government contains only parties that are

in the national government, even if not all of them), and “Cross-cutting Incongruence” (if the regional government contains both a party in the national government and one absent from the national government). This differs substantially from the other major large-N study on institutional factors affecting incongruence. Schakel and Massetti use the “cross-cutting” measure developed elsewhere (Bäck et al. 2013b; Däubler and Debus 2009) that, as I have written elsewhere above, does a poor job of capturing meaningful differences in congruence by adding granularity that can be as much the result of noise or statistical artefacts than causally related to explanatory variables of interest.

A number of indicators of regional level authority are used which find a reasonable degree of variation in the countries included in this study. Self-rule (exclusive competencies) and shared rule (concurrent competencies) regional scores are taken from Hooghe et al. (2016). Sweden, Norway, and Denmark all score an average of 0 on shared rule while the other counties range from 5.8 to 10.1. A regional executive appointed by the national government, presidential executives, consensus democracies, and majoritarian electoral systems are included using dummy variables which are coded 1 when true and 0 when false. The timing of elections is measured in two separate variables by the number of years between a regional election and a previous or upcoming national election, respectively. The second-order effects of nationwide regional or local elections are measured using dummy variables coded 1-0 when all elections are held at the same time.

The role of regional parties is measured using share of seats for regionalist parties and whether a region has a particularly distinct identity (known as a ‘Rokkan region’). This Rokkan region variable is the combination of a region’s geographical isolation, linguistic uniqueness, and history of autonomy or independence. While in previous research the former was found to have a substantial effect on cross-cutting, the latter was not (Schakel

and Massetti 2018). The ‘incumbent government’ variable is coded 1 if a coalition contains the same parties that formed the previous government.

Back et al., while not studying incongruence *per se*, include their measure of cross-cutting as a predictor of coalition formation and interact it with a number of institutional variables. They find support for a positive association between cross-cutting and local simultaneity, and shared-rule and negative association with self-rule. Schakel and Massetti use the same measure as an outcome variable and find positive effects on cross-cutting of self-rule, appointed heads, presidential systems, regional simultaneity, and regional seat share, and negative effects of consensus democracies. The expectations based on the literature and analysis here are presented in the table below.

Table 15. Institutional variable expectations

Trend	Expectation
More self-rule	More cross-cutting
More shared rule	More cross-cutting
Appointed Executive	More incongruence
Consensus Democracy	Less incongruence
Local Simultaneity	More cross-cutting
Regional Simultaneity	More cross-cutting
Regionalist seat share	Less congruence
Rokkan region	More cross-cutting
Time until election	No prior
Time since election	No prior
Incumbent	No prior

Descriptive Statistics

There is limited variation in some variables of interest across these countries, as can be seen in table below. For example, the measure of Presidential systems effectively is a dummy for Denmark, since no other country in the dataset scores a yes on this measure. Therefore, in practice this variable is excluded from further analyses. Similarly, although the original dataset classified Germany as a “Mixed” system it is better seen as PR and so only Switzerland provides a case of a majoritarian electoral system.

A first categorization of the outcome variable looks at whether a regional government had all the national government parties, none, or some. This is set against the outcome of interest in this study, whether a region is cross-cutting in the table below. As noted earlier, 50% of regional governments are cross-cutting. We can see that 78% of regional governments that contain some but not all parties from the national government (partial matches) also contained a party not represented in the national government (cross-cutting), the others often being congruent single party regional governments. We can also see in the figure below that the extent of congruence varies substantially across countries.

Table 16. Institutional characteristics

	Austria	Belgium	Denmark	Germany	Netherlands	Norway	Spain	Sweden	Switzerland
Dual Executive	No	No	No	No	Yes	Yes	No	Yes	No
Presidential/Mayoral	No	No	Yes	No	No	No	No	No	No
Consensus Democracy	Yes	Yes	No	No	Yes	Yes	No	Yes	Yes
Simultaneous Local Elections	No	No	Yes	No	No	Yes	Yes*	Yes	No
Simultaneous Regional Elections	No	Yes	Yes	No	Yes	Yes	Yes*	Yes	No
Electoral System	PR	PR	PR	PR	PR	PR	PR	PR	MAJ
% Rokkan regions	20.10%	50%	6%	43%	18%	0%	52%	5%	90%
Average Self Rule	14.7	12.4	11.5	15.5	8.8	11.4	13.3	12.4	18.0
Average Shared Rule	7.2	5.8	0.0	10.1	7.5	0.0	8.6	0.0	6.8
Average years since last election	1.1	0.6	1.5	1.4	1.4	2.0	1.5	0.0	1.6
Average years until Next Election	2.3	0.8	2.2	2.1	2.1	2.0	1.5	0.0	1.6
% incumbent regional governments	68%	25%	59%	46%	59%	38%	56%	27%	68%

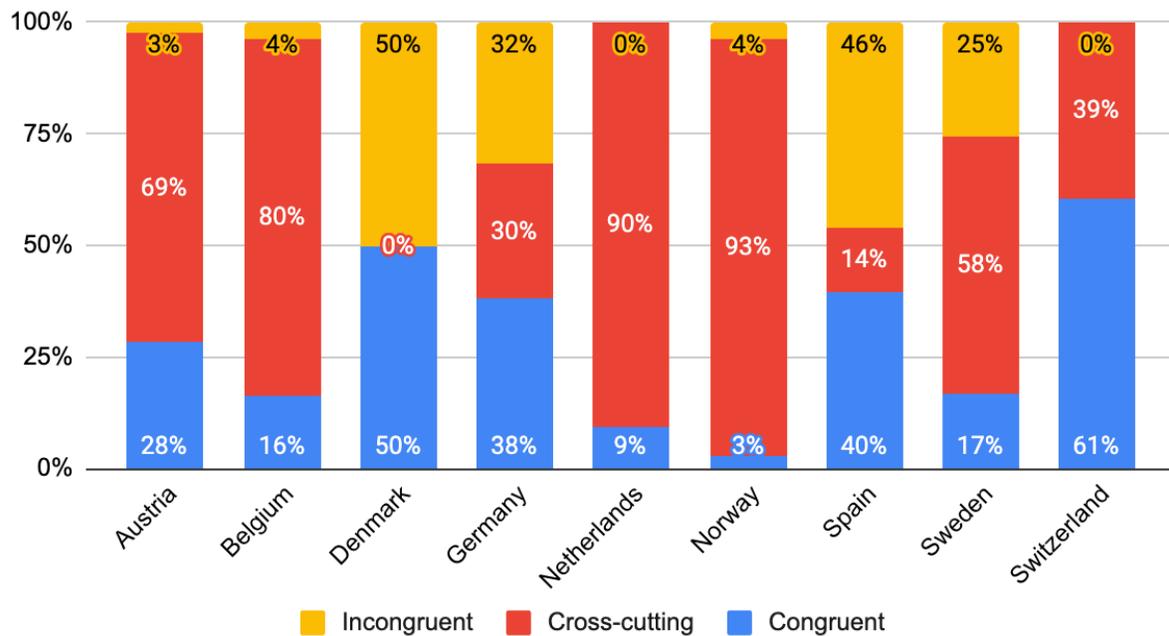
*For Comunidades autonomas (non-historic)

Table 17. Partial and cross-cutting congruence overlap

	Complete Match	Complete Mismatch	Partial Match
Congruent	230	0	207
Cross-cutting	0	4	738
Incongruent	0	286	0

Figure 28. Regional government congruence 1945-2015 by country

Regional Government Congruence 1945-2015



From the above we can observe that the states with dual-executives tend to have high rates of cross-cutting coalitions, as do most of the consensus-style countries. In the table

below, we can see that the average self-rule and shared rule scores appear lower in cross-cutting regions while the share of simultaneous regional and local elections appears higher. The seat share for regionalists parties is highest in incongruent regions. However, there are more congruent Rokkan regions than cross-cutting or incongruent ones. Incongruent governments seem less likely under incumbency and are very rare in consensus-style democracies. As an initial gut check, this suggests there may be reasonable grounds for further investigation.

Table 18. Congruence shares by institutional variable

	Fully Congruent	Cross-Cutting	Fully Incongruent
Mean Self Rule Score	14.6	12.6	13.2
Mean Shared Rule Score	6.2	4.9	5.7
% Appointed Head	8.5%	84.0%	7.4%
% Consensus Democracy	24.5%	70.6%	4.9%
% Simultaneous Local Elections	24.8%	45.6%	29.6%
% Simultaneous Regional Elections	21.3%	56.6%	22.1%
Mean Regional seat Share (%)	2.7%	1.7%	8.7%
% Rokkan region	41.2%	38.7%	20.1%
Average years since last election	2.1	1.9	8.8
Average years until next election	1.3	1.4	1.4
% Incumbent governments	37.2%	45.4%	17.4%

Rather than conducting multiple t-tests of difference in means or chi-squared tests of associations and adjusting the statistical significance threshold with a Bonferroni correction, I prefer to include all potential predictors in one regression model. Independently controlling for the possible confounders, we have highlighted above is an important step to reduce the chance of drawing too large an inference from any one finding.

I employ a multinomial logistic model since I have a nominal outcome variable. The log odds of the outcomes are modeled as a linear combination of the predictor variables. The model essentially asks: If we assumed there was no real relationship between these factors and observed the probability of a regional government having one of the congruence statuses, how surprising would the data we have be? This can be used to update one's priors about any hypothesized relationships. Note the difference between a statistically surprising result given a null hypothesis of no relationship, and the actual hypotheses of this paper that there would be a relationship (positive or negative) between these variables and congruence. Since cross-cutting incongruence is the largest category it is used as the base, so the model asks how likely is cross-cutting compared to fully congruent or fully incongruent coalitions respectively.

Results

I include models for time *until* the next national election and time *since* the previous national election separately. The models explain 29% of the variance in the outcomes. This appears to be quite a good model of patterns of congruence then, given that it does not include more classic predictors of coalition formation like ideological scores or internal party dynamics.

There is weak to no evidence in support of an effect of self-rule or shared rule on the probability of any given state of congruence, contrasting both Schakel and Massetti and Back et al.'s findings. Having an appointed (from above) head of regional government is associated with higher cross-cutting and lower congruence, but there is no statistical difference between cross-cutting and fully incongruent coalitions. This runs slightly counter to our expectations. In contrast to Schakel and Massetti, the odds of cross-cutting appear higher for regions in consensus-style democracies, though incongruence is also lower, which is more in line with expectations. If the new regional government adopts the same party compositions as the previous government (is incumbent), it is more likely to be congruent with the national government than cross-cutting.

The longer the time since the previous national election, the more likely a government is to be cross-cutting than fully incongruent. In addition, the longer it is until the upcoming national election, the more likely a regional government is to be cross-cutting rather than fully incongruent. The year-squared variable also appears statistically significant in the upcoming election models. It also appears to be the case that regions where elections are held simultaneously with local elections are more likely to be fully incongruent than cross-cutting. In contrast to Schakel and Massetti's findings, I did not find evidence for a positive effect of regional simultaneity on cross-cutting but rather the opposite: Simultaneous regional elections are associated with congruent coalitions more than cross-cutting ones. This runs counter to the theory expecting parties in national government to lose out in regional elections, which are held across the country at once like a national election. Rokkan regions were associated with less cross-cutting contrary to expectations. Partially as expected, higher seat shares for regional parties also appear to be associated with cross-cutting, though not necessarily with lower congruence.

Table 19. Multinomial Regression with Cross-Cutting Incongruence as the Base

VARIABLES	Fully Congruent (Previous Election)	Fully Incongruent (Previous Election)	Fully Congruent (Next Election)	Fully Incongruent (Next Election)
Self-Rule	0.122** (0.0621)	-0.0511 (0.0827)	0.0970 (0.0628)	-0.0633 (0.0824)
Shared Rule	-0.0212 (0.0442)	-0.0363 (0.0470)	-0.0355 (0.0444)	-0.0585 (0.0474)
Appointed Executive	-2.986*** (0.345)	-0.103 (0.555)	-3.025*** (0.350)	-0.102 (0.556)
Consensus Democracy	-1.270*** (0.265)	-4.189*** (0.494)	-1.289*** (0.266)	-4.350*** (0.498)
Local Simultaneity	0.162 (0.436)	2.158*** (0.753)	0.0411 (0.435)	1.957*** (0.754)
Regional Simultaneity	1.711*** (0.458)	-0.754 (0.813)	1.637*** (0.467)	-0.735 (0.819)
Regionalist Seat Share	-0.0493*** (0.00915)	-0.0130* (0.00724)	-0.0480*** (0.00910)	-0.0121* (0.00719)
Rokkan Region	0.467** (0.196)	0.407* (0.246)	0.433** (0.195)	0.460* (0.246)
Incumbent	0.784*** (0.152)	0.173 (0.184)	0.767*** (0.151)	0.183 (0.184)
Time since previous election	-0.0330 (0.202)	-0.540** (0.212)		
Time until next election			-0.255* (0.144)	-0.730*** (0.180)
Time^2	-0.0821 (0.0660)	0.0845 (0.0662)	0.0258 (0.0337)	0.124*** (0.0428)
Constant	-1.279 (1.050)	1.890 (1.294)	-0.704 (1.076)	2.482* (1.314)
Observations	1,463	1,463	1,465	1,465
Pseudo R2	0.296	0.296	0.296	0.296
Log-Likelihood Full Model	-1054	-1054	-1056	-1056

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Effect Sizes

What are the sizes of these statistically different probabilities, and are they practically meaningful and plausible? As this is the first large-N study using this three-level categorization of congruence, there are not many benchmarks to measure our results

against. For the moment one can look at studies of alternative operationalizations of incongruence as offering some initial guideposts.

Back et al. only note statistically significant interactions but do not provide effect sizes to get a sense of the relative order of magnitude of the associations in their study. Schakel and Massetti use the same continuous measure as Back et al, i.e., the seat share of cross-cutting coalitions (the mean is .53 and standard deviation is .34), as their outcome of interest and find the following:

- A 0.18 points increase in cross-cutting for regions where the executive is appointed by national level government
- A 0.15 decrease in cross-cutting for regions in consensus style democracies
- Simultaneous regional elections increase cross-cutting by 0.13 points
- Cross-cutting increases from 0.56 to 0.67 and to 0.77 when the seat share of regional parties increases from 5% to 20% and to 35%, respectively.
- 1 standard deviation increase in self-rule (2.95) increases cross-cutting by 0.06 points.
- No impact on cross-cutting of shared rule, electoral rules, local simultaneity, years after national election, Rokkan region, or regional party in government.

Given the different outcome measure we cannot draw direct comparisons, but it does point to which factors are likely to lead away from congruence, and that a standard deviation in regional party seat share has roughly the same impact as a change in the significant dummy variables like an appointed regional executive. However, none of these falls within a standard deviation of their measure of cross-cutting so the effects seem somewhat muted in practice.

Reporting the change in the relative log odds of being in congruent versus cross-cutting coalition for a one-unit increase in a given variable is not a very intuitive way of describing the results of such regression models. The ratio of the probability of choosing one outcome category over the probability of choosing the baseline category is often referred to as relative risk (and it is also sometimes more understandably referred to as odds). Looking at the model which uses the upcoming national election, we can clearly see that regional simultaneity greatly increases the odds of a regional government being fully incongruent rather than cross-cutting, and that local simultaneity greatly increases the odds of a region being congruent rather than cross-cutting. One can also note the reduced odds of being incongruent or congruent rather than cross-cutting for consensus democracies but note the log scale of the x-axis which makes visualisation easier.

Figure 29. Odds ratios of cross-cutting versus fully incongruent

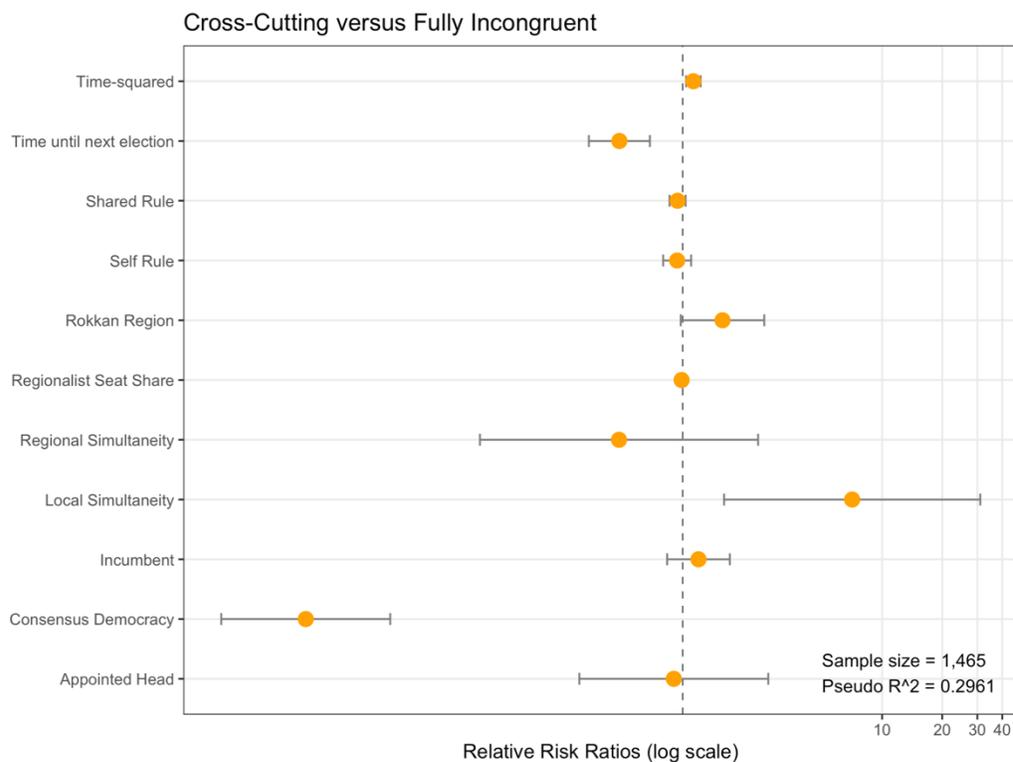
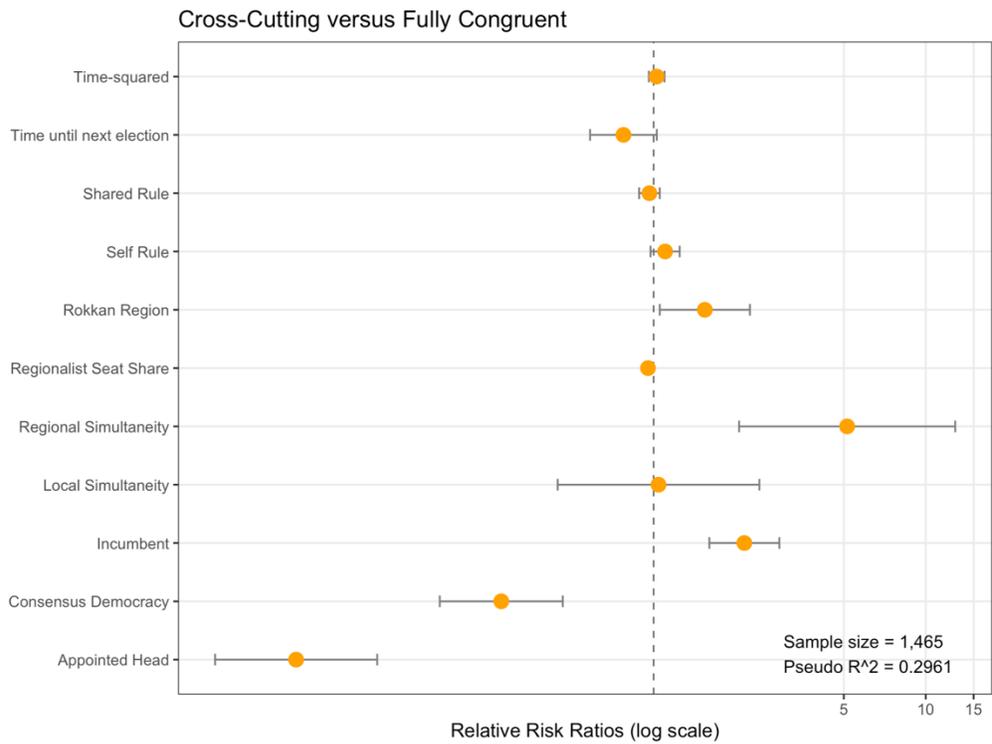


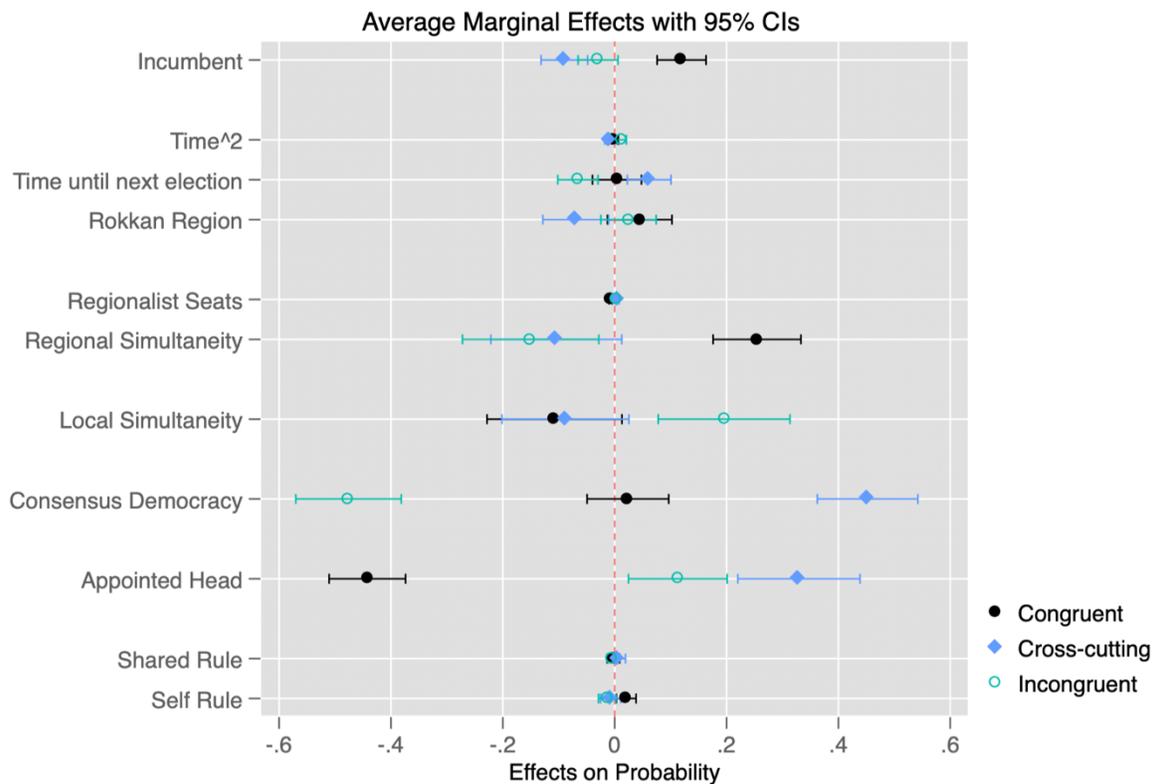
Figure 30. Odds ratios of cross-cutting versus fully congruent



We can also get a sense of the model by looking at the average marginal effects of a given characteristic on the probability of a region's congruence status in the figure below.

However, like the odds ratios above this reflects only a one-unit change and so comparing the presence or absence or simultaneous elections is not an intuitively fair comparison to a one-percent change in seats held by a regionalist party for example.

