Regional government formation in multilevel settings: Spain and Germany compared

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Paper prepared for the ECPR Joint Sessions of Workshop, Lisbon
April 14-19, 2009

Workshop 8: Party Government and parliamentary Democracy in the New Europe
Coalition formation is one of the main challenges that political parties face in politically decentralized countries. And yet it has received surprisingly little attention from scholars of party politics in multilevel settings. In unitary systems, coalition formation is often a complex game, but its determinants can largely be found among attributes of the national party system, national electoral competition, national institutions and national party organizations.

On the contrary, in decentralized countries coalition formation is a multilevel game. In such settings, political parties operate simultaneously in different party systems and different institutional settings, hold varying weights therein and often need to strike deals with possibly different partners at different levels. All this obviously means that parties are confronted with difficult 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? To replicate coalition agreements at the federal level or to adapt them to the regional context, even if this means departing from a coherent party line?

This paper looks at government formation at the regional level in Spain and Germany. In the first part, the paper proposes an analytical framework for the study of coalition formation in multilevel settings. In the second, it presents an empirical analysis on Spanish and German regional government data. The empirical analysis adopts a mixed-methods research design, combining statistical analysis with a process-tracing analysis of government formation in two selected cases. The main source of data for the process-tracing analysis are interviews with the regional political actors involved in the coalition negotiations.¹

Towards a theory of coalition formation in multilevel settings: Do the classical assumptions hold?

Before testing existing coalition theories on sub-national level data, one needs to revisit a series of assumptions that are made in the literature. It is argued here that in multilevel settings sub-national coalition formations cannot be realistically assumed to be independent from coalition formation at the national level. Political parties need to coordinate their strategy across levels. State-wide parties² differ with respect to the degree of vertical

¹ As many of the interviewees hold public functions of high visibility, their anonymity is preserved throughout the paper.
² A “state-wide party” is defined here as a political party which is contesting both regional and national elections in all or nearly all sub-national territorial units of the country, largely under the same electoral banner; if regional or national elections are fought in certain regions by a regional organizational division of a party which competes
integration of their organization and they come with a variety of party rules regulating the level of autonomy that regional party leaders have in negotiating coalition agreements. Non-state-wide parties also need to develop a two-level governing strategy if they compete in both national and sub-national elections in their home territories. It is thus obvious that, rather than viewing sub-national coalition formation as ordinary instances of coalition formation, we need to adjust the multilevel factor into the theory. The following discussion assesses the validity of four classical assumptions of coalition theory.

**Parties as unitary actors**

The first way in which the multilevel nature of the institutional setting affects our understanding of coalition governments is related to how we conceptualize the party units involved in the formation game. Classical coalition literature is largely based on the assumption that parties are unitary actors. Only recently have serious attempts to relax this assumption been published, with the aim of better explaining real-world coalition behavior.

The strongest argument in favor of the unitary-actor assumption was made by Laver and Shepsle, who argued on the basis of empirical evidence from Western Europe that "parties both enter and leave cabinet coalitions as unified blocks" (Laver and Shepsle 1996: 25). But internal party politics, and most notably factionalism, have also been found to matter (see Bäck, 2008; Laver and Gianetti, 2009; Mitchell, 1999).

If in centralized systems the unitary actor assumption is questionable, in politically decentralized countries it is simply untenable, at least in what state-wide parties are concerned. Different party units are present at the negotiation tables at different levels and the stakes and goals of the leaders composing them are also likely to be very different. Thus, for regional party leaders the immediate stakes of coalition talks are most often related to their personal participation in the government to be formed, while for the national party leaders observing or interfering into the process at the regional level, the stakes are less personal and are related to the coordination of a general party strategy. As one regional politician I interviewed put it, for the national leadership of state-wide parties regional politics is just a chapter of a book, whereas for the regional leaders themselves it is the a book on its own.