Figure 31. Average marginal effects of institutional variables on congruence



When the seat share of regional parties increases from 5% to 20%, the predicted probability of a cross-cutting coalition increases about 10 percentage points, although the size of the increase becomes smaller for higher seat shares. How do other effects in the model compare to this?

The average marginal effect of consensus democracies on cross-cutting is actually positive: 0.45. This means that the probability of a cross-cutting coalition is on average about 45 percentage points (pps) higher for consensus democracies than for non-consensus democracies with the same other traits. The effect is the opposite for incongruent regions. This suggests a regional party would have to have a very large

increase in seat shares to see the same effect on cross-cutting coalitions as a change to a consensus democracy would have (of course which is no easy task). The probability of a cross-cutting coalition is on average about 32 pps higher for a region with a centrally appointed head, 6 pps higher for each additional year before the next national election, which is the same as being a Rokkan region, 9 pps lower where the government is incumbent, 8 pps and 10pps lower when local and regional elections are held simultaneously, respectively.

Discussion & conclusion

This paper set out to investigate which institutional aspects of a multi-level democracy are associated with cross-cutting regional governments. In the above we can clearly see that institutional variables have an effect on the likelihood that a regional coalition crosses the government-opposition coalition divide. The hypotheses generated in the existing literature did not perform exceptionally well under the analysis here, despite explaining a third of the variation in congruence.

We first looked at aspects of the regional executive that were mostly hypothesised to increase cross-cutting. While no evidence was found for any effect of exclusive or concurrent competencies of regional governments, consensus-style politics and a regional executive under the influence of the central government were associated with higher cross-cutting. The second set of variables relate to the electoral system and opposite results were found for regional and local being held simultaneously. While concurrent regional elections were associated with regional governments matching the national government, simultaneous local elections were associated with regional governments cutting across the national government-opposition divide. This is at odds with the expectation that parties in national government tend to be punished in regional

elections when the latter form a nation-wide contest. Furthermore, what limited effect there is for the timing of elections in the national calendar points towards less incongruent governments the longer away the next national election is. Finally, building on research which has highlighted the unique regionalisation of European politics, we found only limited evidence in support of effects from regionalist party seat shares and regions with a particularly strong regional identity. This paper also added a new variable to the large-N studies of incongruence by testing hypotheses about the pressure to reform the incumbent coalition. The incumbency effect suggests that when a regional government reforms with the same parties after a regional election, it is more likely to remain congruent with the national government. Inversely, when a regional government breaks from the historical pattern, it then tends to more often include a member of the national opposition. This may suggest that regional parties will tend to maintain patterns of alliances so long as it means they maintain congruence with the national level but are less likely to stick with their partners when it means becoming incongruent with the national level. The final contribution of this paper was in providing a conceptual replication of a unique study that bridged literatures on coalition formation and subnational politics. Utilizing an alternative measure of congruence, we found evidence either contradicting the findings in previous work or failing to find an effect at all. Part of this may stem from how some factors tend to affect the number of seats a party holds while others affect the overall contours of the government-opposition dynamic.

The Moving Mover

Abstract

Do coalitions affect mass and individual rates of partisanship? In this paper three tests investigate the effect of patterns of regional and national government congruence on rates of mass partisanship. Using survey data from nine Western European countries between 1996 and 2015, government composition data, and two measures of coalition government congruence, this paper attempts to replicate findings from small-N and experimental studies using a large observational data set. The paper then tests a novel hypothesis that extends the existing literature to the subnational level.

Introduction

Modernisation theory predicts the weakening of party attachment over time, but only similar cross-national linear trends, leaving room for explanations of the fluctuations around this trend line (Inglehart 1997). Indeed, although party identification has declined over time, this development is anything but monotonous in most countries (Thomassen 2005). As Schmitt, Holmberg, and Berglund state, *'if there is an overall tendency, it is of loosening party bonds. But specific developments, by country and party, are so varied that any general "overall" view disguises more than it discloses'*(2005, 109). The question in this research project is to explore what role congruence plays in this broader story.

A key component of the Michigan School's social-psychological approach to party attachment is that political attitudes are relatively fixed in place by long-standing social factors. However, a recent stream of work has sought to unpack this assumption by

focusing on a relatively understudied explanation of party identification; party behaviour, especially when it comes to who parties partner with in government. Peter Mair noted the rise of coalition ‘promiscuity’ (1995, 49), meaning the increasing occurrence of unusual combinations of parties in government, but we have yet to fully understand the implications of this breakdown of traditional equilibriums—especially when such novel partnerships cross the government-opposition divide. Coalition members must balance maintaining distinct party identities whilst participating in the kind of policy compromises necessary to hold office. Such compromises threaten the ability of parties to market themselves as distinct and thus risk an erosion of support.

I will build on a relatively new model of partisanship and apply it to a large observational dataset. I test whether party identification is affected when parties abandon traditional coalition strategies and govern with traditional rivals. I find mixed evidence regarding the effects of allying with traditional rivals at the national level, which cuts against some of the existing findings in the literature. In my novel addition to this literature, I find evidence that partisanship weakens when parties choose subnational coalition partners that are different from national level partners.

Theories of Partisanship

Unmoved Mover or Running Tally

Despite more than three decades of lively debate on the nature and origins of party attachment, there is still disagreement about whether it is largely instrumental in nature and influenced by electoral performance or if it is a firmly held identity that is unmovable. In fact, there is still debate on what is being measured; party attachment, party

identification, partisanship, and partisan attitudes have all been used to label different concepts or used interchangeably for the same meaning. Throughout this paper I will use the terms interchangeably to speak to a wider set of the literature.

There are three main camps in this literature. First, the Michigan school conceives of party attachment as inherited and persisting over time, like a religious affiliation (Campbell et al. 1980; Converse 1969; Donald Philip Green and Palmquist 1994; Miller, Jennings, and Mann 1994; Sears and Valentino 1997; Shachar 2003). This exogenous theory sees partisanship as an affective “standing decision” (Key 1956) which is immune from short-term political forces. This stable attachment then shapes decisions about most political choices, like voting, thus making it an “unmoved mover”. In this approach party attachment is as much a social identity as any other tribal grouping characteristic like religion or class (Donald P. Green, Palmquist, and Schickler 2002).

On another side of the debate, theorists relying on rational choice models view party attachment as a choice that is updated in response to short term factors like candidate evaluations, vote choices in presidential elections, or relative issue positions (Brody and Rothenberg 1988; Converse and Markus 1979; Fiorina 1981; Franklin and Jackson 1983; Meier 1975; Page and Jones 1979). Thus, it forms a “running tally” where party attachment is endogenous to political events. This view sees party attachment as the natural outcome from utility maximisers. The main criticism of the running tally approach is that if attachment is being constantly updated, then it is not really an attachment at all.

Some other recent additions to this debate have included the Bayesian perspective (Achen 1992) that suggests that voters update their party attachments, but do so at a decreasing rate over time as these attachments become stronger and more embedded in their

identity. Like Achen, Green et al. (2002) suggest that individuals engage in updating, but they argue that voters update their image of parties as social groups. This model posits that when party attachment is new and weak it is more easily swayed by short-term events and considerations, but over time it hardens and becomes less swayed by such things.

Finally, the classic cleavage-based approach posits that it is an individual's membership in certain networks, like trade unions, that determines which party they identify with (Lipset and Rokkan 1967). The social-identity approach has looked to evidence of long run stability in partisanship for support, while the reoccurring evidence of partisan volatility has undermined this support. How to reconcile these contrasting findings? One answer may lie in what is being measured and how.

Words or Actions

Perceptions of party policy positions are seen as a key route through which attachments are formed. The existing literature reveals an Atlantic divide, where studies of US parties find a relationship between voter perceptions of party positions and changes in those positions, while research on European parties finds the opposite (Adams, Ezrow, and Somer-Topcu 2011; Adams and Somer-Topcu 2009; Tavits 2007). Fortunato and Stevenson (2013) argue that this difference is due to how position changes are measured. In the European case, ideological change has been measured using policy *promises*, while US studies have looked at policy *actions*. The claim was made that "if the analysis of the perceptions of European voters were to change its focus from party promises to party actions, we may well find a link between party positions and voter perceptions" (Fortunato and Stevenson 2013, 460). Adams *et al.* (2011) carried out the main cross-national study of the influence of policy promises and found that the public does

not move in lock-step with parties, often failing to update their perceptions of parties when party manifestos change. This appears to have dealt a major blow to the traditional European approach and renewed interest in investigating party actions.

Previously, many scholars of partisanship have not thought to relate it to party behaviour or assumed it is not associated with it (Campbell et al. 1980) but the recent wave of research, set in motion partly as a result of Adams *et al*, has questioned this assumption. A striking conclusion from this research is that the very actions of parties, those observable to the public anyway, have more effect in how voters perceive a party than what parties say during election campaigns (Adams, Ezrow, and Somer-Topcu 2011; Fernandez-Vazquez 2014) and voters will update their views based on party actions that have real world consequences (Falcó-Gimeno and Fernandez-Vazquez 2015; Grynaviski 2010; Lupu 2015). A particular finding, upon which this paper takes as its foundation, is that coalition formation is a key observable action which gives cues to the public about a party's position. There is evidence from 18 democracies that where an individual places a party is affected especially by one important, and common in Europe, behaviour: coalition formation (Fortunato and Stevenson 2013). Parties that share government are seen to be ideologically closer than parties that do not form governments together and appear closer than left-right analyses of party manifestos imply. It has also been shown that providing signals of intended coalitions shifts member parties' perceived ideological stances (Falcó-Gimeno and Muñoz 2017). This 'coalition effect' has been further investigated and substantiated across a range of issues and cases.¹¹

¹¹ There is evidence that voters map the Prime Minister party's position onto the placement of junior partners but not vice versa (Fortunato 2015), voters infer the position of parties on European integration matters using a heuristic based on who they partner with in a coalition (Adams, Ezrow, and Wlezien 2016), misperception decreases when intra-cabinet conflict is greater (Spoon and Klüver 2017), and simple decision-rules may be at play as voters tend to place the coalition closer to their preferred party in the coalition (Meyer and Strobl 2016)

There might be something different about the complex ties in coalitional systems that forces voters to use simple heuristics to gather information about party positions quickly at low cost. Individuals can obtain information about coalition membership relatively easily and thus it may serve as a good proxy for party policy compromise, rather than reading through the detailed government agenda and cross checking with party manifestos. Only a small minority of individuals are likely to engage in such costly information gathering activities, and the majority are likely to rely on simple metrics which summarise the position of parties into “brands”. This is the starting point for the model of partisanship I will apply in this paper.

The Party Brand

Lupu (2011) proposed a model which seeks to reconcile the social identity perspective of the Michigan school with the apparent variation in partisan stability. Lupu argues that party attachment is only an ‘unmoved mover’ if parties are also unmoved. By taking parties as a variable, he theorises that the diluting of party brands (through coalition making) should weaken partisanship without abandoning the notion of a social identity. Lupu argues that information which contradicts prior beliefs will dilute a party’s brand, while information that reinforces priors strengthens party identification.

This line of argument parallels work completely outside of the realm of political science on consumer brands and marketing where it has been found that consumer attitudes and attachments towards a brand become weakened when competitive brands form alliances (Ruth and Simonin 2003; Simonin and Ruth 1998). In case studies of South American democracies and in survey experiments, Lupu finds evidence for the idea that coalitions indeed dilute party brands and weakened party attachment (2011, 2013). In another paper Lupu finds that party polarisation strengthens mass partisanship, and theorises that

party convergence should weaken it (2015). However, in that study he only looks at perceptions of party distance, while here I will look at actual behaviour. I also aim to extend this theory to the subnational arena where a new line of inquiry has explored whether the coalition formulae differ across levels of government.

Coalition congruence

Political competition increasingly occurs in multi-level settings because worldwide over three billion people live in federally organised or decentralised states, providing parties with the choice to allow a variety of coalition partners to cater to the unique political demands in each subnational authority, or to maintain coherent partners across levels even at the expense of holding governing office. The conflict between coalition compositions between the national and regional level is what is known as *vertical coalition congruence*. What may matter is not just the coalition composition at each level, but also the interplay across levels. It may be that party attachment is not simply eroded by perceptions of coalitions *within* a government, but also *across* governments. This is what I aim to test in this project. At the time of writing there had yet to be any substantial research on any links between coalition congruence and partisanship.

Theoretical framework

As mentioned above I will rely primarily on Lupu's branding model of partisanship. For the sake of space and simplicity I will give only a brief account of his model and concepts, and direct interested readers to his dissertation and papers on the subject (Lupu 2011, 2013, 2014, 2015). The outcome of interest in this study is party attachment, or rather the variation in it. I will, like Lupu, use the terms partisanship, party attachments, and party identification interchangeably to refer to the broader idea of an individual's self-

identification with a political party. One can imagine this attachment as lying on a continuum, where upon reaching a certain arbitrary threshold a person is willing to tell an interviewer or write in a survey that they identify with a party.

Micro-level mechanisms

A key part of this theory is that party attachment is related to the position of the party itself. What a party stands for is summarised in a low-cost, but informative brand. Typically, the most salient issue dimension for an individual is Left-Right and so one can imagine that where someone perceives a party to lie on this spectrum constitutes its brand. Lupu's model takes from social identity theory the concept of comparative fit. In brief, a voter identifies with the party that they consider mirrors their own positions most closely and has more confidence in this belief when the alternative party images appear in stark contrast. Conversely, parties that do not mirror an individual's own image will not be as strongly attached to.

The central argument is that party actions create cues about the position of a party that an individual will absorb and will weaken or strengthen attachment to that party. Voters learn about party brands by observing party behaviour, rather than rhetoric, over time and base their psychological attachment to a party on these brands. A strong brand is one about which voters feel relatively certain, while a weak one is perceived as ambiguous. When brands or positions are clear, people can form strong attachments to them, especially when the brands of other parties are different again. When uncertainty about a party's position increases, the brand becomes weaker because the party appears to be more heterogeneous; knowing a candidate's party affiliation now provides ambiguous information. The voter will perceive less fit with the party and thus less attachment. Convergence among parties, the inability of voters to meaningfully distinguish their

brands, similarly weakens attachment. Even when certain about a specific party's brand, attachments will be weak where this party is perceived to be substitutable with another.

One action that can signal convergence is coalition making, because "coalition cabinets essentially formalise a relatively broad-ranging and stable (in the medium term) policy compromise between parties" (Fortunato and Stevenson 2013). It signals that party positions are closer together; closer than they were as distinct non-partners and compared to other non-partners. From this, a simple restatement of Lupu's, and Fortunato and Stevenson's hypothesis is sufficient here:

H1: Convergence by parties—that is forming a coalition with a traditional rival and making their brands less distinguishable—weakens party attachments.

The aspect of the model that I seize upon for my addition of congruence between national and regional governments is the notion that an action that is typically at odds with the perception of the party will dilute the effect of the party cue, since contradictory cues send more ambiguous signals and generate uncertainty.

While much of the recent literature has focused on national level governments, it may be reasonable to assume that these effects are also present at the subnational level. In fact, having coalition partners that are different at the regional and national level might be another aspect of coalition behaviour that signals coherence with priors, or not. While forming a novel coalition at one level may send a contradictory signal about the position of a party, it stands to reason that forming an additional alternative coalition at another level of government sends even more of a contradictory signal about that party's position. If a party has gone out on a limb to explain away why it was necessary to form a coalition with a certain party in order to best fulfill its electoral promises, then it may be difficult

to convince voters of the same argument but with a different party at another level of government. Arguably, the most salient and noticeable contradictory coalition to form is one which cuts across the government-opposition at another level of government.

H2a: Forming coalitions across levels of government that are not congruent will weaken party attachment.

H2b: Forming cross-cutting coalitions across levels of government will weaken party attachment.

There are two causal mechanisms that may be at play here. Firstly, it may be that coalition-making with different parties across government levels generates uncertainty about a party position, and for those observing this it may weaken the party brand enough that they no longer feel attached. It could also be the case though that when a party forms a coalition it causes the individual to move their position of the party along the ideological spectrum. In this case, it may not be uncertainty but rather a new clarity that the party is not as close to the individual's position as once thought. At the same time the image of the party may shift away from some voters and closer to others such that it replaces the party that was once considered the closest ideologically.

Spoon and Klüver found that parties that govern in a very homogenous cabinet in which all coalition parties share similar policy views suffer from a high degree of misperception (Spoon and Klüver 2017). In a heterogeneous coalition comprised of coalition partners that hold diverse policy positions, voters may have fewer problems distinguishing between the brands of each coalition member. Therefore, even if a party partners with different parties at the national and regional level, it will matter whether the partners are ideological rivals. When congruent coalitions with ideological allies are common party attachment will be weaker than when congruent coalitions with ideological rivals are

common. This leads to an alternative hypothesis quite at odds with hypothesis 1; forming coalitions with ideological rivals should strengthen attachment.

H3: The effect of congruence is weaker when coalition partners are ideologically similar.

Many of the hypotheses developed here stem from observations or theories at the individual level, however due to data constraints discussed below, here we test them at an aggregate level. In countries with high frequencies of cross-cutting coalitions, multiple parties must be forming contradictory coalitions; as a result, it may only be the small share of voters who already align themselves with parties permanently in opposition that will be much affected by what the major parties are doing in their coalition strategies.

Data & design

Much of the evidence about the ‘coalition effect’ has come from lab and survey experiments, but these treatments lack some external validity because they are often removed from the ordinary milieu of everyday politics. In the real world, voters may be simultaneously exposed to both information that makes brands clearer and information that makes brand more ambiguous. Studying the processes, I have described observationally requires investigating whether the tilt of voters’ observations of party systems in a given time period leans substantially towards converging or diverging party patterns. Due to data collection limitations, I cannot focus on specific parties here, but will instead look at overall mass partisanship.

I employ a set of nationally representative surveys fielded before or after national elections by combining modules 1-4 of the Comparative Study of Electoral Systems (CSES) for the time period from 1996 to 2016. This dataset consists of I merge this dataset

with the Comparative Politics Data Set (CPDS) in order to include country-level variables relating to governing coalitions (Armingeon et al. 2015). I remove those countries which are not included in both data sets. I also include two datasets measuring the main explanatory variable of interest in this project: congruence. I discuss both below.

The basis of this study rests on three key concepts, partisanship, convergence, and congruence. I measure partisanship using the survey's question "*Do you usually think of yourself as close to any particular party?*" in CSES data, and code a yes/no binary variable. There are extensive debates about how to measure party identification in surveys, and CSES is not perfect. The feeling of closeness to a party is clearly a 'softer' measure of partisanship, which makes it easier for respondents to express an attachment rather than a 'harder' measure of long-term loyalty, but it still can be separated from vote choice and used in nations with diverse party systems. Differently worded questions and the translation of partisanship into multiple languages will generate some variation. Therefore, I am cautious about the interpretation of any single national case from these data. This is why I focus my attention on broad cross-national patterns and testing the correlates of partisanship. However, this CSES question is widely used in other comparative studies (R. J. Dalton and Weldon 2007; Lupu 2013, 2015) of partisanship.

In Lupu's experiment, he presents participants with information that would suggest that parties are actually less distinguishable than assumed, operationalised as when ideologically rival parties signal convergence through forming an alliance. To measure convergence, I combine two variables from the CPDS. The first measures whether a cabinet is composed only of parties from the same ideology, or whether it crosses the ideological divide. I take this as a measure of rivalry; though of course rivalry could exist between parties of the same ideology, for the purposes of testing this theory, we are only interested in clear ideological contrasts. The second measure is government type, which

allows one to distinguish between coalitions and non-coalitions. Therefore, I have a variable which highlights when there is a coalition composed of ideologically rival parties. Other ways to create this variable might have been to measure when the two largest parties form a coalition, or when parties which have never worked together form a coalition. Due to data constraints, I could not explore these options in this paper. If one were interested in the partisanship rates of a specific party, it might be more appropriate to measure rivalry as within-ideological camps; a right-wing party supporter may then find it more difficult to distinguish their party when it is allied with a similar right-wing party. However, this would require a massive data-coding effort which is beyond the scope of this paper, and so for the moment I am concerned with overall rates of party attachment. I follow up on this line of inquiry in the subsequent paper in this project.

To test my other propositions—which is the novel addition of my research project, i.e., that congruent coalition strategies affect partisanship—I will rely on two sources of data for robustness. The first is a freely available congruence dataset compiled by Dandoy and Schakel (2013). These authors employ a dissimilarity index to measure the similarity between government composition at the national and regional level. There are some issues with this index, which I took up as the subject of an earlier paper, but for the moment it represents the most comprehensive and easily available data of its kind. The dataset contains a dissimilarity score for 13 Western European countries for the years 1945-2009. As this excludes some countries included in CSES (mostly non-European countries), analyses including congruence have a sample size of 53,701 observations.

I also employ a second measure of congruence that I have created and that stands as one of the main contributions of this research project to the literature. Variables in this dataset instead measure the percentage of regional governments in a country that are congruent, incongruent, or cross-cutting as defined earlier in this project. This dataset I created

contains data for the years 1945-2015 from Austria, Belgium, Denmark, Germany, Spain, Norway, Sweden, Switzerland, and the Netherlands. These states have varying levels of federalization, and while they all have some idiosyncratic political histories, they share some common features of European democracy and are at the same level of development where modernisation theory would predict similar secular declines of party attachment across countries.

It is of course important to also include variables which have been shown to affect party attachment in general. Ideological *extremists* tend to hold stronger party attachments (Granberg and Brown 1992) so a variable measures how far from the centre a respondents placed themselves on the left-right scale. Union membership is included to account for social cleavage (Marks 1993; Zuckerman, Dasovic, and Fitzgerald 2007). I control for political knowledge by including a level of education variable. I also control for demographic variables of age,¹² gender, and household income. At the country-level I include a measure of the number of legislative parties as some systems may tend to converge more than others by virtue of having fewer or more parties. Parliaments with numerous parties are more likely to create conditions where parties must form coalitions, possibly with rivals. The first is an index of legislative fractionalization of the party system (Rae 1967), and for robustness I use the effective number of parties on the seats level (Laakso and Taagepera 1982). Regionalised identity likely also increases the chances of regional governments being held by parties in the national opposition so a measure of ethnic and religious fractionalization is included (Alesina et al. 2003).

¹² I include a squared age term to capture a potential quadratic relationship, whereby partisanship levels off after a certain age (see Converse 1969).

Results

Ideological rivals and Mass Partisanship

Is ideologically promiscuous coalition making at the national level associated with mass partisanship as small-N case studies and experiments have suggested? Including the data from CPDS there are 1,580 governments represented in the data. Curiously there are 85 cases which the dataset’s authors coded as both a single party government *and* as being composed of ideological rivals. Contact with the authors revealed that this was because data was listed by year (not by government) and so there are cases of a change of government during the same year or a change of cabinet composition but not of government type. For this reason, this data was dropped from the analysis.

Table 20. Number of governments by composition

Government	Single Party	Coalition	Total
Ideological Hegemony	551	346	897
Rival Ideologies	85	598	683
Total	636	944	1,580

First, we can look at the percent of the sample who reported being close to a party under each category and compare the observed values to the values we could expect if there was no relationship between the two. A chi-squared test shows a statistically surprising association between partisanship and government type (if one assumed there were no relationship between the two variables), so we can *act* as if they are not independent and be right most of the time in the long run. A small note here on terminology that while something may be statistically *surprising* based on a null hypothesis of no association,

such a result is actually not surprising based on the hypotheses outlined above which propose such an association. Such null hypothesis testing is flawed in some ways but still mostly the convention in political science and will be used here due to constraints which prevented alternatives like equivalence testing.