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3 A "non-state-wide party" is a party that contest either regional or national elections, or both, in a limited territory of the country (one or several, but never all regions) and which retains a separate parliamentary group organization in sub-national parliaments. If two or more non-state-wide organizations run elections on a common list and following elections form one single parliamentary group, then, for the same justifications as above, they are considered a single NSWP (Ștefurenc, 2007a).
Of course, the level of vertical organizational integration of parties in such systems often varies, but all parties competing in multilevel systems are subject to substantial centrifugal forces. In some cases, the territorial arrangement of the state is mirrored by the organization of political parties. In others, their response to the centrifugal tendencies induced by territorial decentralization to tighten the centralization of the organization. These are two different strategies that target the same problem: how to maintain the desired degree of vertical integration of the party organization. The first strategy proposes accommodation by quasi-federalizing the party organization and devolving powers to the territorial party units. The second one proposes containment and attempts to keep regional branches under the strict control of the center (see Fabre et al., 2005; Hopkin and van Biezen 2005; Deschouwer 2003). These organizational strategies might have more complex aims than simply counteracting factionalism. However, they are also indicating that territorial division is a problem that is viewed seriously by political parties. Differences in the degree of vertical integration of the party organization should be expected to matter for how parties design coalition strategies too.4

Thus, the first thing that needs to be clarified when we talk a party’s coalition strategies in multilevel setting is what we mean by the party, or “who plays the coalition game?” (Laver and Schofield, 1990: 14). For coalition research, what matters is at which level is the power to decide over coalition formation located within the party.5 Determining the locus of the power to decide will inevitably have formal as well as informal components. Formally, party rules usually indicate what level is in charge with this type of decisions. Informally, the national leadership might attempt to intervene in the decision-making process by instructing the regional party politicians involved in coalition negotiations or by attempting to put some kind of political pressure to influence their decisions.

In multilevel settings, sub-national leaders generally do enjoy a certain degree of autonomy in what coalition decisions are concerned. The limits of this autonomy vary from party to party, and even within parties from one territorial unit to the other. A good example here is the case of the Catalan Socialists (Partit dels Socialistes de Catalunya – PSC), who have a special association agreement with the national Spanish Socialists (Partido Socialista

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4 Two excellent accounts of how internal party politics (i.e. the non-unitary character of political actors) plays a role in the formation of sub-national politics are those of Bäck (2003), who looks at Swedish local coalitions and Downs (1998) who compares sub-national coalitions in Belgium, Germany and France.  
5 Deschouwer (2003) uses the term “core level of the party” to refer to the main locus of power within party organizations. This term is broader, as it refers to the general decision-making autonomy, but the author points to the possibility that the core lies at different level for different kind of decisions (i.e. in the governmental, in the electoral and in the parliamentary arena) (Deschouwer, 2003: 217).
Obrero Español – PSOE). They enjoy a far greater degree of autonomy than the regional branches of PSOE. The PSC and the PSOE are formally two separate organizations each with their own statutes. However, instances in which the PSOE attempts to intrude the decision-making sphere of the PSC are not exceptional.

So, who plays the coalition game? One option could be to consider the party at the regional level as the party unit – nevertheless this would mean to skip out the multilevel character of party organizations and conceptualize interventions from the higher level as exogenous. But national and regional leaders are part of the same organization, they often share similar policy ideas and need to develop coordinated strategies. Furthermore, when the party is in government at both levels simultaneously, a substantial amount of interaction in the form of intergovernmental relations takes place on a daily basis between leaders situated at the two levels. Regional leaders of statewide parties are in the difficult position of being both representatives of the government and agents of their national party in the region (van Houten, 2008).

It is thus obvious that there is not one single unit playing the coalition game, but that rather there is a continuous and complex interaction between levels of the party organization. This is the only reasonable assumption one can make about “who plays the coalition game”, and the dynamic of this interaction can only be evaluated empirically.

**Party goals**

Another assumption of classical coalition theory that becomes questionable in multilevel setting is related to party goals. All existing models of coalition formation rest on some fundamental assumptions about the primary goals that parties seek to achieve – office, policy or votes. Starting from the assumption that one of these goals dominates party behaviour, coalition scholars proposed a series of hypotheses about the government participation of political parties or the party composition of the coalition governments, such as the minimal-winning (Neumann and Morgenstern, 1953; Riker, 1962), the minimal range (Leiserson, 1966), the minimal connected winning (Axelrod, 1970) or the median legislator (Black, 1958) propositions. More recent research points to the fact that upholding the assumption that a single type of goal can be attributed to any political party at a given point in time is not very realistic (Müller and Strøm, 1999), and that political parties are complex organizations within which different sectors might be pursuing different goals. Models that integrate multiple goals are generally performing much better against data than those that assume single goals (Martin and Stevenson, 2001).
This paper argues that in multilevel systems political actors might *simultaneously* pursue *multiple different goals at different levels* (Downs, 1998). Which goal predominates will depend on the context of party competition and on the stakes involved in bargaining outcomes. Take, for instance, the case of a moderate regionalist party with relatively strong electoral support in its region. If the degree of regional governing autonomy is substantial, or if the party perceives participation in regional government as a means to enhance autonomy for the region, then this party’s motivation to enter government in what it perceives to be the most efficient governing formula will be of highest intensity. In coalition parlance, the party’s dominant goal in regional politics will be *office*. Moving to the next level, due to its strong and territorially concentrated support, this party might find itself in a pivotal position in the national legislature. It might therefore be offered portfolios in the national government. However, the party might find participation in national government too costly, as it will have to engage in shared government responsibility and thus it might have to dilute its regionalist appeal and risk to lose voters at the next elections. Or the organizational costs of participating at two levels might be too high for the size of its organization. This party would therefore find it more beneficial to take advantage of its pivotal position and condition its parliamentary support to a minority national government on the implementation of a few crucial policies related to territorial autonomy. Its refusal to participate in national government would thus be explained by motivations pertaining to *policy* and *votes*. Thus, the same party unit would pursue simultaneously and with equal intensity both *office*, at one level, and *policy* and *votes*, at the other level.

This difference in primary goals can often be challenging for political parties in multilevel settings. In party organizations with a high level of vertical integration and little territorial autonomy, sub-national elites might develop frustrations if they are systematically denied the possibility to follow their own interest. As Hopkin (2003: 234-5) put it “establishing consistent rules for coalition formation within the national-level party may be difficult if some regional elites are expected to forego opportunities to govern at the regional level for the sake of a party line they may not fully support”. At the same time, if too much autonomy is granted to the territorial units, a party’s vertical integration is put at risk. Also, with different ‘party lines’ developing, the messages sent to the voters might become inconsistent at the two levels.

Establishing which goals are dominant in a party organization is an impossible empirical task as we generally must rely on information about behaviour and try to uncover the motivations that originate this behaviour. It is not the purpose of this paper to go any
further into the matter, but only to point to the fact that multiple goals can be expected to motivate coalition strategies and that our theory needs to take into account the possibility that the regional and the national party leadership might diverge in what they see as the dominant goal at a given time.

**Nested games**

One of the most interesting aspects of coalitions in multilevel settings is how parties coordinate their coalition strategies across levels (Hopkin, 2003; Downs 1998; Buelens and Deschouwer, 2006). No matter how loosely coupled the party organization is, some coordination is deemed to take place for various reasons. First, if parties do not coordinate internally, they will be sending inconsistent messages to voters and members, something with costly consequences. A notorious example comes from Germany, where the Free Democratic Party lost an impressive 29000 members when they shifted from a coalition with the Christian Democrats to a coalition with the Social Democrats in 1969 and another eight to nine thousand when they switched back to the Christian Democrats in 1982 (Rudd, 1986). Second, if they do not coordinate internally they put at risk their organizational cohesion, endangering the life of the national government by potentially lowering levels of party discipline.

Colomer and Martínez (1995) proposed a model of coalition formation in settings comprised of multiple parties acting simultaneously in multiple parliaments. The starting point in their model is the fact that in such settings, parties are confronted with two strategies – they can opt to form different coalitions according to the political situation in each parliament or they can choose to sign a general agreement to always ally with the same parties in all the instances, “even if the pact brings about losses of power in some local parliaments as compared with alternative opportunities for local coalition formation” (Colomer and Martínez, 1995: 43).