Figure 32. Partisanship by government type

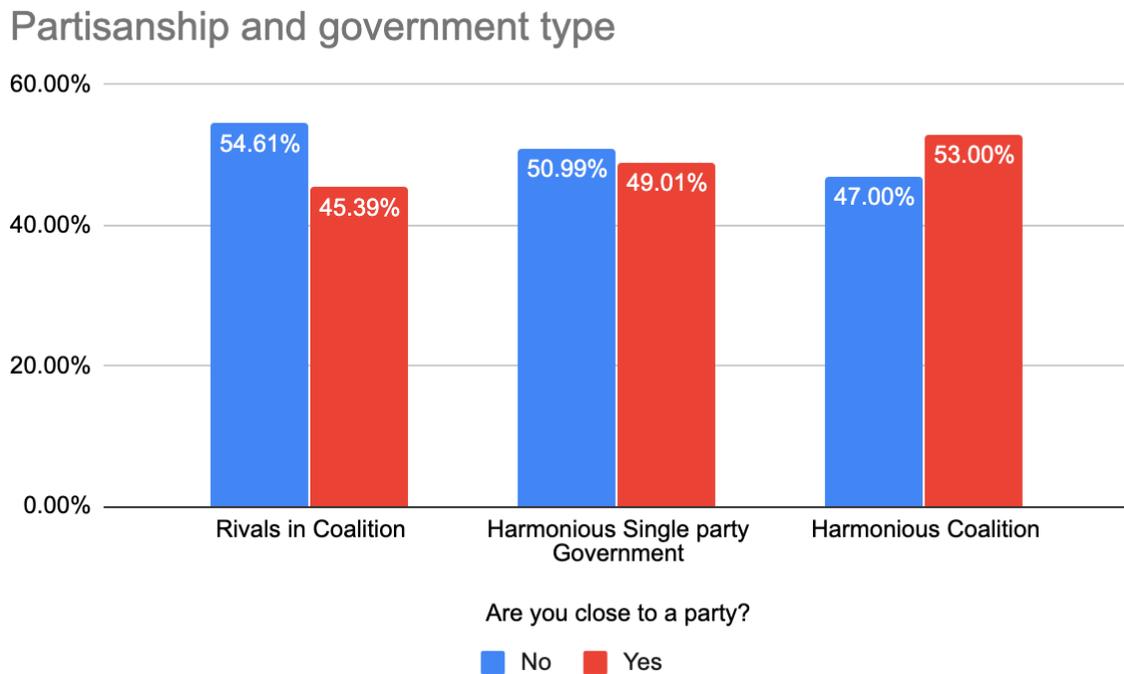


Table 21. Partisanship by government composition

Are you close to a party?	Rival Ideology	Harmonious single govt	Harmonious coalition
No	54.61%	50.99%	47%
Yes	45.39%	49.01%	53%
Total	100%	100%	100%
Pearson chi2(2) = 436.7585 Pr = 0.000			

Looking at a simple binary which combines the harmonious single party governments and coalitions, we also see a statistically surprising association. The descriptive statistics point in the direction that there is a higher percentage of non-partisans in situations of ideologically rivalling coalitions.

Figure 33. Partisanship and government ideological composition

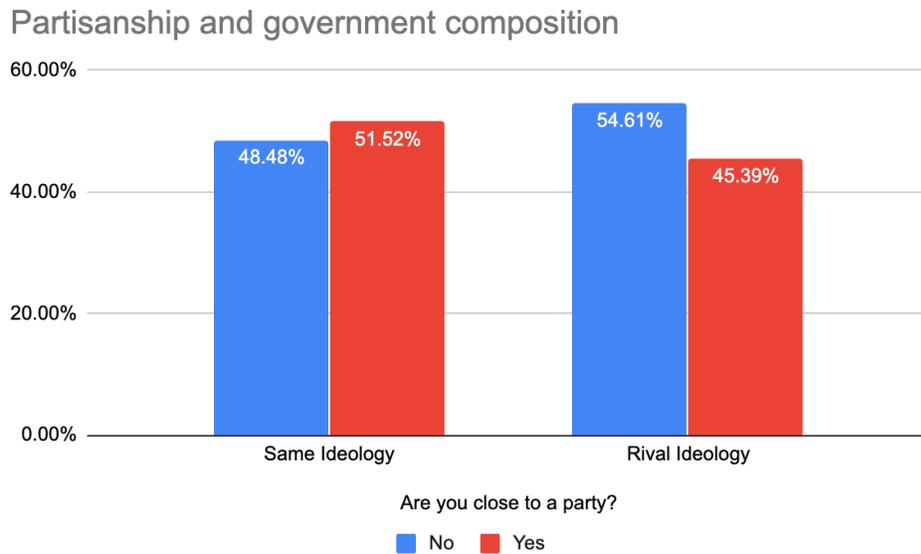


Table 22. Partisanship by government ideological composition

Are you close to a party?	Same Ideology	Rival Ideology	Total
No	48.4%	53.9%	51.7%
Yes	51.6%	46.1%	48.3%
Total	100%	100%	100%
Pearson chi2(1) = 242.5006 Pr = 0.000			

However, a chi-squared test only tells you that your data is surprising given the null, but not what is driving the surprise. Thus, the statistical significance of the test doesn't indicate whether particular differences (whether highlighted in the write-up or otherwise) are statistically significant. For this we need more sensitive testing.

We can compare the average rate of mass partisanship of countries between these two groups (rivals and harmony). We find that the mean percent of partisanship is 51% under ideological harmony and 45% under rival ideology, which is a statistically surprising result given a null hypothesis of no difference, and a long run error rate of 5% (Welch's t-test p -value < 0.00001).

A regression model may allow us to tease out this relationship while controlling for other potential confounders. The table below shows the results of a number of regression models of partisanship and the various predictive factors discussed above. Models 1 and 3 were produced using the *logit* command in Stata 14, while Models 2 and 4 were produced using the *melogit* command. Models 1 and 2 use all available data from the CSES and CPDS data, while Models 3 and 4 use only those for which there was also congruence data (i.e., the Western European democracies of key interest in this project). In all models, a government composed of ideological rivals is statistically significant and the direction is *positive*. This suggests that living in a country ruled by a rival coalition, rather than other forms of government (harmonious coalitions or single party governments), actually *increases* the likelihood of identifying with a party (any party, as this is mass partisanship). This then contradicts the formulation of hypothesis 1 by Lupu as well as Fortunato and Stevenson, and instead lends support to the alternative hypothesis proposed by Spoon and Klüver. Most other variables are statistically significant and show an association in the direction that the literature suggests, with the exception of social heterogeneity, education, and effective number of parties in the multi-level Western Europe model (Model 4).

Table 23. Logistic Regressions of Party Identification and Rival Coalitions

VARIABLES	All Data			Western Europe
	Model 1.	Model 2.	Model 3.	Model 4.
Rivals	0.174*** (0.0254)	0.351** (0.139)	0.256*** (0.0358)	0.427*** (0.128)
Extreme	0.296*** (0.00754)	0.304*** (0.0176)	0.274*** (0.0113)	0.272*** (0.0247)
Age	0.00795* (0.00409)	0.0115 (0.00759)	0.00291 (0.00588)	0.00323 (0.0116)
Age ²	0.000119*** (4.09e-05)	9.27e-05 (7.20e-05)	0.000169*** (5.84e-05)	0.000166 (0.000108)
Female	-0.144*** (0.0223)	-0.165*** (0.0274)	-0.167*** (0.0319)	-0.173*** (0.0324)
Education	0.247*** (0.0190)	0.143** (0.0607)	0.102*** (0.0278)	0.102 (0.0790)
Union member	0.238*** (0.0271)	0.166*** (0.0321)	0.246*** (0.0356)	0.210*** (0.0408)
Household income	0.0569*** (0.00862)	0.0765*** (0.0200)	0.0852*** (0.0125)	0.0855** (0.0349)
Social heterogeneity	-0.451*** (0.0615)	-0.525* (0.291)	0.218** (0.0852)	-0.0432 (0.346)
ENP	-0.297*** (0.0103)	-0.177*** (0.0532)	-0.148*** (0.0171)	-0.110 (0.0718)
Constant	-0.526*** (0.108)	-1.233*** (0.340)	-1.240*** (0.160)	-1.508*** (0.446)
Random Effect		0.835*** (0.288)		0.289* (0.157)
Observations	42,330	42,330	21,745	21,745
Pseudo R2	0.0712		0.0528	
Log-Likelihood Full Model	-28384	-27678	-14722	-14764
BIC	29554	29647	29554	29647

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

The coefficients of logistic regressions are not very intuitive. For example, having a coalition composed of ideological rivals, versus another type of government, increases the log odds of identifying with a party by between 0.17 and 0.42. To make this more intuitive, we can look at odds ratios. The odds of identifying with a party (versus not identifying) are roughly 1.3 times higher among rival coalitions than non-rivals.

Figure 34. Odd ratios of partisanship (all data)

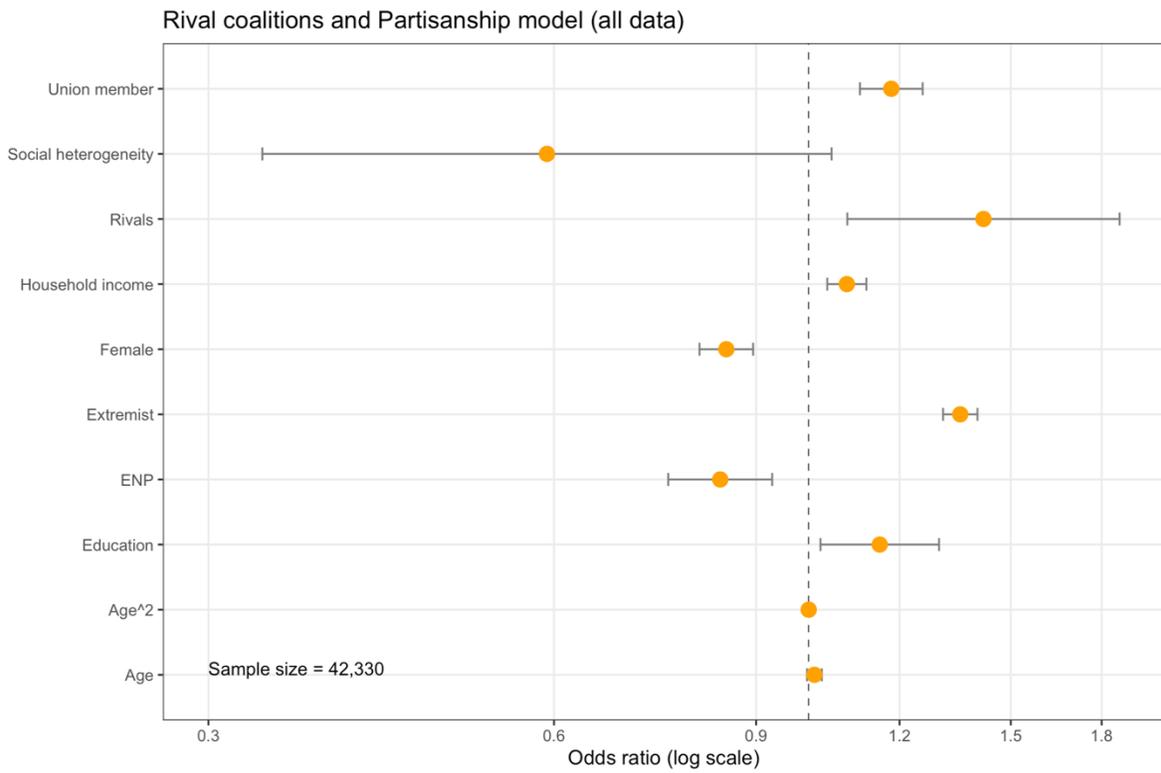
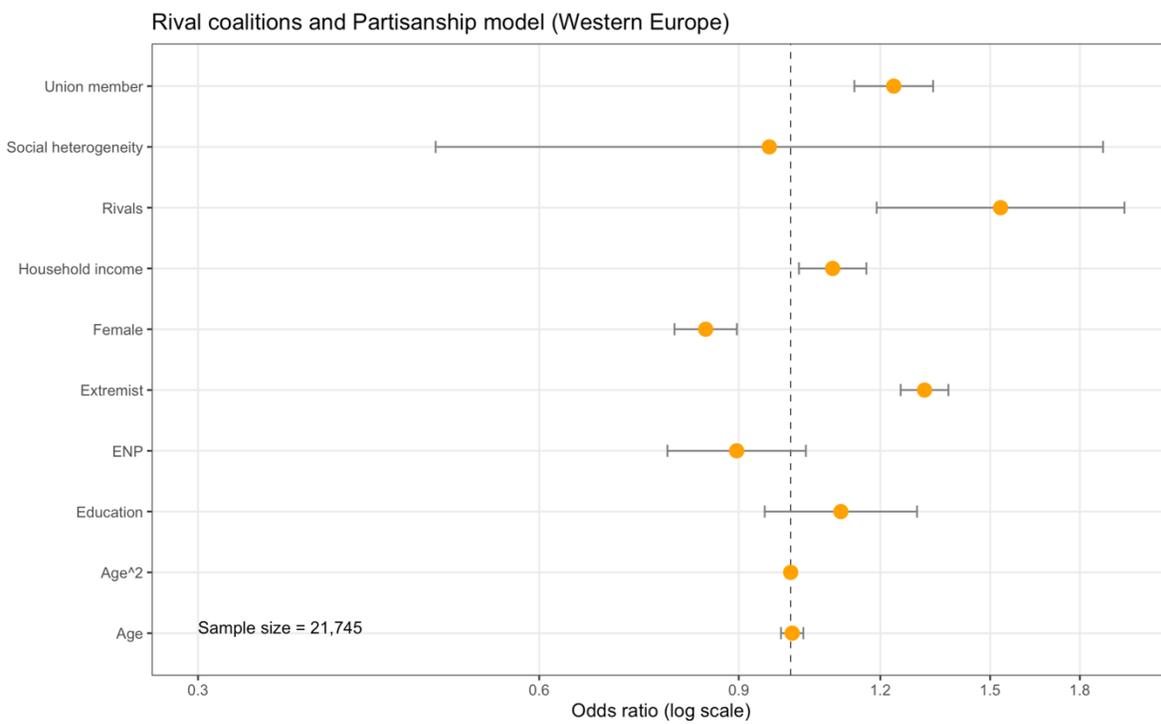


Figure 35. Odd ratios of partisanship (Western Europe only)



This datapoint runs counter to the raw descriptive statistics above. The direction of the effect appears to be caused by controlling for the effective number of legislative parties (ENP). These two measures are significantly correlated (implying that the greater the number of parties, the more likely a rival coalition is).

Interestingly, when we drop the effective number of parties from the model in the combined CSES CPDS sample, rival coalitions do not appear to reach conventional levels of statistical significance. However, if one only includes the set of Western European countries for which this project has data on, the odds of being a partisan under a harmonious setting are 1.6 times greater than under a rival setting. However, the standard error is larger than for other terms in the model and the model overall explains only 6% of variance.

This project did not start out with any hypothesis on a relationship between rival coalitions and effective numbers of parties, especially with regard to how they may interact to affect party attachment. It seems best to let future research delve into this finding further. For the moment, the data observed here seems to offer support for the alternative to Hypothesis 1; that homogenous cabinets are more prone to misperception and party affiliation drop-off, while cabinets composed of ideological rivals are more clearly distinct party brands onto which individuals can easily attach.

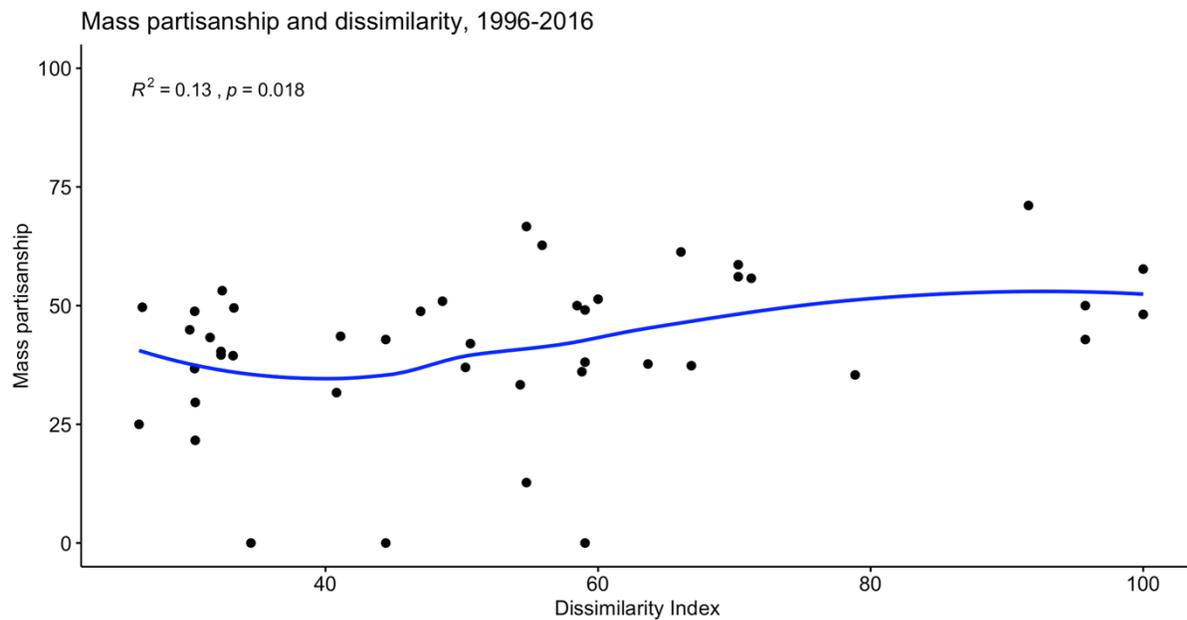
Coalition Congruence and Mass Partisanship

Dissimilarity

The second hypothesis regards the difference between national and regional government composition. One potential outcome is that as congruence in the system decreases, the probability of identifying with a party decreases too. As mentioned above, there are two measures of this phenomenon. The first I use here is the dissimilarity index, which shows on a scale from 0 to 100 the extent to which regional and national governments are similar (100 being most dissimilar).

The figure below plots the proportion of respondents who identify with a party against the dissimilarity score at each country-year. A spearman correlation shows a statistically surprising result, if there were no association between mass rates of partisanship and dissimilarity scores ($r= 0.36$, $r^2=0.13$ $p< 0.0177$, with 80% power to detect a “weak” effect size of 0.2 to .39). The figure below shows a *positive* correlation between dissimilarity scores and mass partisanship, inconsistent with expectations: rates of partisanship appear to be higher when governments are more dissimilar. Although country-level correlations seem to offer falsifying evidence for the originally stated hypothesis and support its alternative, this is very weak evidence.

Figure 36. Mass partisanship and dissimilarity index correlation



Looking at a correlation between whether a respondent identifies as a partisan or not, and the dissimilarity score of their country, shows a statistically surprising result ($r=0.0602$, $r^2= 0.13$, $p< 0.00001$). Of course, one should not draw a strong inference from such a simple bivariate correlation without controlling for more individual level confounders. Regressions enable greater sensitivity.

We do not see a significant relationship between this particular measure of the extent of congruence and individual level partisanship. Or rather, any effect must be smaller than the minimum size that can be reliably detected based on a sample of 25,725 and an alpha level of 0.05. Most other variables are statistically significant in line with the direction that the literature suggests.

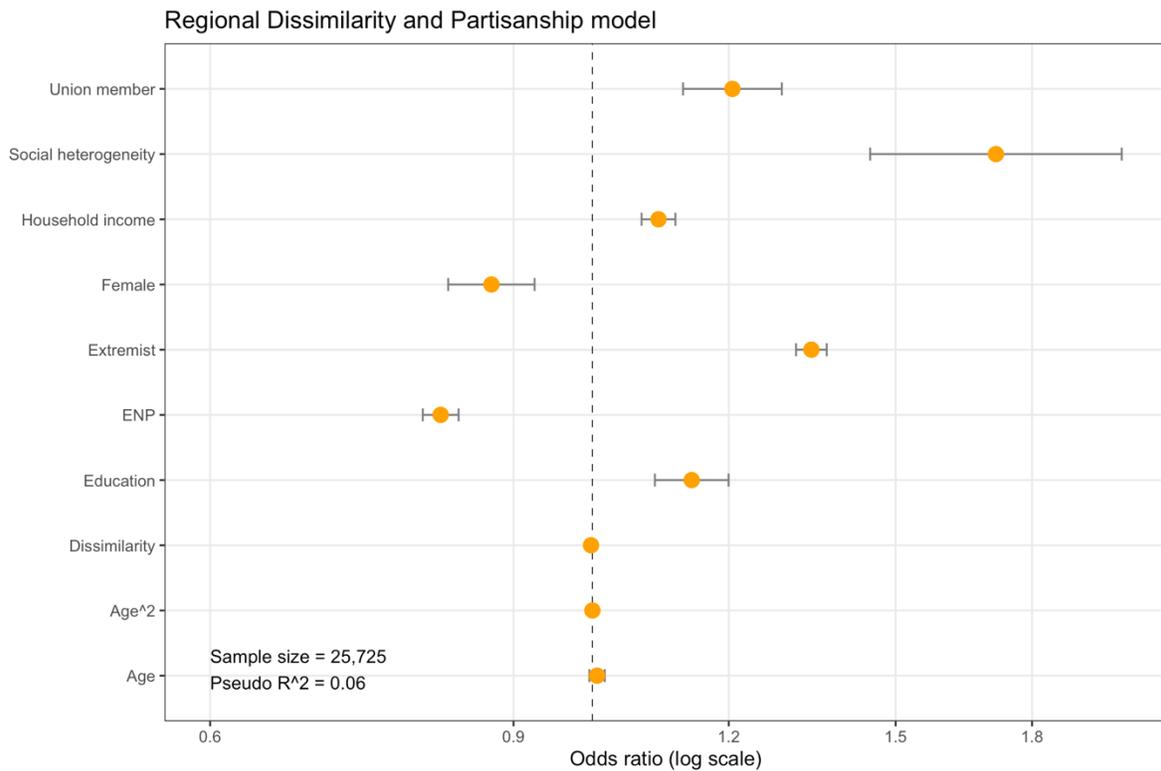
Table 24. Logistic regression of party identification and dissimilarity index

VARIABLES	Model 1	Model 2
Dissimilarity score	-0.00176 (0.00118)	0.00321 (0.00717)
Extremist	0.293*** (0.0105)	0.290*** (0.0264)
Age	0.00636 (0.00524)	0.00742 (0.00909)
Age^2	0.000139*** (5.20e-05)	0.000131 (8.85e-05)
Female	-0.135*** (0.0295)	-0.138*** (0.0319)
Education	0.133*** (0.0251)	0.149** (0.0610)
Union member	0.187*** (0.0337)	0.118** (0.0521)
Household income	0.0884*** (0.0115)	0.0909*** (0.0287)
Social heterogeneity	0.540*** (0.0858)	0.717** (0.357)
ENP	-0.203*** (0.0122)	-0.184*** (0.0612)
Constant	-1.029*** (0.152)	-1.451*** (0.479)
Random effect		0.186** (0.0914)
Observations	25,725	25,725
Pseudo R2	0.0620	
Log-Likelihood Full Model	-16866	-16936
BIC	33843	33993

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Figure 37. Odds ratios of partisanship and dissimilarity



Percent of regional congruence

Do we see the same results if instead of Schakel and Dandoy’s measure we use the alternative operationalisation developed in this research project, i.e., the percentage of regional governments in various congruent statuses?

The figures below plot the proportion of respondents in a country who identify with a party against the percent of regions congruent with or cross-cutting the national government at each country-year. These two statuses are the most interesting for our hypotheses. Clearly countries with more cross-cutting coalitions could signal more contradictory information and countries with more congruence signal less. However, high levels of complete incongruence will likely tell us more about partisanship’s relationship to electoral success in multi-level polities than coalition strategies. In

countries with high levels of incongruence, all voters see is that there is a national-regional divide, but not necessarily that party brands are distorted.

The scatterplot shows a non-linear path of a locally weighted smoothing line of fit between congruence and mass partisanship, and no apparent trend between cross-cutting and mass partisanship. However, a spearman correlation does not show a statistically surprising result that would give us confidence to act as if mass rates of partisanship and regional congruence shares are dependent (with 80% power to detect a “weak” effect size of 0.2). As above though, I wish to know if this is the case for partisanship at the individual level.

Figure 38. Mass partisanship and share of matching regional governments correlation

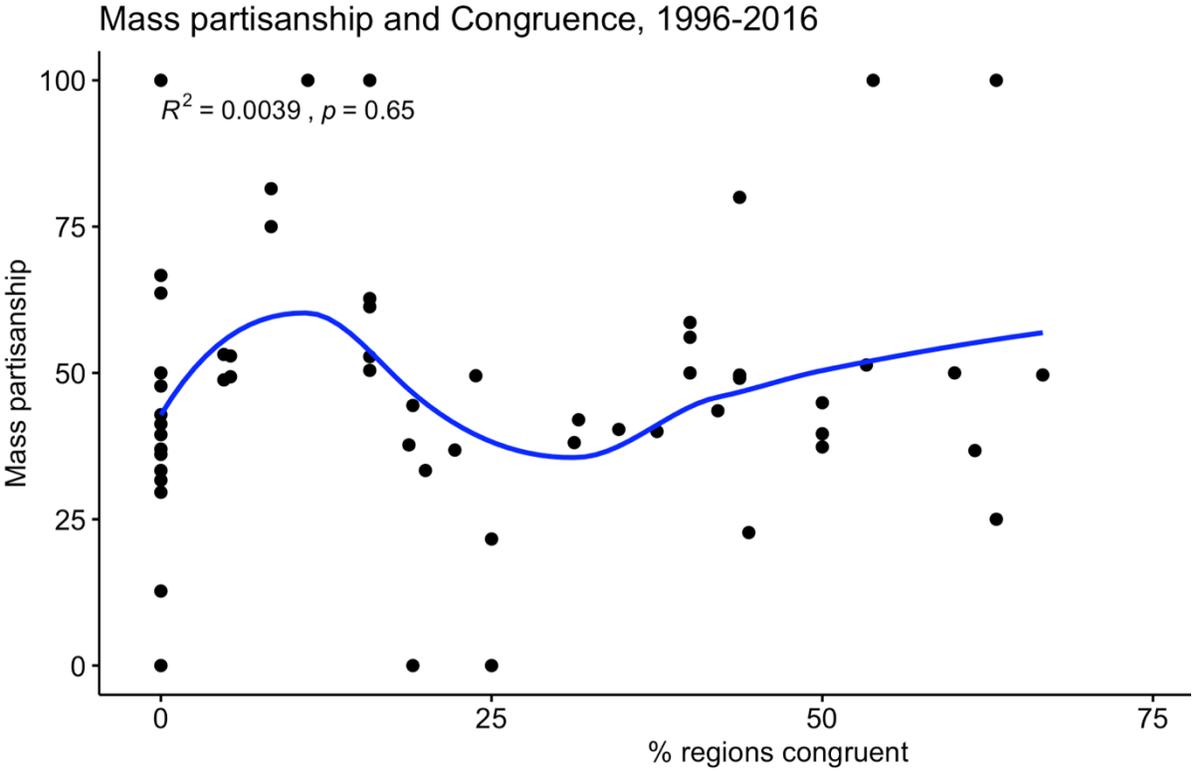
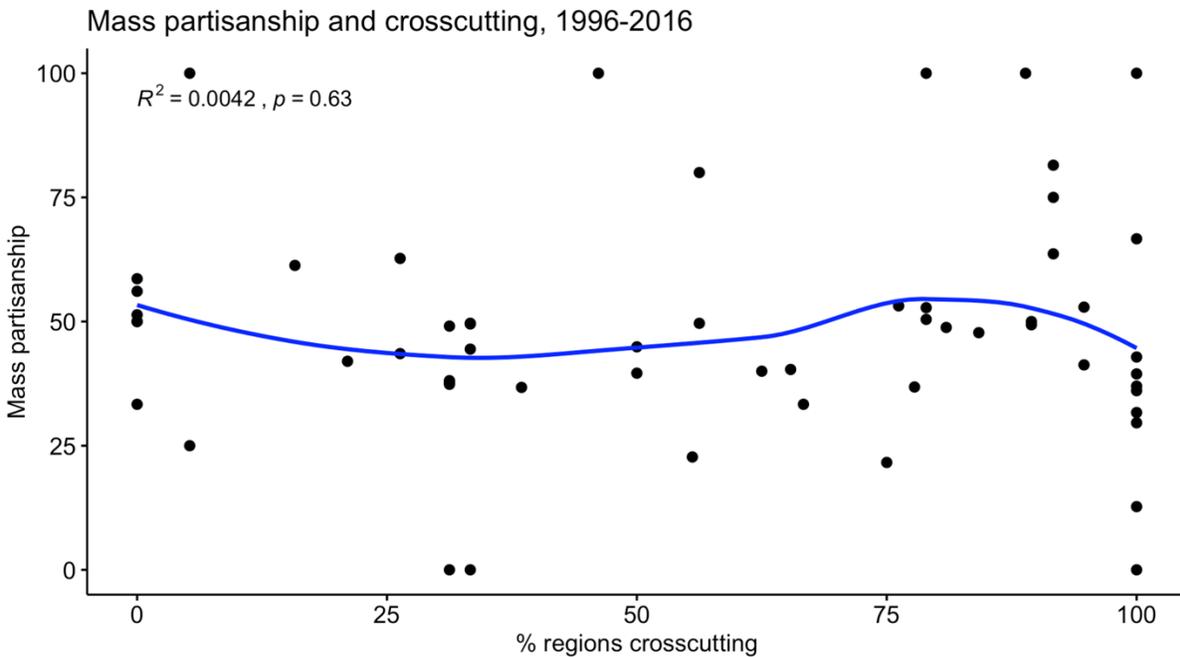


Figure 39. Mass partisanship and share of cross-cutting regional governments correlation



Looking at a correlation between whether a respondent identifies as a partisan or not, and the share of regions in states of congruence, we find statistically surprising results, however they represent very weak associations sizes (below $r=0.1$). It would seem odd then that a country's share of congruent regions could affect individual partisanship but not shift mass rates of partisanship in the aggregate. This is only weak evidence without controlling for confounders in a regression and given the large sample size it is likely a false positive.

Rerunning the models with this measure of congruence instead, the percent of congruent and cross-cutting regional governments is statistically significant at conventional thresholds in the logistic models using Rae's measure of legislative fractionalization (Model 1 and 2) but not when using Laakso and Taageper's effective number of parties (Model 3 and 4). The difference in log likelihoods between the models (see Tables in the

appendix) is small and insignificant, suggesting a random effects model is not necessary. Looking just at the model using legislative fractionalization for the moment, we see an increase in the probability of partisanship alongside the increase in the percent of congruent regional governments. The converse is implied: a smaller percent of congruent regional governments is associated with a lower likelihood of identifying as a partisan. This is not the same as saying an increase in incongruence is associated with lower partisanship as it would be more accurate to say *fully incongruent* and/or *cross-cutting* governments. However, we do also see a decrease in the probability of partisanship for a given increase in cross-cutting governments (model 2).

Table 25. Logistic Regressions of Party Identification and congruence

VARIABLES	Model 1	Model 2	Model 3	Model 4
% Congruent	0.00280*** (0.000679)		0.000813 (0.000710)	
% Cross-cutting		-0.00320*** (0.000577)		-0.000808 (0.000660)
Extreme	0.275*** (0.00990)	0.275*** (0.00990)	0.276*** (0.00992)	0.275*** (0.00991)
Age	-0.00191 (0.00496)	-0.00144 (0.00496)	-0.00131 (0.00497)	-0.00120 (0.00497)
Age ²	0.000215*** (5.01e-05)	0.000210*** (5.00e-05)	0.000210*** (5.01e-05)	0.000208*** (5.01e-05)
Female	-0.128*** (0.0270)	-0.129*** (0.0270)	-0.129*** (0.0271)	-0.129*** (0.0271)
Education	0.130*** (0.0231)	0.130*** (0.0230)	0.127*** (0.0227)	0.128*** (0.0227)
Union member	0.277*** (0.0294)	0.256*** (0.0293)	0.244*** (0.0293)	0.240*** (0.0291)
Household income	0.0620*** (0.0107)	0.0613*** (0.0107)	0.0615*** (0.0107)	0.0614*** (0.0107)
Social heterogeneity	-0.0796 (0.0772)	-0.260*** (0.0890)	0.117 (0.0743)	0.0686 (0.0943)
Legislative Fractionalization	-3.311*** (0.241)	-2.711*** (0.272)		
Effective Number of Parties			-0.224*** (0.0136)	-0.215*** (0.0167)
Constant	0.987*** (0.218)	0.831*** (0.221)	-0.535*** (0.132)	-0.494*** (0.131)
Observations	28,720	28,720	28,720	28,720
Pseudo R2	0.0521	0.0525	0.0543	0.0543
Log-Likelihood Full Model	-19319	-19311	-19275	-19275

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Odds ratios show the large effect of party system fractionalization and that union members are ~1.3 times more likely to identify with a party than non-members. The odds

ratio of congruence and cross-cutting is quite small, because it reflects a one-unit increase, which is just a 1% increase in regional governments.

Figure 40. Odds ratios of partisanship and congruent governments

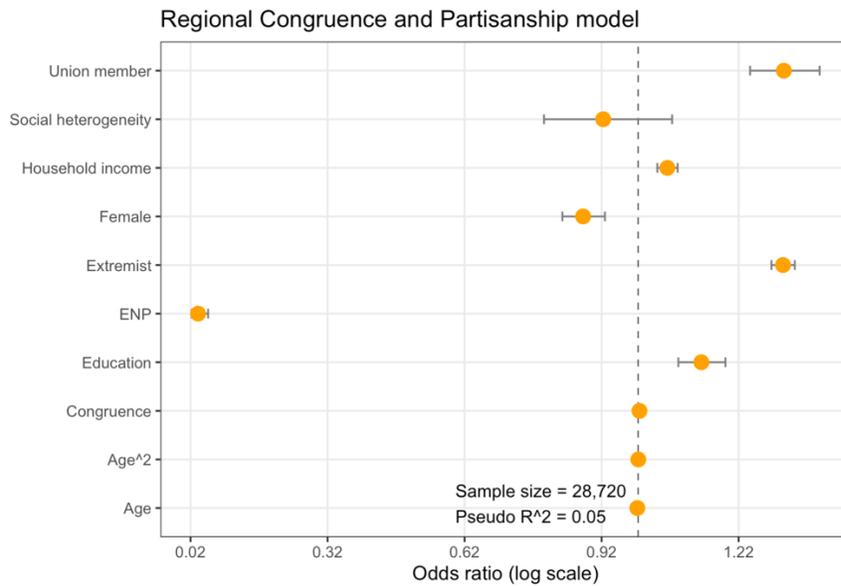
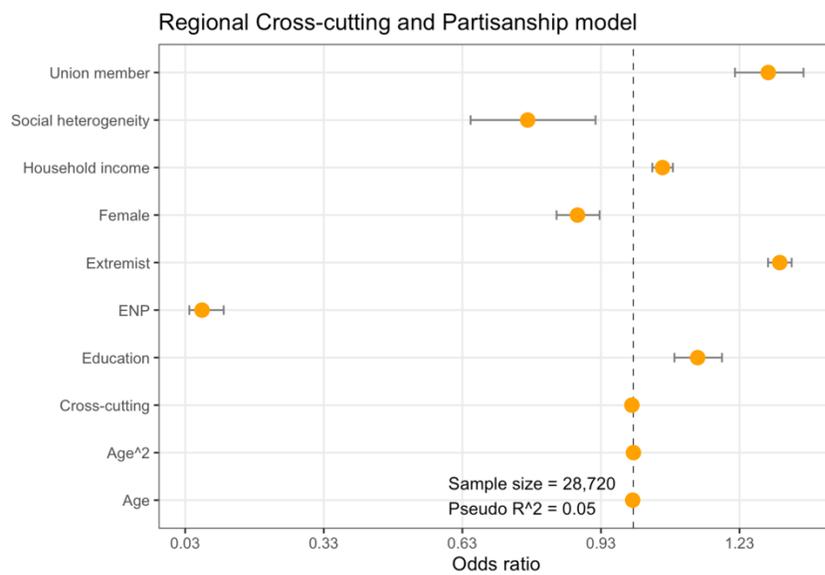


Figure 41. Odds ratios of partisanship and cross-cutting governments



Spanning the interquartile range of observed congruence (5% congruence to 44% congruence) increases an individual's probability of being partisan by 3 percentage points, as much as moving from the second lowest household income group to the second highest, moving from one education level to another, being a man rather than a woman, or as much as aging 50 years. This is less than being a union member or moving one unit on the left-right extreme scale. This represents a change in the predicted probability of identifying with a party from 43% to 46%. Moving from the extremes of 0% of congruent regional governments to 100% moves the average probability of being a partisan from 43% to 50%. While year on year there is not a lot of change in regional governments due to election cycles, the interquartile range of *changes* in congruence between regional election years spans a 17% decrease to a 9% increase, with a standard deviation of 34%.

The interquartile range of changes in cross-cutting between regional election years spans a 9% decrease to an 11% increase, with standard deviation of 33%. Moving across the interquartile range of observed cross-cutting (31% congruence to 89% cross-cutting regional governments) increases an individual's probability of being partisan by 5 percentage points, as much as moving 4 levels on the 5-level income scale, more than being a man rather than a woman or moving an education level or aging 50 years. This is less than being a union member or moving one unit on the left-right extreme scale. This represents a change in the predicted probability of identifying with a party from 47% to 42%. Both regression models (using legislative fractionalization) provide evidence in support of hypothesis 2. Using effective number of parties, given the sample size and an alpha level of 0.05 only observed associations larger than any found in the model could be reliably detected 80% of the time in the long run if they really existed, so we cannot reject the null hypothesis either.

Figure 42. Predicted probability of partisanship and congruent governments

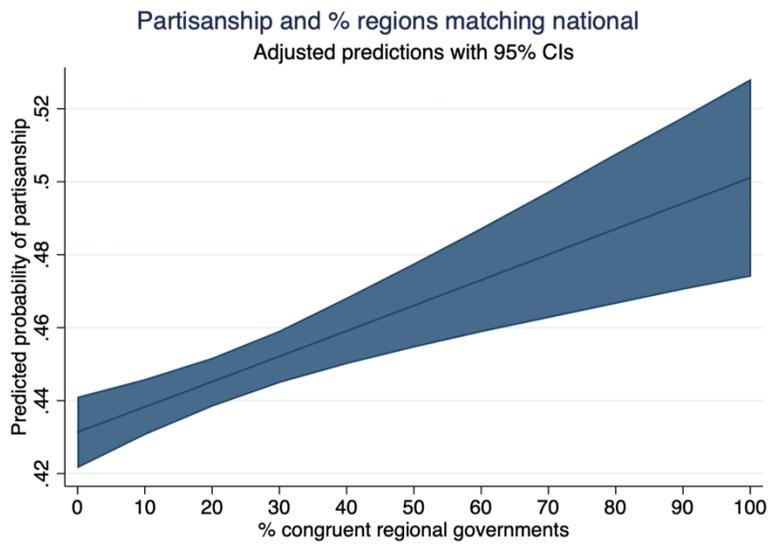
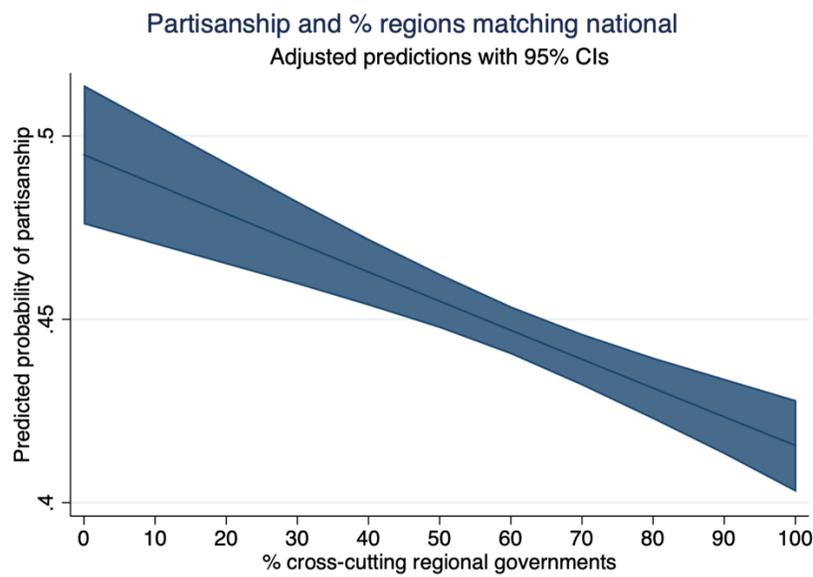


Figure 43. Predicted probability of partisanship and cross-cutting governments



Congruence and Rival Coalitions

Finally, I want to investigate the effect on party identification when both independent variables of interest are included in the model; ideological rivalry and congruence. Hypothesis 3 stated that the effect of congruence will be weaker if coalition partners are ideologically similar. Thus, this hypothesis would gain support from data that shows that when coalitions are composed of rivals, the degree of misperception, and knock-on effect on partisanship, will be weaker than when coalitions are ideologically homogeneous. On the other hand, the alternative hypothesis is that rival coalitions heighten the contradictory information and should thus have a stronger effect. The absence of any difference in effect would undermine either hypothesis and strengthen the hypothesis that subnational congruence and ideological composition are not related to party identification in any systematic way.

Congruence

Adding the ideological composition of the national government to the model produces some interesting results. A first point is that both congruence and rivalry reach conventional thresholds of statistical significance, which prompted the exploration of their interaction which too was significant (model 2 and 4). This suggests there are reasonable grounds to keep it in the model. We can also see that the amount of variance explained in the model increases with the interaction term, although not by much and while remaining quite small overall at around 5% in all models. Furthermore, we see this in models using either measure of party system fragmentation. Given that the effective

number of parties before was related to an insignificant effect in previous models, we shall mostly refer to that model going forward as a more conservative estimate.

All models suggest a positive effect of increasing shares of congruent regional governments and a positive effect of ideologically rival national governments on the probability of identifying with a party; the higher the percent of congruent regional governments, the higher the probability of identifying with a party; when a national government is composed of rivals, there is a higher probability of partisanship. Ideological extremism, union membership, household income, education level, and gender remain significant across all models. The quadratic transformation of age is significant also. Social heterogeneity is significant in Model 4 only and only at the 90% level. Both measures of party system fragmentation suggest a lower probability of identifying with a party as the number of parties increase.

Table 26. Regressions of Party Identification and congruence and convergence

VARIABLES	Model 1	Model 2	Model 3	Model 4
% Congruent	0.00232** (0.000957)	0.0150*** (0.00269)	0.00369*** (0.000919)	0.0180*** (0.00278)
Rival partner	0.167*** (0.0438)	0.355*** (0.0539)	0.138*** (0.0441)	0.344*** (0.0538)
Rival*Congruent		-0.0133*** (0.00261)		-0.0151*** (0.00275)
Extreme	0.269*** (0.0117)	0.269*** (0.0117)	0.269*** (0.0117)	0.269*** (0.0117)
Age	0.00260 (0.00606)	0.00214 (0.00607)	0.00246 (0.00605)	0.00195 (0.00606)
Age ²	0.000180*** (6.02e-05)	0.000183*** (6.03e-05)	0.000181*** (6.01e-05)	0.000184*** (6.02e-05)
Female	-0.159*** (0.0327)	-0.159*** (0.0327)	-0.159*** (0.0327)	-0.159*** (0.0327)
Education	0.124*** (0.0287)	0.127*** (0.0286)	0.120*** (0.0290)	0.119*** (0.0289)
Union member	0.266*** (0.0370)	0.266*** (0.0370)	0.283*** (0.0370)	0.277*** (0.0371)
Household income	0.0847*** (0.0128)	0.0842*** (0.0129)	0.0856*** (0.0128)	0.0855*** (0.0128)
Social heterogeneity	0.156 (0.0956)	-0.0772 (0.104)	0.0342 (0.0943)	-0.212** (0.101)
Effective Number of Parties	-0.151*** (0.0197)	-0.116*** (0.0214)		
Legislative Fractionalization			-1.871*** (0.343)	-1.043*** (0.391)
Constant	-1.248*** (0.169)	-1.500*** (0.176)	-0.480 (0.293)	-1.211*** (0.332)
Observations	20,736	20,736	20,736	20,736
Pseudo R2	0.0531	0.0541	0.0519	0.0532
Log-Likelihood Full Model	-14079	-14064	-14097	-14078

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Cross-cutting

We see a similar pattern when looking at cross-cutting regional governments. An interaction between cross-cutting and rivalry is significant (although only at the 90% level), and cross-cutting is significant and negative in every model. The larger the share of regional governments composed of both national government and other parties, the lower the likelihood of identifying with a party. However, ideological rivalry is only significant in models *without* an interaction term. Furthermore, while the effective number of parties is a significant measure for party system fragmentation, it is Rae's measure in this case which does not reach conventional thresholds of statistical

significance. The other predictors (controls) in the models behave in much the same way as above and as expected.

Table 27. Regressions of Party Identification and cross-cutting and convergence

VARIABLES	Model 1	Model 2	Model 3	Model 4
% Cross-cutting	-0.00352*** (0.000854)	-0.00516*** (0.00113)	-0.00498*** (0.000752)	-0.00677*** (0.00110)
Rival partner	0.167*** (0.0404)	0.0333 (0.0749)	0.143*** (0.0409)	-0.000299 (0.0797)
Rival*Cross-cutting		0.00245** (0.00102)		0.00253** (0.00107)
Extreme	0.269*** (0.0117)	0.269*** (0.0117)	0.269*** (0.0117)	0.269*** (0.0117)
Age	0.00306 (0.00605)	0.00273 (0.00606)	0.00318 (0.00605)	0.00285 (0.00605)
Age ²	0.000175*** (6.01e-05)	0.000178*** (6.02e-05)	0.000174*** (6.01e-05)	0.000176*** (6.01e-05)
Female	-0.158*** (0.0327)	-0.158*** (0.0327)	-0.158*** (0.0327)	-0.158*** (0.0327)
Education	0.134*** (0.0285)	0.131*** (0.0286)	0.135*** (0.0287)	0.130*** (0.0289)
Union member	0.255*** (0.0364)	0.255*** (0.0364)	0.259*** (0.0365)	0.257*** (0.0365)
Household income	0.0831*** (0.0128)	0.0835*** (0.0128)	0.0830*** (0.0128)	0.0836*** (0.0128)
Social heterogeneity	-0.126 (0.127)	-0.141 (0.127)	-0.316*** (0.116)	-0.337*** (0.116)
Effective Number of Parties	-0.0997*** (0.0249)	-0.0929*** (0.0252)		
Legislative Fractionalization			-0.806** (0.400)	-0.585 (0.423)
Constant	-1.163*** (0.165)	-1.084*** (0.168)	-0.850*** (0.301)	-0.895*** (0.303)
Observations	20,736	20,736	20,736	20,736
Pseudo R2	0.0536	0.0538	0.0531	0.0533
Log-Likelihood Full Model	-14072	-14069	-14080	-14076

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Odds ratios tell the same story. These show that for example, a member of a union is ~1.3 times more likely to identify with a party than a non-member. In the congruence model, an ideologically rivalrous national government is associated with an individual being ~1.5 times more likely to be partisan than under ideological harmony. We can see this is a relatively large effect compared to those of other variables highlighted in the literature.