The main merit of this model is that it was the first theoretical account that showed that the equilibria that might exist when individual formation opportunities are examined can be easily upset if these opportunities are conceptualized as sub-games of a wider game. The processes of coalition formation in multilevel settings are “nested games” (Tsebelis, 1990). Nevertheless, their model depends on the assumption that parties are unitary, or at least
disciplined, actors and that such general agreements can be imposed and maintained from the center, if need be. This contradicts the first assumption posited in this paper.

It is possible, however, to draw on the basic idea of their model while also relaxing the unitary actor assumption. The argument here is that political parties will try to develop coordinated coalition strategies (Downs, 1998) – but the degree of coordination will vary, depending on how much autonomy the regional party branch has and how much asymmetry exists between the party systems at the two levels. Thus, rather than attempting to impose a single coalition formula all over, national party leaders would try to set some limits of tolerance for regional coalition behavior – i.e. making clear what the excluded alternatives are and leaving more space for the regional branches to chose from among the remaining options. One can also expect that even when these limits of tolerance are transgressed, if the regional party branch enjoys a sufficient level of autonomy, a certain coalition formula that the national leadership does not agree with might be formed. Coalition patterns are also naturally expected to be more varied across levels the more asymmetrical the party systems are – i.e. the higher the disproportionality of seats held by NSWPs in the regional parliament as compared with the seats held by the same NSWPs in the national parliament.

This conceptualization of coalition formation games as nested across parliamentary levels has strong implications for the parties’ bargaining power. If coalition formation games are extend across levels, it means that the bargaining power of political parties can also travel across levels. A party’s pivotal position at one level can be traded for benefits at the other level (Colomer and Martínez, 1995). A party might support a minority government in one parliamentary arena on the condition of receiving particular benefits in another arena. In general, vote exchanges among parties across levels can be expected to be a recurring practice in multilevel systems. This may well explain why in particular multilevel settings minority governments are or are not frequent, why coalitions might typically include non-necessary members, why patterns of congruence or incongruence are observed, or why certain parties enter government in spite of having apparently unfavourable characteristics.

**Two-dimensional policy spaces**

The territorialization of political competition implies a (re)awakening of the center-periphery cleavage (Lipset and Rokkan, 1967). When territory acquires political salience, a new dimension of party competition emerges. Laver and Hunt (1992: 58-59) observed that in their
sample of West European democracies, Spain and Belgium consistently showed that distinct centralization-decentralization dimension cross-cutting the classical left-right dimension. With new regionalist movements and parties emerging (Keating, 2004), the salience of the territorial dimension of party competition is increasing in other Western European countries as well.

Some authors have already incorporated multidimensionality of the policy space in their models. An early bi-dimensional account is that of Luebbert (1986), who posited that parties prefer forming coalitions with partners whose policy preferences are not proximal, but tangential to their own. Schofield (1993), Schofield and Sened (2005), Laver and Schofield (1990) and Laver and Shepsle (1996) developed what remained until now the most elaborated models of government formation in multi-dimensional spaces. The thrust of these authors’ argument is that where it exists, the party occupying the core of the policy space will always be included in the governing coalition.

This assumption of the two-dimensional character of the policy space is inherently built in many of the existing accounts of party politics in multilevel systems (Reniu, 2005; Heller, 2002; Mershon and Hamman, 2000; Colomer and Martínez, 1995). However, not all parliaments are two-dimensional. In Germany for example, the question of extending or restricting the decision-making autonomy of the Länder is not a divisive issues among parties at any one level – it is however a divisive issue within parties across the two levels. Even in a country like Spain, where the territorial axis is highly salient in several autonomous communities, some regions are purely one-dimensional, with no territorial division between political parties.

Again, like in the case of party units and party goals, the only way to assess how many dimensions are active in the political settings we are analysing is empirical. As Laver and Hunt (1992: 25) admitted in response to this problem, “the most feasible way forward is to work with purely empirical notions of the dimensionality of policy spaces”. Therefore, rather than positing that in multilevel settings party competition is bi-dimensional, this paper adopts a more flexible position, arguing that, where it exists, we need to include the territorial dimension of party competition in the explanation of coalition formation.