However, as noted this effect is insignificant in the model of cross-cutting regional governments.

Figure 44. Odds ratios of partisanship and congruence-convergence interaction

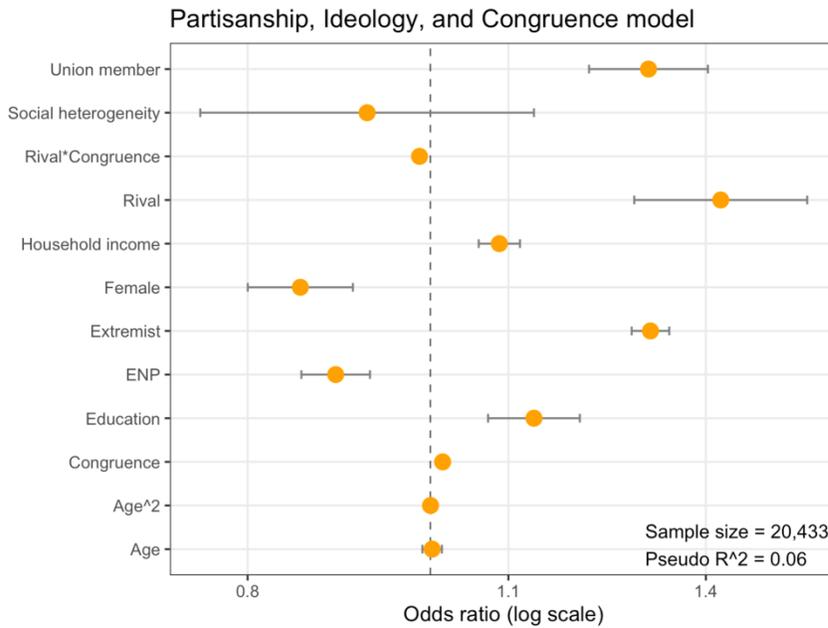
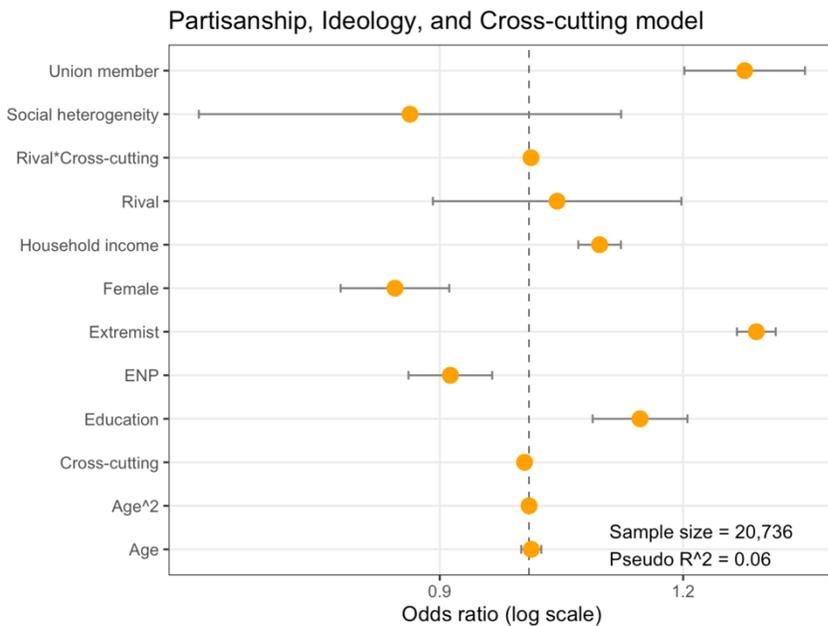


Figure 45. Odds ratios of partisanship and cross-cutting-convergence interaction



The odds ratios for congruence are not very useful here since they refer to a one-unit increase, which in this case is only a 1% increase in congruent regions. It makes more sense to look at the span of some representative values. The interaction effects are also more clearly understood visually.

The graph below shows the striking predicted probabilities generated from a model of an interaction between shares of congruent regional governments and national government ideological composition. We see that as the share of congruent regional governments increases so too does the probability of identifying with a party, but only when regional governments are congruent with an ideologically harmonious national government. When the national government is composed of a Left- and a Right-wing party, then the probability of identifying with a party is remarkably similar no matter that share of congruent regional governments. The latter are about 45% likely to be partisan, but among the former we see a 35-percentage point difference in the probability of identifying as a partisan between the high and low ends of congruence.

When a national government is composed of ideological rivals and the share of congruent regional governments is low, an individual is *more* likely to identify as a partisan than when there are harmonious partners. However, this reverses as the percent of congruent regional governments increases. The difference in the cross-cutting model is less stark, as we might expect based on the limited evidence of statistical significance for an interaction in that model. We see that an individual is less likely to identify as a partisan the greater the share of regional governments cut across the government opposition divide. When the national government is composed of rivals, party attachment is higher than when composed of allies when more than half of regions are cross-cutting.

Figure 46. Predicted probability of partisanship and congruent governments by convergence

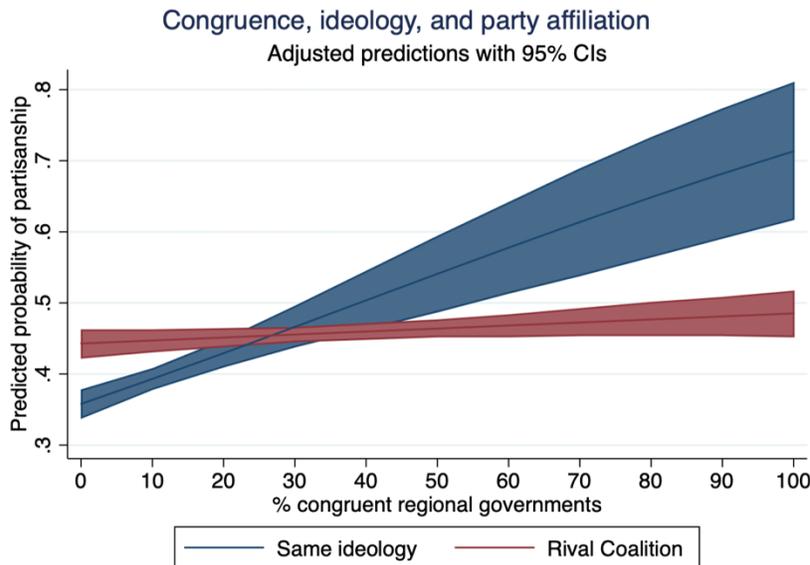
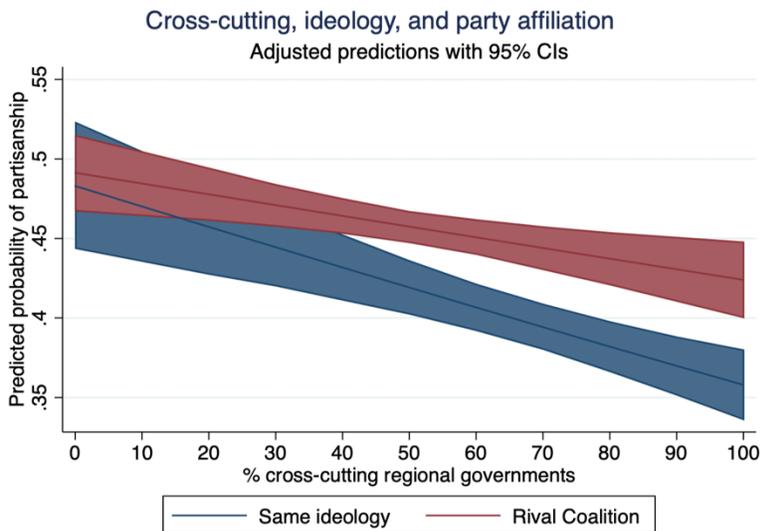


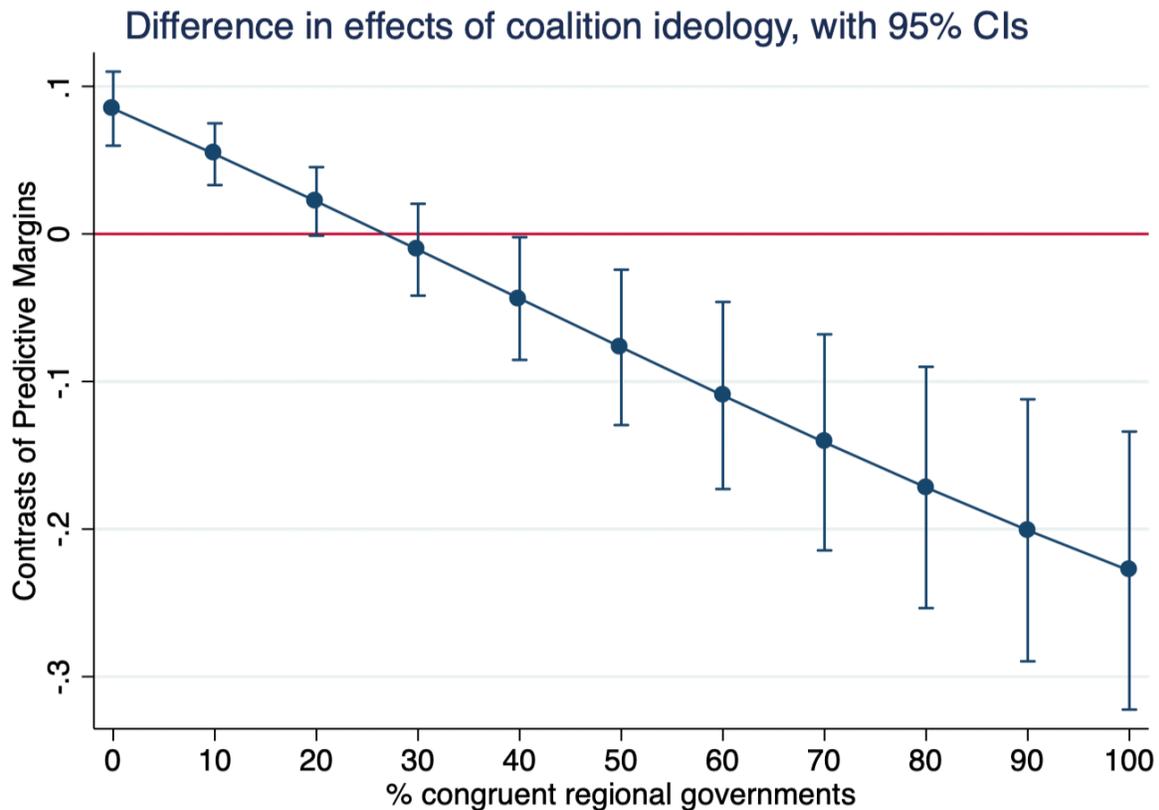
Figure 47. Predicted probability of partisanship and cross-cutting governments by convergence



Another way to visualize this is to look at the difference between the predicted probabilities of rival and harmonious governments across the range of congruence, as in the graph of contrasts of linear predictions below. We can see there is a 9-percentage point difference in party attachment under rivalry compared to harmony when no

governments are congruent, but this switches and increases such that the difference is 20% when more than 90% of regional governments are congruent.

Figure 48. Difference in effects on partisanship of congruent governments



Discussion

In situations where there is a very homogenous cabinet in which all coalition parties share similar policy views, individuals may be suffering from a high degree of misperception; this would lead to a decrease in party attachment, and then this is compounded by signals from the subnational level that the same parties have *different* partners in most regional governments. It appears that when parties are experimenting with many different regional coalition partners, they will remain more distinct if they are partnering with

ideological rivals in the national government. As a consequence, fewer individuals drop off, or more people identify with a party. However, the effect of misperception caused by a homogeneous cabinet appears to be ameliorated when most regional governments also are homogeneous. It could be that when, say a government dominated by left-wing parties controls governments across the country it becomes easier to imagine a Right-Left dichotomy which overlaps with the government-opposition dichotomy and allows for easy interpretation of party brands, and thus an easy object upon which to attach party affiliation. This then offers mixed evidence for Hypothesis 1 and Hypothesis 3.

How substantive are these effects? Given the multi-faceted nature in which the electorate comes to make an assessment of a party attachment, finding a new or large effect is a daunting and unlikely achievement. We take two factors to analyse their relationship (congruence and party attachment), taking them out of an extremely complex and effervescent set of other factors. To identify a relationship in this—considering how many other hypotheses affect the change—and controlling for all possible confounders would be a hard test. And here we do not have all the factors that could be at play. Yet here we are able to see the effect of one phenomenon, the lack of congruence. To pick up any evidence of an effect, especially when the broader European trend in congruence is not as dramatic as one might have expected, is significant.

Decreasing party attachment in modern Western democracies is broadly seen as a stable trend (Schmitt 2014), therefore I did not expect that the additional variables of incongruence or rival coalitions would influence a respondent's probability of identifying with a party by more than a few percentage points. Very few of the effects of factors included in the models above alter the probability of party attachment by more than a few percentage points or by more than 1.5 times, unless one moves across the interquartile range of values. However, while effects might be modest, they are not

trivial. Even in the contexts of modern western democracies, where the policy positions and images of parties are relatively stable, parties do undergo incremental changes, and congruence should affect aggregate partisanship at the margin. I do not challenge the predictions of modernisation theory but seek to explain non-linear fluctuations.

As incongruence increases or as congruence decreases—that is, as the composition of regional governments differs from the national government—the public become uncertain of where the parties in the system stand on issues. As I mentioned above, it may be the case that some coalition behaviours move some individuals away from a party and others towards it, but overall, it seems that the effect of greater incongruence is a weakening of party identification.

Secondly, there are mixed findings regarding rival coalitions. Initially I found that party attachment is not weakened overall by ideological rivals forming coalitions, and in fact may even be strengthened by this. This seems to support Spoon and Klüver's contention that homogenous cabinets suffer from a higher degree of misperception than ideologically heterogeneous ones. The increase in an individual's probability of being partisan due to moving from a situation of ideological harmony to rivalry is the same as aging 5 years or having secondary rather than only primary education, and similar to the effect of gender.

However, more complex models including interactions with rival coalitions and incongruence suggest the opposite can be the case when regional governments tend to match the national government. The latter finding fits with the predictions of the branding model theory, but further investigation will be needed to drill down into these findings. It may be the case that individuals are not put off by cross-cutting coalitions, those formed between ideological rivals, unless there is also a high degree of

incongruence. Individuals can still distinguish party brands even when they form rival coalitions, but when the parties join with an increasing number of different coalition partners at the same time, indicated by higher incongruence, then the clarity is reduced.

Conclusion

This exploratory empirical paper has sought to shed light on the connection between coalition partnering and party attachment. Building on Lupu's branding model of partisanship I tested hypotheses from experimental and single case studies on a large cross-national observational dataset. I found evidence that incongruence correlates with mass partisanship, however not always in ways expected by the theories nor in ways that are intuitive. As my second hypothesis predicted, it seems that those individuals who see greater brand dilution across levels of government become less partisan as a consequence. The relationship between rival coalition partners and mass partisanship is not as clear, however, as I have found evidence for both a positive and negative association. In contrast to earlier research on partisanship in Europe which eschewed party behaviour in favour of party rhetoric, this study shows there are good theoretical and empirical reasons to expect a relationship exists between party actions and party attachment.

The answers are not cut and dried, as so often in the social sciences. This study leaves open a number of questions and lines of inquiry. In this paper I have looked at mass partisanship, but it would be enlightening to look at party-specific attachment and see whether the decline in mass partisanship is driven only by losses in identification with the parties in national government or if it goes beyond to affect all parties. While the data used in this paper covered many years it may also be useful to conduct time-series

analyses to see if periods of increasing or decreasing incongruence align with periods of increasing or decreasing partisanship. The data relied upon for statistical analysis in this study are cross-sectional and suffer from many well-known problems. For example, any causal relationship between coalition congruence and mass partisanship is difficult to identify from only the statistically significant correlations evident above. Survey experiments(Lupu 2013) manipulating the information about parties' coalition strategies and subsequent party attachment could shed light on this, as could panel data.

The apparent trend of dealignment is a cause for concern among many political scientists, party officials, and civil society. While much of the story of dealignment is already well researched, this paper suggests that party convergence and congruence may help to explain this phenomenon. Differences in rates of cross-cutting regional governments and ideologically harmonious national governments may help to explain the variation between countries amidst this greater trend of decreasing party attachment over time.

Appendix

Table 28. Multi-level Regressions of Party Identification and congruence

VARIABLES	Model 1.	Model 2	Model 3	Model 4
% Congruent	0.00163 (0.00431)		-0.000315 (0.00444)	
% Cross-cutting		-0.00161 (0.00460)		0.000802 (0.00554)
Extreme	0.273*** (0.0239)	0.273*** (0.0244)	0.274*** (0.0241)	0.273*** (0.0244)
Age	-0.00182 (0.00922)	-0.00159 (0.00897)	-0.00134 (0.00922)	-0.00141 (0.00910)
Age ²	0.000213* *	0.000211**	0.000209**	0.000210**
	(8.92e-05)	(8.60e-05)	(8.99e-05)	(8.82e-05)
Female	-0.131*** (0.0308)	-0.130*** (0.0307)	-0.131*** (0.0308)	-0.130*** (0.0307)
Education	0.130** (0.0577)	0.131** (0.0566)	0.126** (0.0577)	0.125** (0.0562)
Union member	0.237*** (0.0396)	0.231*** (0.0413)	0.214*** (0.0412)	0.214*** (0.0379)
Household income	0.0625** (0.0302)	0.0620** (0.0291)	0.0629** (0.0299)	0.0634** (0.0288)
Social heterogeneity	-0.0175 (0.429)	-0.104 (0.614)	0.139 (0.387)	0.203 (0.678)
Legislative Fractionalization	-3.639** (1.423)	-3.323* (1.775)		
Effective Number of Parties			-0.236*** (0.0806)	-0.248** (0.116)
State-Year	0.151 (0.0947)	0.135 (0.122)	0.0773 (0.0578)	0.0845 (0.0875)
Constant	1.256 (1.226)	1.170 (1.265)	-0.452 (0.613)	-0.466 (0.570)
Observations	28,720	28,720	28,720	28,720
Number of groups	25	25	25	25
Log-Likelihood Full Model	-19433	-19432	-19403	-19402

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

More Choices that Matter: Subnational Coalition Congruence and Parties' Ideological Reputation

Abstract

This paper analyzes whether the formation of cross-cutting governments influences public perceptions of where a party stands on the traditional left-right spectrum in addition to attachment. Forming a coalition offers voters with a simple heuristic about the policy compromises a party is willing to make, and divergent coalition strategies between national and regional governments further affect these perceptions. It was hypothesized that when a coalition is composed of the same parties at both levels of government, it simply confirms voters' prior positions about the party, but when composed of rivals sends contradictory information that shifts voters' image of the party. I use multiple different analyses of German and Austrian coalition patterns and voters' perceived left-right positions of and attachment to major parties. I find mixed evidence for the hypothesis, suggesting that how the composition of the regional government mirrors the national government can affect attachment and left-right policy images of the party, but not strictly according to a branding model of partisanship.

Introduction

The historical record and numerous surveys show that the gap between the left and right positions of major political parties has been narrowing, which may be one of the major contributors to the general trend of partisan dealignment. The branding model of partisanship suggests that the electorate map parties onto a conceptual left-right spectrum which can be considered to constitute the "brand" of the party. Earlier in this

project, we have presented some evidence that coalition composition is associated with mass rates of partisanship, but this is built on a causal mechanism that assumes the public are updating their image of where the party stands on the left-right spectrum.

The recent literature on perceptions of parties has shown that voters consider the real-world actions of parties as sources of information in building this heuristic device of a “brand”, and that parties are undertaking actions which risk compromising the distinctiveness of their unique brands. A key action that is visible to all and intuitively provides information on the ideological position of a party is the coalitions it forms in government (Glasgow, Golder, and Golder 2012; Martin and Stevenson 2001). The existence of multiple sites of coalition formation in multi-level systems provides voters with more and more sources of such information. However, it is not at all clear that they take such information into account and whether the effect of that information is clarification or confusion.

In this paper we explore whether there is a relationship between the placement of parties on the left-right spectrum by the electorate and the congruence of their regional government with the national government. It builds on previous work upending the common narrative that party behaviours are not important determinants of party perceptions by showing that coalition arrangements affect public perceptions of parties. Here we attempt to replicate these findings from the national level at the subnational level by taking into account the multi-level character of modern European democracies. Hypothesised relationships between regional governments that cross-cut the national government-opposition divide, and perceptions of a party’s brand are tested using two novel methods. I make use of the timing of election surveys before and after the announcement of coalition agreements as a sort of quasi-natural experiment. I also employ panel data to explore long term changes at the individual level. Both methods

utilize data from Austria and Germany and focus primarily on the 2009-2013 period. Germany and Austria are typical example of federations in Europe and have a history of parties adopting multiple coalition strategies at the regional level that are not replicated at the national level.

The previous paper in this project found evidence that there is an association between attachment to a party and the congruence status of a region, especially if a coalition is composed of ideological rivals. A major tenet of the theory outlined in this paper is what happens to partisans who see their party in the regional government opt for a coalition partner different from the national one. The information is about government composition is the same for everyone, what changes is how much it affects an individual as a partisan if they value congruence between levels. Therefore, it is an important condition on partisanship itself. Without doing so the mechanism could be different and explain these otherwise puzzling findings, i.e., that non-partisans perceive this as a signal of convergence, and this might increase confidence in the system and thus increase party support in general.

It was not possible in the previous paper to include a variable which denoted whether an individual survey respondent identified specifically with the party in government or not. The data certainly exists within the CSES and EVD, but given the large number of parties, regions, and years and the unfortunately inconsistent coding of party names between survey years, the data coding exercise would be enormous and better suited to a separate research endeavour. In lieu of this aggregate cross-national analysis, I conducted a small-N study looking at the partisan support specifically of the parties engaging in various coalition congruence patterns in specific countries.

I identified a number of time periods in Austria and Germany that would be ideal sites of analysis: where there was a sustained national level coalition across multiple election surveys, but multiple regional elections would have been held in the interim and changed regional congruence status (CDU-FDP 1982-1998 and SPD-Green 1998-2005 in Germany, OVP-SPO 2007-2017 in Austria). However, there were many problems in the data available. The cross-section data available from GESIS omits certain key regions from the surveys in the 1990s and appears to under sample SPD partisans in 1998 when the SPD won enough seats to govern, the GESIS German panel data covers periods when the national government changed every election (2002-2013), and Austrian panel data goes back only to 2013. Therefore, a somewhat sub-optimal analysis is conducted on the available data to provide some first empirical tests.

Coalitions & perceptions

There is a natural seam running between the ideologies of coalition members, the policies such governments implement, and the outcomes of such policies spanning fiscal policy, electoral accountability, or government duration. Against this background, it is perhaps surprising that only recently has research begun to acknowledge that the composition of coalition governments would provide a signal to the public about the positions of political parties.

A recent wave of research has found the European model of measuring party images by looking at rhetoric (electoral campaigns and party manifestos) is less useful in understanding how public perceptions of parties change than the Atlantic model of looking at the concrete actions of parties (legislative voting and policies) (Adams, Ezrow, and Somer-Topcu 2011; Fernandez-Vazquez 2014; Lupu 2011). One particular insight has

been that the formation of coalition governments is an action that provides the public with information on the policy positions of parties. Parties that are members of coalitions are perceived by the public to be closer, ideologically, to one another than to parties not included in the coalition, irrespective of what party manifestos would tell us (Fortunato and Stevenson 2013). This also extends to specific issues such as perceived party positions on European integration (Adams, Ezrow, and Wlezien 2016). However, the dynamic appears to be asymmetrical as the image of the more dominant party in the coalition (usually the one holding the office of the head of the executive) is mapped onto the junior coalition member(s) but not the other way around (Fortunato 2015).

Alongside this literature, Lupu's branding model of partisanship suggests that when the information voters receive about a party's position contradicts prior beliefs, it will dilute a party's brand and distort its perceived policy stance. By contrast, information that reinforces priors strengthens the perceived policy stance, and the brand. Martin and Stevenson (Martin and Stevenson 2001) demonstrate that parties prefer forming coalitions with ideologically similar partners, all else being equal, and it appears voters keep this default in mind when observing coalition formation. Falcó-Gimeno and Fernandez-Vazquez (2015) provide more evidence that joining a coalition government has an effect on public perceptions when a more ideologically similar coalition than the one which was adopted was available but not chosen. However, Spoon and Klüver found that coalitions composed of parties with similar policy positions result in the public perceiving the positions of these parties in ways that are at odds with the policy manifestos of those parties (2017). In contrast, when parties form coalitions with diverse policy positions, the public's perceived placement of these parties is much closer to the self-stated positions of the parties in their manifestos. A right-wing party supporter may find it more difficult to distinguish their party when it is allied with a similar right-wing party, but easier when it takes the more unusual step of partnering with a left-wing party. Earlier in this project

we have identified that when coalitions are composed of ideological rivals, the rates of party identification overall are higher than when composed of ideological allies. This finding suggests a relationship between coalitions and party perception.

This paper expands the scope of the arguments developed in the literature by looking at the subnational level. I analyze whether the formation of coalition governments changes the placement of parties on the left-right spectrum and, crucially, whether this change differs according to the congruence between the national and subnational level. This paper also serves as a conceptual replication. I model this study very closely on one that focuses only on the national level and ignores the issue of incongruence (Falcó-Gimeno and Fernandez-Vazquez 2015). Thus, this paper provides a novel contribution to the literature in two ways: First, by providing more evidence of a coalition-policy perception linkage; and second, by fleshing out the causal mechanism behind the branding model of partisanship when applied to multi-level coalitions.

Theoretical framework

I will again rely primarily on Lupu's branding model of partisanship which I discussed in detail in the previous paper in this project (2011). Typically, the most salient issue dimension is Left-Right and so one can imagine that where on this spectrum someone perceives a party to lie constitutes its brand. This left-right axis method of information gathering and organization by voters was popularized by Downs and continues to be a dominant paradigm in discussions of political parties in public forums.

A strong brand is one that voters feel relatively certain about, while a weak one is perceived as ambiguous. Voters collect information about party brands by observing party *behaviour*, much more so than rhetoric. Convergence among parties leads to the

inability of voters to meaningfully distinguish their brands. One action that can signal convergence is coalition making; this is because coalition agreements are a formal statement of a policy compromise that is expected to cover a wide swathe of the government program, and that ideally will be stable for the duration of the term in office until the next election. It signals that party positions are closer together; closer than they were as distinct non-partners and compared to other non-partners. The aspect of the model that I seize upon for my addition of congruence is the notion that an action that is typically at odds with the perception of the party will dilute the effect of the party cue, since contradictory cues send more ambiguous signals and generate uncertainty.

While much of the recent literature has focused on national-level governments, it may be reasonable to assume that these effects are also present at the subnational level. In fact, having coalition partners that are different at the regional and national level might be another aspect of coalition behaviour that signals coherence with priors, or not. While forming a coalition at one level in isolation may send a signal about the position and policy compromise of a party, it stands to reason that forming an additional *alternative* coalition at another level sends a contradictory signal about that party's position. On the other hand, forming a coalition that simply conforms to the compromise already made at another level of government will send a less confusing signal, and may even strengthen the direction and nature of the original policy compromise. It may be that less than fully congruent coalition-making generates uncertainty about a party position, and for those observing this it may weaken the party brand. It could also be the case though that when a party forms a coalition it causes the individual to move their perceived position of the party along the ideological spectrum. In this case, it may not be uncertainty but rather a new clarity that the party is not as close to the individual's position as once thought.

The hypothesis posed in this paper draws on the extended branding model of partisanship detailed in the earlier chapters of this project. It posits that each voter's response to a national coalition partnership will be influenced by the prior coalition and its congruence with the regional government. The same national coalition decision should have different effects for two individuals under different regional government compositions. For a voter who views the new national coalition as matching with the pre-existing regional government, the behaviour of the party aligns with the individual's image of the party brand. Thus, we would not expect such a voter to drastically change their opinion of where the party stands. On the other hand, for an individual who sees the party coalition partner cutting against the grain between the national and regional level, their image of the party may become uncertain and distorted. We may thus expect such a person to shift their image of the party. We may already have evidence that the perception of a party's left-right image changes when it forms new or alternative coalitions, however this shift in opinion should occur across the board on average for all voters, irrespective of regional government composition. This is the null hypothesis being tested in this paper, with the alternative hypothesis being that the regional composition of a government does affect this shift in the image of the party. Dalton and McAllister (2015) report that the median shift in average perceptions across two consecutive elections is only 0.29 and so we begin with the hard challenge of detecting what must be a small effect, if any such effect exists.

Regional level variation: Austria

Austria is a classic federalised European state, having begun elections for its nine regional governments in 1945. Each of these regional governments is derived from a directly elected regional parliament. These regional elections have not coincided with national elections since 1950 and rarely occur at the same time as other regional elections. These

regional governments have executive authority in numerous policy areas from health to labour law and education. This is a political arena where we might expect the electorate to pay some attention to actions of parties, if individuals pay attention to the regional level at all. Power at the national level has oscillated between the three major parties SPO, OVP, and FPÖ. Of the 120 national governments over 1959 to 2018 51% were SPO OVP coalitions. 64% of governments the SPO was a part of were in coalition with the OVP and 71% of governments the OVP were a part of were in coalition with the SPO. Therefore, this partnership clearly represents the most common national alignment and also the most common partnership for each of the respective parties. 69% of regional governments over the last 70 years have been cross-cutting. 51% of OVP regional coalitions have been with the SPO and a further 35% with the SPO and FPÖ together. 71% of OVP regional governments and 70% of SPO regional coalitions have been cross-cutting, usually because of the addition of a third party not represented in the national government.

From January 2007 until December 2017 the Austrian national government was composed of the SPO and the OVP. During 2007-2013 six regional governments changed their congruence status, mostly moving from congruent to cross-cutting (and one back to congruent). The other regions remained cross-cutting or congruent throughout. For the OVP, 2 regions remained congruent throughout, 3 were cross-cutting, 3 moved from congruent to cross-cutting. In one region the OVP never held power. For the SPO, 1 region was congruent, 3 were cross-cutting, 2 moved from congruent to cross-cutting, 2 from congruent to incongruent, 1 was incongruent throughout. None of these changes occurred at the same time as the September 2008 or September 2013 national elections held during this period. This then provides an opportunity to see how partisans of the national governing parties react when their party at the regional level moves from the presumably preferable option of vertical congruence to a cross-cutting coalition.

The data I rely on comes from combing a number of surveys conducted in Austria during this period: AUTNES Post Post-Election survey (6 May 2009 and 2 July 2009), AUTNES pre- and post-Panel Study 2013 (November 2012 and July 2013) and the AUTNES Online Panel Study (16 August and 7 October 2013). Therefore, we can compare a group of partisans in 2009 to a group in 2013, who will have experienced a change in congruence status in the meantime due to regional elections but a consistent national government composition.

In 2009, overall partisanship was 66.4%, and was 51.3% by 2013. The percentage of respondents in the survey reporting to be close to the OVP changed from 35.7% to 29% and for the SPO from 36.9% to 35.8%. In 2009 regions that would remain congruent throughout were 29.6% attached to the OVP, while regions that were congruent but would cross-cut by 2013 were 35.2% and regions that were cross-cutting throughout were 40.7%. By 2013, the stable congruent regions were 36.6% attached to the OVP, those that became cross-cutting were 31.2%, and the stable cross-cutting regions were 33.9%. This at first glance suggests that remaining congruent increased attachment to the OVP, while in regions that became cross-cutting and those that remained cross-cutting there were declines (from higher baselines). It may also be worth noting that in two of the consistently cross-cutting regions, the cross-cutting partners changed.

So, I can compare OVP partisanship in a congruent group (Burgenland, Voralberg) to the regions that began congruent and shifted to cross-cutting (Salzburg, Steiermark, Tirol). I can also compare the situation in consistently cross-cutting regions (Niederosterreich, Oberosterreich, and Kärnten). Wien offers a case of OVP partisans observing the consistency at the national level from a place of regional incongruence. I can also look at the strength of attachment to the OVP, although the surveys above only offer a 3-level measure of strength (very, somewhat, and not very attached). In the cases where the OVP

moves from congruent to cross-cutting, it partnered with TS and the Greens in one region, the Greens alone in another, and adds the FPO to the SPO partnership in another. The theory would then expect OVP supporters to see some brand dilution due to the novel partnerships with these parties that cut across the national government-opposition divide. One might expect this to manifest in a few ways: a change in the strength of attachment to the OVP, a change in the share of OVP partisans, and a change in the left-right placement of the OVP by partisans. A change in left-right might be largest among those who also changed their attachment to the OVP.

Conducting a difference-in-difference analysis using only the regions that remained congruent with the OVP or moved from congruent to cross-cutting and interacting this “treatment” with the time shift from 2009 to 2012 shows mixed to little evidence of a significant change in perceptions of the OVP (see models in the table below). The probability of identifying as close to the OVP seems unrelated to the time or congruence of the regional government. However, attachment to any party does appear to be affected by the OVP changing congruence (under the “partisanship” column in the table below). This may be related to the discontinuity between respondents’ answers to *“Do you usually think of yourself as close to any particular party?”* and *“Which party do you feel closest to?”*. Approximately 20% of those who report which party they feel closest to also report not being particularly close to any party. Limiting the analysis to only those who are close to a party and close to the OVP excludes 21% (364) of respondents who said the OVP was the party they were closest to but also that they were not close to any party. In that case of comparing the change in attachment to OVP between those “real” OVP partisans and non-partisans the DID estimator is significant, suggesting an effect. Similarly, collapsing the data to the regional unit the percent of “real” OVP partisans appears to be significantly associated with the treatment. This appears to be due to a 20-percentage point drop in “real” OVP partisans in the cross-cutting treatment group between 2009

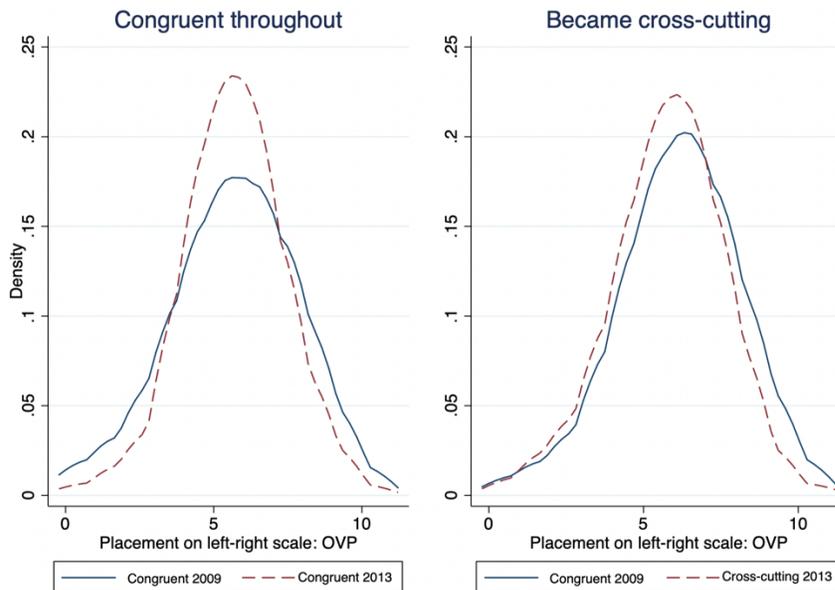
and 2013 but no substantial or significant change in the share of “real” OVP partisans in the consistently congruent group.

Table 29. Difference-in-Differences OVP 2009-2013

VARIABLES	Close to OVP.	Left-Right.	Strength	Partisanship	Real OVP.	OVP %.
OVP treatment	0.256 (0.262)	0.0643 (0.186)	-0.0803 (0.105)	0.542*** (0.207)	0.789*** (0.295)	0.0883** (0.0320)
Time (2009-2013)	0.317 (0.269)	0.0641 (0.186)	-0.140 (0.113)	-0.163 (0.204)	0.0458 (0.298)	0.0193 (0.0376)
DID OVP	-0.481 (0.293)	-0.110 (0.202)	0.0246 (0.126)	-0.574** (0.228)	-1.015*** (0.326)	-0.115** (0.0434)
Constant	-0.865*** (0.243)	5.669*** (0.172)	2.378*** (0.0960)	0.189 (0.186)	-1.080*** (0.273)	0.157*** (0.0291)
Observations	1,976	3,073	755	3,172	2,009	10
R-squared	0.0015	0.000	0.009	0.013	0.0225	0.734

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Figure 49. Left-Right placement of OVP 2009-2013



A next step is to look to panel data to see whether the change in party attachment is due specifically to individuals who previously identified with a party no longer feeling attached to the party or not being attached to any party at all. I rely on the AUTNES Rolling Cross-Section Panel study (Wave 1: 5 August to 27 September 2013, and Wave 3: 14 August – 20 October 2015).

From before the national elections in 2013 to the election in 2015 there were 3 changes in congruence status at the regional level. 2 moved from congruent to cross-cutting and one from cross-cutting to congruent. For the OVP one changed from congruent to incongruent, one from cross-cutting to congruent, one from congruent to cross-cutting, and the others either remained cross-cutting or incongruent (no OVP representation). For the SPO, one region moved from congruent to cross-cutting, two from cross-cutting to congruent, two from congruent to incongruent, three remained cross-cutting and one remained incongruent. Therefore, we lack data in this period of regions that were congruent throughout. Instead, we have regions that were consistently cross-cutting and some that became congruent so presumably the opposite trend should appear: attachment to a party increases when it returns to congruence (assuming it reduced during the period of cross-cutting).

Of those individuals who were “real” OVP partisans in 2013, 56% were still OVP partisans in 2015, 40% were non-partisans and the rest were now closest to the SPO or FPO. On the other hand, 37% of those who were real OVP supporters in 2015 had been non-partisans in 2013, and 60% had been OVP supporters. Unfortunately, cutting the sample by party-specific regional congruence change means that the relevant samples are at most 95 and as few as 12 per group, and even 0 in some cells, meaning drawing inferences about the general population would be unreliable. Overall, we can see though that 59%

of individuals in consistently cross-cutting regions identified with the same party (or continued to not identify with any party) throughout, 66% in regions that moved from congruent to cross-cutting, and 62% in the one region that moved from cross-cutting to congruence. Only 2% changed party, 17% became attached to a party, 20% became detached, 28% stuck with the same party, and 32% remained unattached. There does not appear to be an omnibus significant association between overall congruence change and the partisan change of individuals in this panel survey, based on the sample of 1,126 (chi-squared Pearson $\chi^2(8) = 7.4259$ Pr = 0.491). The 2015 wave of the panel did not ask respondents about their left-right perceptions of the party.

National level variation: Germany as a case study

The next section will focus on Germany and specifically the 2009 federal election. Germany is a classic federation in Europe with a long history of subnational government authority in comparison to other Western European countries covered in this project which have only decentralized power to the regions in recent decades. The upper chamber of the national government is constituted relative to the composition of regional governments, and so there is an incentive to create congruent governments to avoid deadlock. Eleven of Germany's sixteen regions have held elections since 1945, with the other 5 from East Germany joining in 1990 after reunification. The regional governments these elections fill have strong legislative powers over policies covering education, law enforcement, government, and culture—in addition to being represented in the upper chamber of the national parliament. Therefore, if the public are to take subnational coalitions into account it seems it must occur in such a polity where generations of voters are used to such a system where regional governments are invested with authority. The failure to find any evidence of an association between coalition congruence and perceived

party positions in this more favourable environment would be a strong reason against further exploratory research into this area. It would further highlight the need to reassess the drivers behind the association between congruence and party attachment discussed in previous papers.

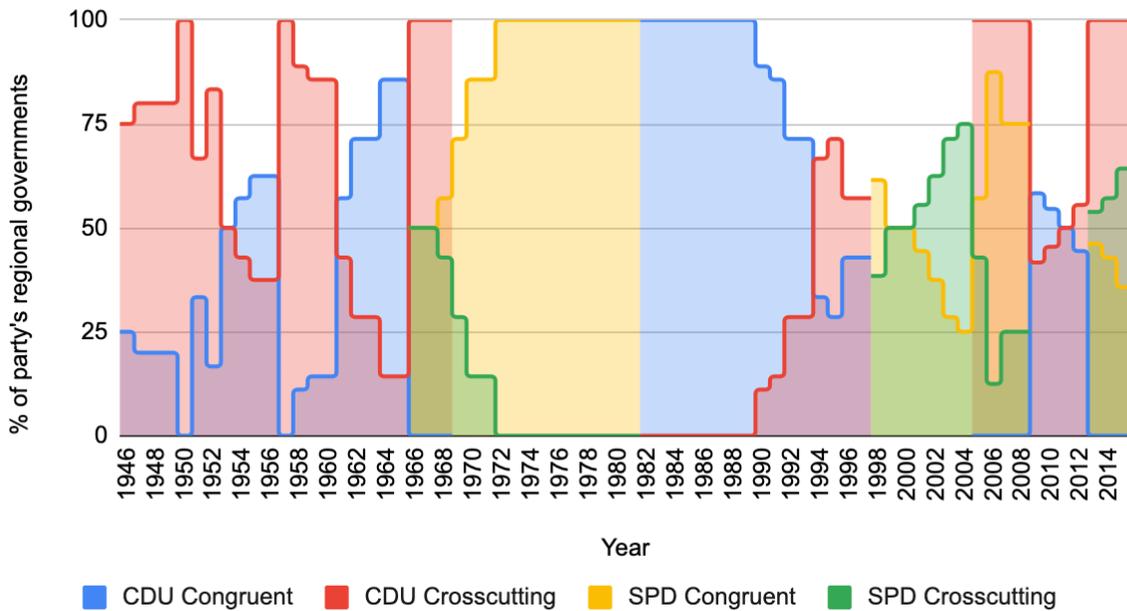
An illustrative case in Germany was presented in the introduction to this research project: that of rather stable coalition patterns at the national level but a high degree of coalition experimentation at the regional level, even when it cut across the government-opposition divide. The major German political parties, the CDU-CSU alliance and the SPD have been willing to assume office at the regional level even when it means forming a coalition different from that at the national level. The CDU has often led large coalitions at the national level and only had one of those partners represented at the regional level or has held a single-party government at the national level but a coalition at regional levels. Regional elections are not co-ordinated with national or other regional elections and so there rarely is a change in regional government composition in tandem with a national government change.

The figure below illustrates the share of regional governments held by a party that were either congruent with or cross-cutting the national government. This shows only the regional governments that a party participated in, and thus not the share of all regional governments that a party could potentially have participated in. We can see (in red) that the CDU has frequently opted to govern with opposition parties in more than half of the regional governments it participates in. The SPD finds itself in this position less often (in green) but began to increase the number of regional governments it held alongside national opposition parties in the early 2000s. We can see the period of extremely low cross-cutting in the 1970s and 1980s where first there was an increasing share of SPD governments completely congruent with the national government (in yellow), followed

by a reversal in national electoral fortunes that saw the CDU take power and a swathe of CDU regional governments become congruent (in blue). There was no cross-cutting during this period, which is to say the remaining governments were fully incongruent with whichever national government held power. The last decade has seen an increasing share of cross-cutting governments for both CDU and SPD-led regional governments. Again, this data does not show all the regional governments that the CDU or SPD *could* have joined but chose not to. However, the frequency of cross-cutting coalitions suggests that an aversion to partnering with the opposition is unlikely to be a factor. Instead, it is more likely that fully incongruent governments are due to a party not having enough seats to be a viable government member. In this study we focus only on a period around the 2009 federal election. Attempts to use longer timeframes or a wider set of countries were hampered by gaps in the major European surveys (CSES and EVD) and the problem presented by cutting a sample too thinly when dividing it into regional groupings. I would have preferred to compare how public perceptions change when there is a change in regional government and not in national government, however election studies tend to only be run in national election years and so we are forced to only observe changes in congruence due to changes in national government.

Figure 50. CDU and SPD coalition congruence 1946-2015

CDU and SPD coalition congruence 1946-2015



The timing of survey responses as a natural experiment in Germany 2009

The first method used is to make use of a natural quasi-experiment. Election surveys are often conducted both before and after an election and the order in which respondents are contacted is random. Putting a survey out into the field can take many weeks, and when done during an election may mean that a new government comes into office or is announced while the survey is underway. This novel and often unpredictable event creates an artificial treatment by bifurcating survey respondents into those who answered before and those who answered after the government was announced. This feature allows us to treat knowledge of the formation of a national government as a treatment applied randomly to survey respondents. Where survey respondents choose to place a party on the left-right spectrum when asked by the interviewer can be compared both between those who were surveyed before and after the election and between those who live in regions with regional governments matching the national government or not.

While the timing of the survey allows us to group respondents into pre- and post-coalition announcement, there is no reason to believe the timing of the interview and response rates are targeted at individuals according to their perceptions of parties. Unlike measures in the aggregate and panel data where the temporal distance between the pre and post can make up years, here it is a matter of weeks, or even days in some cases. Thus, we have good reason to believe that any change in party placement is due to the coalition announcement itself.

Data

The data used here is from the GESIS study 2009 in Germany. This is a cross-sectional survey made up of a pre-election study in early 2009, starting on August 12th, and a post-election one in late 2009, which was completed on the November 29th. These are periods when there was a general election at the federal level on September 27th and a change in government from a CDU-SPD coalition to a CDU-FDP coalition, announced on October 24th. The outcome of primary interest is survey respondent perceptions of party positions following the announcement of the new coalition. For the reasons mentioned above, the perception we are most interested in for our theory is the left-right placement of these parties and the corresponding survey question. In Schleswig-Holstein and Brandenburg state election was held on the same day as the national election. Schleswig-Holstein maintained the same CDU-SPD coalition. Brandenburg moved from a CDU-SPD to an SPD-Linke coalition (congruent to incongruent), but the change was only confirmed on November 6th, after the national coalition agreement had already been made. There are 53 respondents from Brandenburg after the new regional coalition was agreed, of which

27 provided data on party placement. I omit these respondents which is 33% of the post national coalition announcement Brandenburg sample.

Using this data allows me to investigate some of the hypotheses that stem from the theoretical framework outlined above. We can first observe whether the overall placement of these parties changes due to election coalitions as has been suggested by national level theories. However, more interesting for my purposes is what happens at the regional level. We assume, based on this theory, that voters updated their views of the parties *ex ante* when the first coalition formed—the public had some view about the CDU and SPD before they formed the CDU-SPD coalition in 2005 which was then updated—and that this new coalition signals new information and a prompt to update again. Some voters find themselves pre-coalition announcement in regions congruent with the national government and others not.

The question is then post-election whether those formerly under congruence (a CDU-SPD regional government) update their views more strongly or in a different direction than those for whom the new coalition is keeping in line with the regional government they already had (a CDU-FDP). For example, we might expect those living under regional CDU-FDP governance to update their views less strongly after October 24th because they perceive the new coalition as the most ideologically consistent choice, while for those under regional CDU-SPD governance we may expect a larger update as they now face contradictory signals about the CDU's new position. For those in fully incongruent situations (no national government parties in regional government) the change in partners for the CDU from SPD to FDP may send even more contradictory information, or they may not be concerned since it does not affect the national-regional dynamic for them.

As discussed in earlier pieces in this project, the directionality to expect is unclear. It seemed equally plausible that the CDU could be perceived as returning to its “correct” right-wing stance after an awkward partnership with the social democrats, or it could be that its right-wing credentials now look weaker in comparison to its new conservative partner. Spoon and Klüver’s (2017) work on homogenous versus heterogenous cabinets would suggest that the former makes the CDU’s position easier to distinguish, presumably meaning less like the left-wing SPD.

Unexpected Event during Survey Design robustness checks

Muñoz et al. (2020) provide a detailed guide for ensuring the robustness of what they call the “Unexpected Event during Survey Design” (UESD). They list strategies in Table 1 of their paper but also note these “should be read as a series of best practices to be followed whenever possible, and not as a checklist for each and every UESD study. Often they will not be relevant or possible to conduct.”(2020, 199) In what follows I will discuss the necessary checks conducted from this list that were relevant to the study at hand.

The first step was a substantive examination of the treatment event, the coalition announcement, to ensure it meets the criteria of an unexpected event and can be used as an exogenous assignment to treatment and control groups. It is entirely possible that the coalition announcement came amid media and public speculation about the election results and likely coalition formation outcomes. All these reactions and counter-reactions, rather than the unexpected event per se, might drive the public’s response. Although the CDU had been governing with the SPD since 2005, the leader of the CDU had a stated goal to win a majority for the CDU and its traditional coalition partner the FDP. The SPD

leader aimed to form a government with the strongest party (but not Die Linke). The FDP leader had ruled out an SPD-FDP-Green coalition. While the media characterized the campaign as “boring”, reflected in low voter turnout (Spiegel 2009), 46% of GESIS survey respondents said the election outcome was important. 80% of respondents’ perceptions of coalitions signals were that a CDU-FDP coalition was likely but 63% also thought a CDU-SPD coalition was likely. The majority (61%) in fact expected a CDU-SPD government. However, these questions were overwhelming not responded to at all. We can also see that some foreign media outlets were already writing as if a CDU-FDP coalition was already decided the day after the election (Connolly 2009), so as a check I will also treat the election day itself as the cutoff instead of the official coalition announcement. There is some evidence weakening the unexpectedness then of the final outcome. Muñoz et al. (2020) suggest that in some cases, like elections, we can see this as imprecise treatment, where any effect is due to both the announcement and any speculations or reactions. If the outcome was completely expected, then we should not expect any significant difference before and after the treatment event.

The “bandwidth” of the sample is another possible issue. The timing of the interview serves as the equivalent to a “forcing variable” in a Regression Discontinuity Design here. Narrower timings around the announcement may reduce the N and statistical power, and reactions to the announcement may take days to translate into effects. On the other hand, narrower bandwidths reduce the impact of possible confounders. Given that the coalition announcement came somewhat late in the sample period, and that we must divide the data into thin regional slices, it does not seem advisable to narrow the bandwidth further.

There is little evidence of the problem of compound treatments, whereby some simultaneous event has an equal or larger confounding impact on the outcome of interest. As in most UESD studies, the treatment condition is likely one of the most salient issues occurring at the time. There do not seem to be any other large events that could be expected to affect the left-right perceptions of the parties.

Another aspect to consider is the geographical patterning of the survey fieldwork. If all the interviews carried out after the announcement were in cross-cutting regions, and cross-cutting regions were only surveyed after the announcement this will create an ignorability issue. Such issues are rare in rolling cross-sectional designed surveys such as the data relied on in this thesis project. Thus, we can usually treat the temporal partition of the sample by the coalition announcement to be as good as random. I do find some regional differences in the data. For example, 70% of the respondents in Saarland and Brandenburg are in the post-announcement sample, while 70% of the respondents in Saxony and Lower Saxony are in the pre-announcement sample. While a chi-squared test of the association between region and coalition announcement is significant (Pearson $\chi^2(15) = 197.7597$ Pr = 0.000), this is an omnibus test that neither tells us the relationships driving the association nor the magnitude. Together these regions make up 22% of the sample. It's unclear if this is substantial enough to violate a major assumption of UESD. Looking at the election date instead, Bremen and Saarland are disproportionately sampled after election day but make up 5% of the sample.

We must also consider the other possible sociodemographic covariates that might have been partitioned non-uniformly between pre- and post- announcement samples. Relevant factors for party attachment plausibly map onto ideological placement (age, gender). There appears to be no gender difference pre- and post-election day (non-significant chi-square test of association). There is a significant association between

gender and announcement date (Pearson $\chi^2(1) = 4.5322$ Pr = 0.033) but it appears that this is owing to the majority of both gender groups being in the pre-announcement sample rather than different proportions of males and females being in the post-announcement sample. There is no significant association between age groups and either cutoff point.

As the effects of the event are already assumed to be restricted to a specific region or regions, depending on their congruence, this serves as the falsification test suggested by Muñoz et al. (2020). Regions incongruent throughout the survey period are in essence unaffected by the change in congruence caused by the national level coalition change as they do not have an additional reference point regarding the governing parties' multi-level coalition strategy.

Muñoz et al. (2020) suggest studying the share of don't know and refuse to answer responses. In this project, there is a theoretical reason to incorporate such responses into the outcome of interest. As discussed in the previous paper, one effect of incongruent implied by the branding model of partisanship, is a detachment not just an adjustment. Therefore, we might indeed expect to see changes in the share of people uncertain of the policy positions of parties. However, it's unclear in the aggregate whether multi-directional effects in different regions will simply cancel out.

Results

Here I examine the perceived left-right reputation and partisan attachment of the three major parties (CDU, SPD, FDP) before and after the 2009 national coalition which shifted some regions from congruent to cross-cutting or incongruent and others vice versa, while some remained in the same congruence status throughout. I aim to discern whether there are differences in the magnitude and direction of these changes between congruent,

cross-cutting and incongruent regions. Before the election, 0% of regional governments were completely incongruent with the CDU-SPD national government, i.e., all governments were led by either the CDU or SPD. 56% (9) were congruent with the national government (5 Länder had CDU-SPD, 4 had one of these parties but no others), while 44% (7) regional governments contained both members of the national government and opposition (such as a CDU-FDP or an SPD-Green government). After the announcement of a national coalition on October 24th, 25% (4) of Länder now found themselves fully incongruent (i.e., did not have the CDU nor the FDP in their governments and in fact had the SPD involved). 44% (7) were fully congruent (had CDU-FDP governments), and 31% (5) contained government and opposition parties. One might expect that those in regions that were formerly congruent would update their view of the major parties when they become a cross-cutting region relative to the new national government. For example, those living under a CDU-SPD regional government may shift their view of how Left or Right the CDU is when they see it now formed a coalition with the FDP. As discussed in earlier pieces in this project, the directionality to expect is unclear. It seemed equally plausible that the CDU could be perceived as returning to its “correct” right wing stance after an awkward partnership with the social democrats, or it could be that its right-wing credentials now look weaker in comparison to its new conservative partner. In the analyses below I include both descriptive statistics and also some significance testing, namely Welch t-tests and where possible differences-in-differences tests.

A simple chi-square test of association between identifying with any party and the coalition announcement does not find evidence for a statistically significant relationship (Pearson $\chi^2(1) = 1.3509$ Pr = 0.245) between the share of partisans before and after (67% versus 65%), but there is a significant association between the share of partisans and the date of the election (Pearson $\chi^2(1) = 7.2432$ Pr = 0.007) with 68% of the sample

partisan before and 64% after. Equally, there is not a significant association between coalition announcement and the share identifying with each party (Pearson $\chi^2(6) = 7.3689$ Pr = 0.288) but there is with election date (Pearson $\chi^2(6) = 12.7326$ Pr = 0.047). This is only an omnibus test, so it is unclear what is driving the association, but a look at the descriptive statistics suggests there is a slight decline in party attachment with the SPD.

Looking at regional variation I can construct a differences-in-differences design. There were 2 regions that were congruent throughout, 3 regions that moved from congruent to cross-cutting, 5 regions that moved from cross-cutting to congruent, 2 regions that remained cross-cutting, and 4 regions that moved from congruent to incongruent. My primary interest is the comparison between the consistent congruent and the congruent to cross-cutting regions, where cross-cutting is the “treatment”. Collapsing the data to the region level and using the percent of respondents who reported having an attachment to any party or not as the outcome variable, the “treatment” of cross-cutting is significant and suggests less partisanship than the “control” of continued congruence, however the differences-in-differences estimator is not statistically significant. In terms of an effect which, as best we can tell, is small, but we don't have a lot of information about it. It might be positive, it might be negative. It isn't too far from zero. But that's all we can say. The R square value of 0.05 is rather small. It means that, despite variability in the outcome, very little of that variability is related to treatment vs control group status or the passage of time from the pre- to post-intervention era. The output of the predicted values of percentage of partisans in both groups at each time shows the cross-cutting regions have 52% rather than 59% after the announcement, however this is not a statistically significant difference given the small sample size and thus limited power to reliably detect even small effects if they exist.

Table 30. Difference-in-Differences partisanship in Germany 2009, regional-level

VARIABLES	Model 1.
DID estimator	-0.0658 (0.0561)
Binary treatment	-0.145** (0.0415)
Time	-0.0786*** (0.00670)
Constant	0.754*** (0.00622)
Observations	10
R-squared	0.870
Number of regions	

Robust standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Looking at the individual level, I can see whether attachment to any party is affected by the change to a cross-cutting situation. A check of the baseline balance in covariates with the Stata user-written command “diff” (which estimates multiple t-tests) shows that the key covariates were reasonably balanced at the baseline. To estimate the average treatment effect using DID method, I create a regression model with an interaction of congruence and time. The average treatment effect suggests a negative change in partisanship of 15% though only the treatment variable is statistically significant.

Table 31. Difference-in-Differences partisanship in Germany 2009, individual-level

VARIABLES	Model 1.
Time	-0.396 (0.283)
Treatment	-0.713*** (0.177)
DID	-0.156 (0.331)
Constant	1.127*** (0.151)
Observations	991
R-squared	
Number of regions	

Robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

CDU

Given that the CDU is in the major role, being part of both coalitions, it makes sense to look specifically at those who identify with the CDU (or CSU). There does not appear to be any statistically significant association between either coalition announcement or election day and the share of respondents identifying with the CDU nor the strength of attachment to the CDU. Given this lack of associations and the only significant test being just below the conventional threshold of 0.05 one should be suspect about any true effect.

What do CDU partisans think when their regional government switches between congruent and cross-cutting and vice versa? 6 regions moved from cross-cutting to congruent, 3 moved from congruent to cross-cutting. Relying on data from the one region that remained congruent as a reference case creates a small and unbalanced sample. Instead, I can only compare attachment to the CDU before and after the election between the two groups where congruence changed and so a difference-in-difference approach would be inappropriate. There do not appear to be any significant chi-square associations between election day or coalition announcement and CDU attachment, when I restrict the analysis to CDU-SPD, CDU-FDP, and CDU only regions respectively. There does appear to be a significant relationship (spearman correlation $p < 0.03$) between the strength of attachment to the CDU and election day in CDU-SPD regions (congruent to cross-cutting). A Welch t-test suggests the average strength of attachment is very slightly higher (less than half a point) after the region became cross-cutting. However, there is no supportive evidence that the strength of CDU attachment changed in CDU-FDP or CDU only regions. Looking also at the share of respondents who reported being close to the CDU (a measure of party attachment) there is no significant change except in non-CDU regions where the share of respondents close to the CDU drops from 30.6% to 17.6% after the coalition announcement (chi square test of association $Pr = 0.005^{***}$).

We can see in the table below, indicating the mean Left-Right placement, that, overall, the placement of the CDU actually shifted *Left*, but not significantly, across the country after the announcement of the coalition with the liberal FDP. Without any evidence of statistical significance however we cannot confidently assert that there was no difference in the placement of the CDU between the pre and post announcement groups. How does this *non-change* differ, if at all, according to the composition of the regional government relative to the national government?

Table 32. Mean Left-Right Placement of CDU 2009 Election

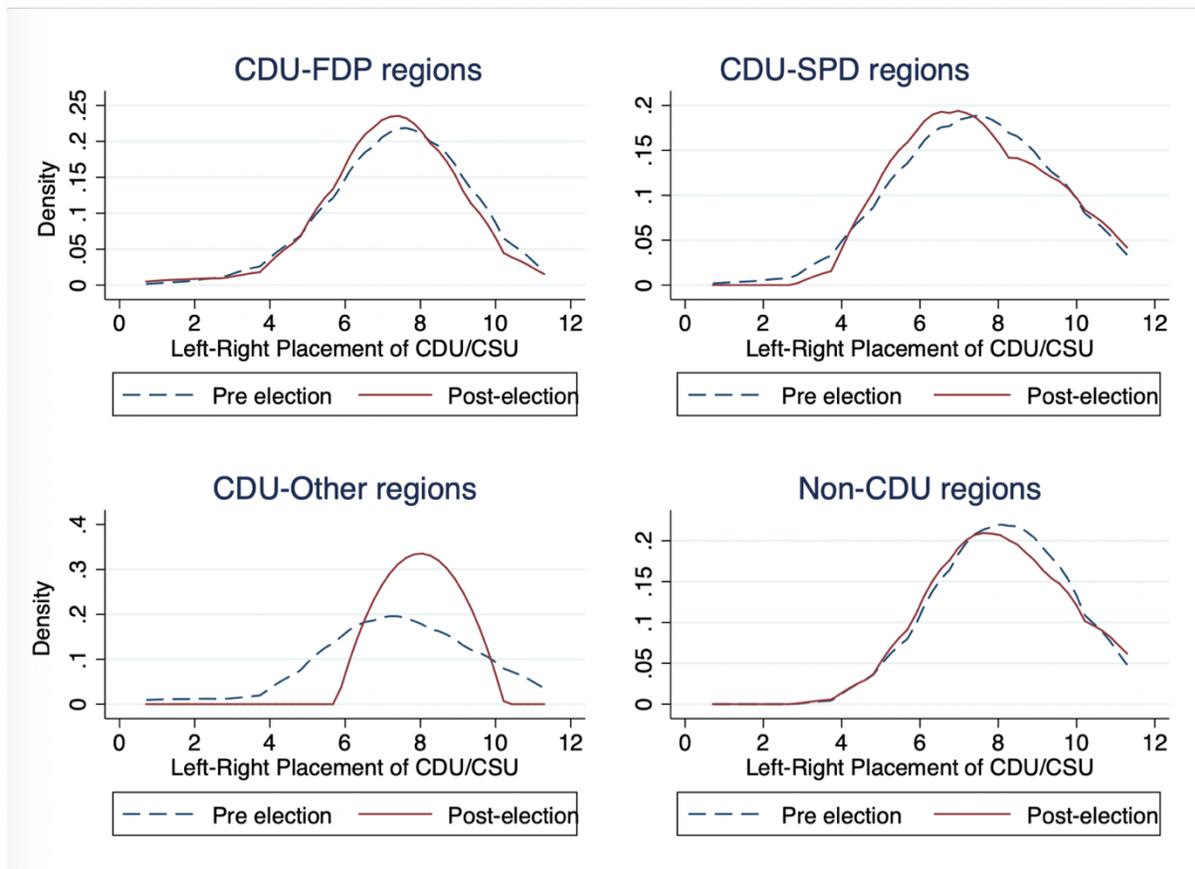
<i>CDU Left-Right placement</i>				
	Before 2009 coalition placement	After 2009 coalition placement	Difference	Welch T-test
All Regions	7.48	7.43	-0.06	p<0.3250
CDU-FDP	7.43	7.26	-0.17	p<0.0157
CDU-SPD	7.44	7.51	0.07	p<0.6515
CDU-Other	7.36	8.00	0.64	n/a
No CDU	8.2	8.2	0.0	p<0.9729

Formerly CDU-FDP cross-cutting regions now found themselves congruent with the national government and the average view of the CDU shifted significantly leftwards (and also the median shifted from 8 to 7). This change reaches conventional levels of statistical significance and provides some evidence that suggests we can act as if there is a difference in the CDU placement before and after the coalition announcement and be right in the long run if such tests were repeated. It is a large shift given the prior expectation of a median shift between elections of 0.29.

On the other hand, formerly congruent (CDU-SPD) regions turned cross-cutting saw a shift in the view of the CDU to the Right slightly but not significantly. Those regions in other cross-cutting coalitions (CDU-Greens for example) that remained cross-cutting had a much larger mean shift to the Right (also shifting the median from 7 to 8). However, there were very few observations from the post-election wave in this situation; therefore, we cannot draw any meaningful inferences from this. Those regions without a CDU government had no change in their average left-right placement. This group act almost

like a control as their position relative to the national government neither changed nor presented any signals about the CDU's multi-level coalition strategy. The shift in the distributions of left-right placements in the sample are presented in the figure below. Density on the y-axis refers to the % of respondents. Checks using the election day as the cutoff instead of the coalition announcement find significant, but different results. There is a significant left-ward shift of the CDU of 0.27 in the CDU-SPD region (a congruent to cross-cutting situation).

Figure 51. Distribution of Left-Right Placement of CDU pre and post 2009 Election



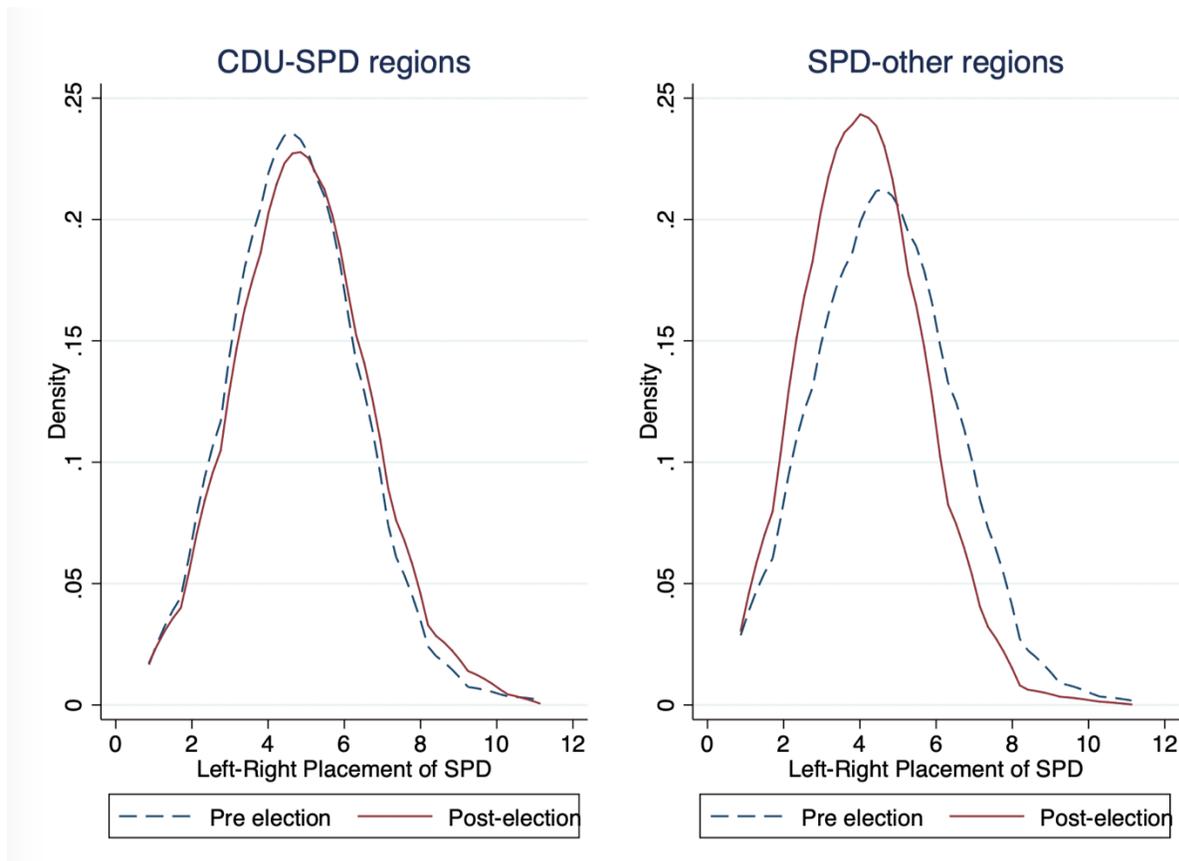
SPD

Looking at the placement of the other two parties, we can see that overall, the SPD was placed just slightly more to the Left after leaving a coalition with the CDU. For those regions that had been congruent and now found themselves cross-cutting, there was a small shift to the Right of the SPD. Why this might be is unclear. Perhaps being in a coalition with the CDU had exemplified the Leftward-ness of the SPD and so assessments were reverting to some prior mean closer to the centre of the spectrum. At the same time, we might have expected the reversion to the centre to have occurred overall then too. In any case, the difference is not statistically significant. In those regions where the SPD were in coalition with a party other than the CDU, we see a shift to the left of more than half a point on this 11-point scale, and this does reach statistical significance. It is an even larger shift than prior expectation of a median shift between elections of 0.29. Again, we see that for regions without the party in question in government there was virtually no change. Checks using the election day as the cutoff instead of the coalition announcement finds no significant results. There are no significant changes in the share of respondents close to the SPD except in CDU-SPD regions (congruent to cross-cutting) of 14% to 7% (chi-square test $Pr = 0.010$), but the sample is quite small.

Table 33. Mean Left-Right Placement of SPD 2009 Election

<i>SPD Left-Right placement</i>				
	Before 2009 coalition placement	After 2009 coalition placement	Difference	Welch T-test
All Regions	4.71	4.65	-0.07	$p < 0.1800$
SPD-Other	4.61	4.08	-0.53	$p < 0.0406$
CDU-SPD	4.71	4.88	0.16	$p < 0.2144$
No SPD	4.7	4.7	0.0	$p < 0.8820$

Figure 52. Distribution of Left-Right Placement of SPD pre and post 2009 Election



FDP

Finally looking at placements for the FDP, there were no FDP-only regional governments, and no coalitions between the FDP and parties other than the CDU. We see a different pattern here: Those regional governments without the FDP actually saw the largest mean shift, of more than half a point, to the Right, while regions in which the FDP and CDU were already in coalition saw a very tiny change of the FDP leftwards that is not statistically significant. This runs counter to the narrative we saw above, where regions without a party participating in national government were unphased by congruence. We could interpret this as saying that in the absence of any signals about coalition congruence one expects a rightward shift in the placement of the FDP when it joins the CDU, but those who had already been living under CDU-FDP governance experienced a muted

effect. Checks using the election day as the cutoff instead of the coalition announcement finds a similar significant effect in non-FDP regions, but also a significant but small (0.16) rightward shift for the FDP overall. There is a statistically significant association between closeness to the FDP and the coalition announcement, such that the share close to the FDP is 7% pre-announcement and 5% post-announcement (chi square test $Pr = 0.012$).

Table 34. Mean Left-Right Placement of FDP 2009 Election

<i>FDP Left-Right placement</i>				
	Before 2009 coalition placement	After 2009 coalition placement	Difference	Welch T-test
All Regions	6.71	6.80	0.09	$p < 0.1500$
CDU-FDP	6.61	6.57	-0.04	$p < 0.5866$
No FDP	6.8	7.4	0.59	$p < 0.0000$

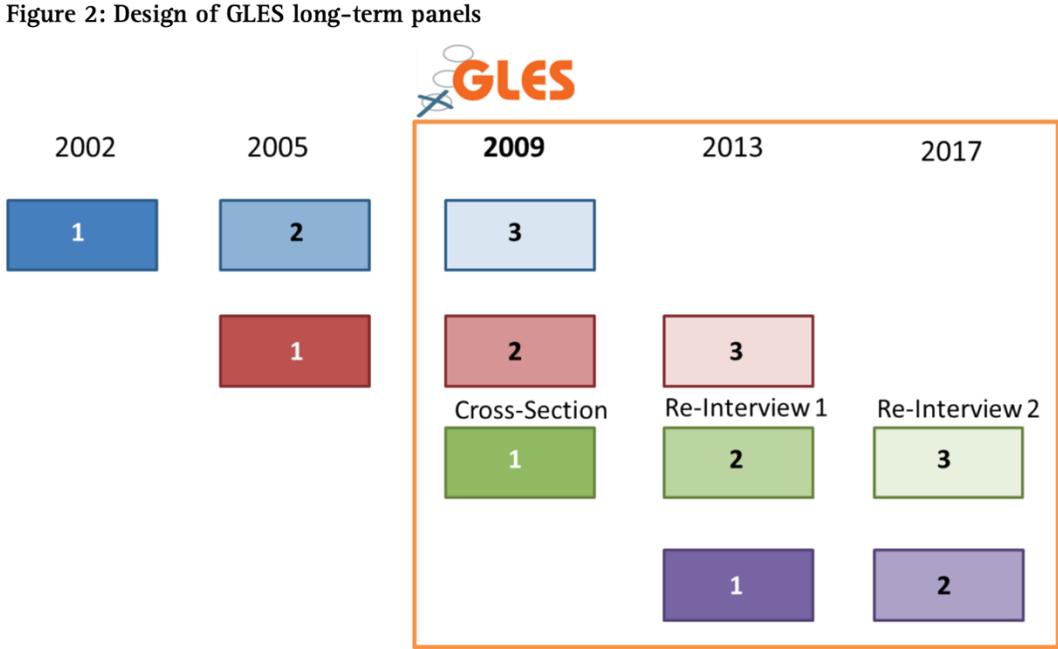
Individual panel data

Cross-section surveys prior to and after elections are an important element of each election study and a useful data resource for this project. However, it is impossible to detect individual changes in voting behaviour with cross sectional data only, only aggregate trends. Repeatedly surveying the same respondent over multiple years has become a wide-spread practice since the first election studies in the United States in the 1940s. In this project, it potentially offered some value to test if the views of the *same* respondent changed in line with changes in congruence.

The best available data relevant to this study comes from long-term panels of the German Longitudinal Election Study (GLES) which are comprised of three pre- and post-election wave panels (illustrated in the image below). Here we focus on the actions of the CDU in 2009 again to see how its decision to join the FDP instead of maintaining its partnership with the SPD affected individuals' perceptions of where the CDU falls on the Left-Right

spectrum. I combine data from the 2002 to 2009 and 2005 to 2013 panels to increase the sample size. For details on the dates surveys were run see the appendix.

Figure 53. GLES long-term panel design



We can look at respondents surveyed between 2005-2009 before the 2009 coalition announcement, and the same respondents when surveyed between 2009-2013 after the 2009 coalition announcement, but before the 2013 election results. We focus on the positions of the CDU as it was in government in both coalitions and as the largest party in the elections had the power to choose its partner.

The dependent variable is the update in the left-right position of the party, calculated as a score between 1 and 11 assigned to the CDU by a respondent at time t in pre-election survey, and subtracted from the score assigned by that same respondent at time $t + 1$ in

the post-election survey. For example, if the CDU was assigned a score of 7 (on the Right) in 2005 and a score of 5 in 2009 the result is a -2 shift to the left. In the same vein, a 2009 score of 8 would be a +1 shift to the right. In addition to displaying descriptive statistics, we employ nonparametric k-sample tests of significance.

To gauge the effect of congruence, we can classify a respondent according to how the region they reside in changed its congruence status when the national government changed in 2009. For those living under a CDU-FDP regional government, the announcement of a CDU partnership with the FDP at the national level is consistent with the view of the CDU they had based on its regional strategy, which now matches. For those living under a different regional government, such as the CDU-SPD, the announcement leads to a mismatch in government composition with the national level. We might expect that *only* people in the latter group will adjust their positioning of the CDU. The reality is likely to be more complicated. Of course, not all regional governments were static in this period and so it is necessary to take into account any changes in regional government occurring too.

Not all of those surveyed in 2005 were interviewed after the 2005 election, and of the 2005 post-election respondents not all were subsequently surveyed *after* the 2009 coalition was announced. A similar issue is true for the 2007, 2009, and 2013 waves. There were 449 valid datapoints of CDU left-right placement from the appropriate pre- and post-election wave surveys.

Before dividing the data by congruence status, we can gather a baseline for the change in CDU Left-Right placement in the panels. For example, for respondents surveyed in 2007 and then after 2009 election, the CDU moved just under 1 point to the right on average, while for those surveyed in 2007 and before the 2013 election (still the same 2009 national government) the CDU had moved 0.2 points to the right (so in reality it likely moved

right and then left). For those interviewed in the 2005 post-election survey and then after the 2009 election, the CDU moved just under 1 point to the left.

Table 35. Mean perceived Left-Right change of CDU

Survey Waves	Mean change in CDU L-R placement
2007-2009	0.8
2005-2009	-0.9
2009-2013	0.0
2005-2013	-0.3
2007-2013	0.2

How did the results differ according to congruence? The 2007-2009 panel likely offers the best estimate as this is the narrowest window between surveys and so has likely the fewest confounding temporal factors such as changes to regional governments or other actions that might have changed the CDU's left-right image. However, it will be necessary to look at the other panel combinations due to the small-N available from only looking at 2007 to 2009 (see the full table below).

For those without the CDU in their regional government, and so only indirectly observing the change in national coalition congruence strategy, there is a slight movement of the CDU to the left. This fits with a branding model of partisanship where the CDU look less right-wing when compared to their new right-wing coalition partner, the FDP. The 0.7 change is also quite close to the 0.8 change observed overall without taking account of regional congruence. The largest shifts occurred when a congruent government became a cross-cutting one (such as a CDU-SPD government). The next-largest shift was by a

congruent government becoming incongruent (an SPD government not composed of the CDU nor FDP). These were both shifts in the opinion of the CDU to the left of more than 1 point. For the former, the CDU brand may now appear extremely confused to a voter as it has now moved from an SPD partnership to an FDP partnership at the national level, while entertaining different partners at the regional level. For the latter, the change is smaller and thus closer to the “No CDU ever” regions, but perhaps the change is starker for regions where the CDU had partnered with the SPD beforehand (making the CDU look more right-wing presumably). For those who were always in congruent situations, the placement of the CDU changed the least and moved to the right. The CDU strategy of partnering with different national partners may be less jarring when they at least take on the same partners at the regional level. A nonparametric k-sample test on the equality of medians suggests a statistically significant difference between the distributions of CDU left-right scores between the congruence groups 2007-2009. However, this test does not highlight which differences are important and the sample is cut quite thinly across the cells so likely cannot be relied on.

Taking the average across all the panel permutations, which widens the ranges of congruence status changes, a more complicated picture emerges. One of the largest changes is still the change from congruent to cross-cutting status (a region which had a CDU-SPD government in both survey periods) at just under a 1-point shift to the left. However, the two largest changes are from incongruent to cross-cutting and from congruent to cross-cutting, both with just under 1-point shifts to the left. However, a nonparametric k-sample test on the equality of medians does not suggest a statistically significant difference between the distributions of CDU left-right scores between the congruence groups (Pearson $\chi^2(7) = 13.3843$ Pr = 0.063).

Table 36. Mean perceived Left-Right change of CDU by congruence

Government Change	Congruence change	2007-2009	2007-2013	2005-2013	2009-2013	2005-2009	Average	N
CDU or CDU-SPD to CDU other	Congruent to Cross-Cutting	2.3	0.5		-0.2		0.7	84
Non-CDU to CDU	Incongruent to Cross-cutting		-0.3	1.0	1.1	0.0	0.8	21
CDU to Non-CDU	Cross-cutting to Incongruent		0.3	0.5			0.2	120
CDU or CDU-SPD to no CDU	Congruent to Incongruent	1.6	-0.8	-1.0	0.1		0.8	18
CDU other to CDU FDP or CDU Only	Cross-cutting to Congruent	0.5			0.3	-1.1	0.3	75
CDU only always or CDU SPD to CDU FDP	Always congruent	-0.3	0.3			-0.9	-0.1	68
CDU other to CDU Other	Always Cross-cutting				-0.4		-0.4	23
No CDU	Always incongruent	0.7	-0.8	-2.0	-0.1		0.0	40

Conclusion

The left-right positioning of a party often serves as a good heuristic for voters when considered where a party is likely to stand on policies, which in turn is likely to affect voting behaviour. This paper has sought to explore the relationship between regional congruence and placements of parties by the electorate on a left-right spectrum, in addition to party attachment. This builds on the notion that perceptions of party brands are crucial in political decision-making like voting behaviour, with such perceptions being informed by party behaviour such as coalition formation.

An underlying tenet of the theory employed here was that coalition membership affects voter perceptions of party left-right positions, as was the idea that this is most informative to the electorate when it contradicts the image of the party presented across multiple levels of government. Otherwise, choosing the coalition at the regional level which matches the coalition at the national level is relatively uninformative and confirmed an individual's prior beliefs about the position of the party.

In the almost natural experiment utilised here comparing the left-right images of parties among survey respondents interviewed before and after a coalition is announced, we saw that when the CDU's multi-level coalition strategy became congruent, there was a change in perception which saw the party appear more left-leaning than before. This suggests the alternative, that when a party becomes congruent it provides useful information. Other evidence pointed away from the predictions or provided no supporting evidence. On the whole, no consistent trends pointing towards the causal mechanisms suggested in the branding model theory were identified. Panel data evidence also failed to produce any evidence of a significant difference in how perceptions of the CDU changed over time between different congruence groups. This appears to be a knock to the assumption that the congruence status of a region affects the left-right placement of a party in similar ways to the national level only. Although it does appear that there are effects which are close or larger than the baseline expected between-election shift, they are not consistent. In terms of party attachment, the Austria case provide some positive evidence for a relationship for congruence change and a change in attachment to the governing party. However, this was not met with significant changes in the left right placement of the party.

As noted at the outset though it was always considered to be a tough test for the hypothesis in this paper to pass. Trying to pick up any effect of regional congruence on

left-right party images, amidst the relative stability in Europe, is difficult, but if found even small changes matter. However, this cases was chosen as a strong case in the sense that we expected if a significant effect existed it would be clearly evident here. Furthermore, data constraints limited this research to only looking at Germany and Austria focusing on specific elections. Expanding the selection to a wider range of countries and time periods was attempted, but at present the publicly available data does not allow one to divide the sample according to both region and congruence without cutting the sample so finely as to defer any inference to a wider population. A major practical take-away from this study is to increase the sample size of such surveys so that subnational subsamples can be investigated, and to ask consistent questions between panel waves. It may also be a step away from methodological nationalism to conduct more surveys in regional election years, or simply non-national election years.

Appendix

Table 37. Timing of GLES long-term panel design

Table 7: Field times of GLES panel surveys since 2009

Year	Panel	Mode	Field Time
2009	ZA5320	CAPI	pre election: 08/06/09-09/09/25 post election: 10/02/09-12/14/09
2009	ZA5321	CAPI	pre election: 08/06/09-09/09/25 post election: 10/02/09-12/14/09
2009	ZA5322	CAPI	pre election: 08/10/09-09/26/09 post election: 09/28/09-11/23/09
2011	ZA5321	CATI	01/04/11-03/18/11
2011	ZA5322	CATI	01/04/11- 03/18/11
2011	ZA5321	MAIL	05/10/11- 10/21/11
2011	ZA5322	MAIL	05/10/11- 10/21/11
2011	ZA5322	CATI	10/06/11- 11/17 /11
2011/12	ZA5322	MAIL	11/22/11- 03/15/12
2011/12	ZA5322	WEB	11/22/11- 01/04/12
2012	ZA5321	CATI	02/22/12 - 03/26./12
2012	ZA5321	MAIL	04/02/12 - 06/15/12

Table 38. Mean Left-Right Placement of CDU/CSU 2009 Election (election day)

CDU Left-Right placement				
	Before 2009 election placement	After 2009 election placement	Difference	Welch T-test
All Regions	7.51	7.43	-0.08	p<0.1362
CDU-FDP	7.41	7.33	-0.08	p<0.2446
CDU-SPD	7.55	7.29	-0.26	p<0.0214
CDU-Other	7.28	7.57	0.29	p<0.1721
No CDU	8.35	8.08	-0.27	p<0.0789

Table 39. Mean Left-Right Placement of SPD 2009 Election (election day)

<i>SPD Left-Right placement</i>				
	Before 2009 election placement	After 2009 election placement	Difference	Welch T-test
All Regions	4.72	4.66	-0.07	0.1576
SPD-Other	4.36	4.13	-0.23	0.3346
CDU-SPD	4.72	4.76	0.04	0.7054
No SPD	4.75	4.70	-0.05	0.4154

Table 40. Mean Left-Right Placement of SPD 2009 Election (election day)

<i>FDP Left-Right placement</i>				
	Before 2009 coalition placement	After 2009 coalition placement	Difference	Welch T-test
All Regions	6.66	6.82	0.16	p<0.0036
CDU-FDP	6.56	6.62	0.06	p<0.365
No FDP	6.75	7.13	0.38	p<0.0001

Conclusion

In this project I have developed a new measure of coalition congruence for use in the fourth wave of coalition studies to chart a comparative history of regional government coalition congruence with the national government. The results across the three statistical and analytical papers employing this new measure are not as large as one may have expected, however this is in large part because to our great surprise the basic data on congruence is not as trending or volatile as one might have expected. However, even despite this limited variation and the myriad of other factors that influence perceptions of political parties, we find some evidence of an effect of congruence. This should cause scholars of coalition politics and federalism to pause and consider to what extent congruence needs to be factored into their models and research questions. Here I briefly summarise the main findings of this project and discuss limitations and avenues it presents for future research.

[How has coalition congruence changed in Western Europe?](#)

This project began with the launching point of an observation from Peter Mair that parties appeared to be increasingly breaking from traditional coalition patterns and opting for new and counterintuitive partnerships. It was hypothesised here that the combination of increasing dealignment in party identification and increases in subnational government would have led to a large and dramatic increase in the number of regional coalitions that cut against the grain of the national government alliances. This would be in contrast to a

period of relatively little incongruence in the 1950s and 1960s when party systems and party attachments were more stable.

Instead, we see a more surprising picture, given these expectations. A first thing to note is that across the entire 70 year time period the share of regional governments matching the national government has rarely been above 50% and in fact the majority of regional governments have been ones in which national government parties rule without their national partners but with some alternative. The 1950s and 1960s are characterised by volatility and huge swings between the percent of regional governments that are completely matching the national government and those which cut across the government-opposition divide. The high point for such cross-cutting occurred in 1966. However, one should bear in mind that this is a period in which as few as three countries made up the population of relevant multi-level democracies in this dataset. If one instead focuses on the period since 1970 when a number of countries joined the ranks, we see a different pattern. After a decade of change it does appear that the share of regional governments matching the national government was trending downwards while the share of cross-cutting governments was trending upwards. However, this trend was gradual, slow, and not without temporary reversals.

This aggregate European pattern also hides significant country variation. Based on country trends we have suggested here that there are four natural groupings of countries based on their historical records of congruence. Spain and Denmark rarely have cross-cutting governments and are often split between fully congruent and fully incongruent regions owing to the nature of the subnational government structures. In Switzerland and Belgium complete incongruence is very rare due to the strength of regional parties and cultures of consensus. Austria, the Netherlands, and Norway are characterised by

consistent high levels of cross-cutting while Germany and Sweden appear to be leading the upward recent trend in cross-cutting.

What Features Make Cross-Cutting More likely?

While there may be some clear overall trends in the aggregate and the country level, can we explain any of this variation? We set the historical record against a series of institutional-based hypotheses and found that cross-cutting appears more often in countries with consensus style democratic norms, and where the executive of the regional authority is forced to share power and influence with a national appointee. It was also shown that regionalist parties would need to be very electorally successful in order for their effect on cross-cutting to be as large as such fixed institutional features of the system. On the other hand, we found that cross-cutting was less likely when local elections were held simultaneously across a country. This was a rather surprising finding and the causal mechanism linking the two is unclear.

Meanwhile, simultaneous regional elections were associated with more fully incongruent regional governments. Fully incongruent regional governments were also common after the formation of incumbent coalitions suggesting that when a regional government opts to reconstitute itself it will do so even when it runs against the national government-opposition divide. We should be clear that these are only correlations in the historical record and the direction or existence of causality here is very uncertain.

How do patterns of congruence affect perceptions of parties?

A central theme running through this project is that we should care about coalition congruence at least insofar as it is connected with wider trends of partisan dealignment. Given that decentralised subnational authorities are unlikely to give up their powers it seems as though taking the congruence between regional and national governments is here to stay. A key question posed in this project was *To what extent does incongruence explain variations in the public's party attachment and perception party brands?* This research finds that individuals are less likely to identify with a party in periods of incongruence or cross-cutting than in congruence. I used regression models and included a range of relevant controls for other potential determinants of partisanship where possible from survey data: polarization, household income, education, age, gender, and fractionalization in the system. Picking up any effect from congruence among these well-known and powerful factors was a somewhat unlikely prospect. However, we do find evidence in support of an effect. Living in a region which has a coalition composed of ideological rivals, an individual is ~1.5 times more likely to be partisan than under where there is ideological harmony between the regional and national government. And we saw about a 30 percentage point difference in the probability of identifying as a partisan between the high and low ends of congruence. In situations when there is a very homogenous cabinet in which all coalition parties share similar policy views, individuals may be suffering from a high degree of misperception, which would lead to a decrease in party attachment, and then this is compounded by signals from the subnational level that the same parties have *different* partners in most regional governments. It appears that when parties are experimenting with many different regional coalition partners, they will remain more distinct if they are partnering with ideological rivals in the national government, and thus fewer individuals drop off, or more people identify with a party. However, the effect of misperception caused by a homogeneous cabinet appears to be

ameliorated when most regional governments also are homogeneous. It could be that when a government dominated by left wing parties controls governments across the country it becomes easier to imagine a Right-Left dichotomy, which overlaps with the government-opposition dichotomy and allows for easy interpretation of party brands and thus an easy object upon which to attach party affiliation. Analysis of regional changes in congruence suggested some tentative evidence that becoming cross-cutting is associated with a reduction in attachment to the party adopting such a strategy. In studying the German federal election in 2009 I found some evidence that choosing a coalition at the regional level which matches the coalition at the national level is relatively informative and shifted an individual's prior beliefs about the position of the party. However, the evidence was mixed or lacking. This does not allow us to make a strong claim about the causal mechanism behind the association between congruence and party attachment that we did identify. It may be that congruence affects the public perception of a party brand, but not in ways that the theory employed in this project assumed.

Limitations

There may be reasonable questions about the external validity of this research. The project focused squarely on Western Europe where the majority of studies on regional coalition dynamics have already been concerned with. This limits analysis to countries with little variation in terms of economics, history, and political culture compared to federal systems elsewhere. Therefore, this project has little to say about how congruence might differ in other regions of the world, especially those without parliamentary systems. There has been some research already in Argentina (Mauro 2018), India (Sridharan 2018), and elsewhere around the globe (Albala and Reniu 2018) that makes

use of different measures of congruence or has not yet tackled the question of effects of congruence.

However, when it comes to significance testing this is not as much of a drawback as one might first think. Common statistical testing aims to generalise about a population based on a large enough sample. Any generalisations being inferred from the analyses here refer only to the Western European countries that the samples are drawn from. It is not being claimed that the results presented here need extend to Africa or to generalise to 500 million people.

With that in mind, there are some reasons to doubt the ability of these findings to generalise to the targeted population of inference. In many cases looking at the subnational level causes survey samples to be cut very thinly for some variables in ways that were likely not always obvious or avoidable. This could pose a risk to the results of some specific claims made in the project.

With greater resources, training, and time one could conduct survey experiments similar to those run by Lupu when developing the branding model of partisanship. Varying the information about a party's regional coalition strategy could be a useful instrument to provide internally valid evidence about whether individuals really do take regional congruence considerations into account when imagining a party. However, this was beyond the scope of this project.

[Further research](#)

Armed with a new clearer measure of congruence researchers can apply the same descriptive work to other regions and time periods. This is important in understanding whether the findings here hold wider external validity than aimed for in this project. The literature on coalition congruence has been mostly based on studies of European countries with few exceptions. This project is no different in that respect, but it is hoped the creation of a new operationalisation and this dataset will provide a ready to use model to employ in other contexts.

The measure of congruence can also be used to test a wider range of outcomes such as regional funding and spending (Kleider, Röth, and Garritzmann 2018; Rodden and Wibbels 2002), policy compromises, which are surely the site of major competition in multi-level systems not only between parties but also within them. How might the national government reward regions which are congruent? This measure can also be used for testing theories of coalition formation against understanding what non-institutional variables make cross-cutting more or less likely. For example, no party level variables were included but surely play a role. One can also chart the associations between congruence and electoral campaign strategies and rhetoric to investigate whether parties explicitly acknowledge cross-cutting strategies and attempt to justify them.

The sixth paper in this project could be extended through the use of a panel or causal inference design that allows for a better identification of the causal effect. Indeed, one of the major practical take-aways from this project is that if we want to understand regional dynamics, we need good regional data. Many election surveys are run when there is a national election, not a regional one. Many national survey datasets may be weighted and balanced according to national demographics but clearly the variation in regional sampling is often stark.

One could more deeply explore the party-level, to check whether the core of Peter Mair's assumption of promiscuity is true. In this project, I have only identified a pattern which is most useful for those interested in the government-opposition divide. However, one may wish to use this dataset to explore the histories of individual parties to assess whether amid a trend of increasingly partnering with members of the national opposition at the regional level, are they always the same opposition partners. One can imagine developing an index of how often a specific party chooses the same partner over time and developing data visualisation that conveys the shades of experimentation occurring at the regional level. It may very well be the case that while at the national level the party has partnered more or less with the same combinations of parties but at the regional level has taken on a much wider circle of partners. The opposite could equally be true. If parties have become much more comfortable aligning with alternative coalition partners at the subnational level in order to maintain roles in government, while eschewing such promiscuity at the national level it could explain the trends we see. The muted size of the effects and trends we see could be due to a gross exaggeration in the congruence among the regional level viz-a-viz the national level because the variation in the independent variable is not so accentuated when you do a regional-national comparison. Taking into account the partisan alignment hypothesis,

The thesis of increasing promiscuity may need to be somewhat revised in light of empirical results here. This thesis is predicated upon a very stable party system, which is reasonable if party systems are the same, but it is impossible to account for the fact that new parties have emerged in this dataset. New parties create promiscuity, but this is not the idea the thesis began with that Socialists become aligned more often with Christian Democrats than the case before and Christian Democrat more with extreme right. The starting idea is from a relatively stable set of alignments that may not hold in the modern

era. For example, practically all the parties in Italy since 1994 are new, and it is mostly for this reason that Italy was not included in this dataset.

One starting point could be to follow the lead of Rodden and Wibbels (2002) who calculated “the share of subnational units controlled by the party of the federal executive” in 15 federations around the world from 1978 through 1996 in order to test whether there is an association between congruent regional governments and economic outcomes.

What is sure is that the compositions of regional governments relative to national governments is far from static and homogenous across Western Europe and is marked by a high rate of regional governments that cut across the government-opposition divide. One cannot pursue new research in the fourth wave of coalition studies without consider what effect this phenomenon could have both for parties and the public.

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