**Hypotheses**

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6 The core is basically the intersection of the two medians in two-dimensional spaces. Unlike the simple median, the core is rarely occupied by an existing party (see Schofield and Sened, 2005).
The previous section revised the assumptions for government formation in multilevel settings. To summarize, it was argued that parties are not unitary actors and that the goals they pursue might vary across levels at any given time. It was also argued that coalition formation at the sub-national level cannot be analysed in isolation, but that the actors involved take part in an (at least) two-level game. Their bargaining power is also cumulative across levels. Finally, it was argued that we need to conceive of the policy space as being bi-dimensional, but also be able to allow for variation as not all parliamentary contexts have a second salient dimension of party competition.

The remaining question now is how these revisions affect our existing theoretical knowledge of coalition formation? Coalition formation theories usually try to answer two related questions – what kind of government is most likely to form and what type of parties it is most likely to contain (Bäck, 2004). They thus aim to predict on the one hand what kind of coalition is more likely to take shape in each government formation opportunity. Examples of these theories are the famous minimal winning (Neumann and Morgenstern, 1953), the minimal range (Leiserson, 1966) or the minimal connected winning propositions (Axelrod, 1970). On the other hand, existing coalition theories have also focused on predicting what type of parties are more likely to get in government. One of the most celebrated predictions from this approach is the median legislator hypothesis (Laver and Schofield, 1990). Other examples are the core party proposition (McKelvey 1967; Schofield, 1993) and the strong party proposition (Laver and Shepsle, 1996).

If we start from the new set of assumptions presented in the previous section, it is questionable whether many of the classical coalition formation propositions still hold. My expectations regarding the performance of selection of the most influential classical propositions of coalition formation in multilevel settings are presented below. 7

1. The winning proposition argues that only majority governments will form. This hypothesis has already been widely challenged in the literature, as minority governments are fairly common and are favoured by certain institutional settings which grant the parliamentary opposition with a degree of policy influence (Strøm, 1990). Besides the enabling factors identified by Strøm (1990), in multilevel settings we can expect minority governments to form more easily because parliamentary support can be traded between parties across levels. A party supporting a minority government at the national level can exchange its support for

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7 The selection is based on De Winter and Dumont’s (2006) review of the state of the art in coalition theory and on Martin and Stevenson (2001).
being at its turn supported in a regional minority government by the party in national government.

2. The *minimal winning* proposition (H1) (Neumann and Morgenstern, 1953) argues that only those coalitions which do not contain any unnecessary members above the majority threshold will form. This has been corrected by the policy-driven theories (see the *minimal connected winning* proposition below). In multilevel settings we can expect that parties which are numerically unnecessary in a certain formation opportunity might sometimes be included in a regional government due to their strong bargaining position at the national level. The same logic would explain the formation of minority governments (i.e. non-winning coalitions): a party supporting a minority government at the national level can exchange this support for being at its turn supported in a regional minority government by the party in national government.

3. The above considerations also apply to two the *minimum parties* proposition (H2) (Leiserson, 1966), which states that potential coalitions are more likely to form the less number of parties they contain.

4. Moving on to propositions that account for policy goals, the *minimal range* (H3) proposition (Leiserson, 1966) states that potential coalitions are more likely to form the smaller the ideological span they cover. The *minimal connected winning* (H4) proposition (Axelrod, 1980) goes further than this and argues that parties seek to enter government with adjacent parties only, positing thus that parties are more interested in reaching an ideological compact solution than they are in keeping the number of coalition members to a minimum. The problem with both these classical predictors of coalition formation is that they are relevant in one-dimensional policy spaces. Both range and connectedness are likely to become inapplicable when the policy space has a second salient dimension. If parties’ rank ordering on the first and second dimensions do not coincide and especially if the distances two dimensions have different salience for different parties, distances between a coalitions’ members might be inflated or deflated unsystematically. Connectedness also looses relevant as parties that are adjacent on one dimension might not coalesce because their positions on the second dimension puts them at odds.8

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8 Take for example the situation of a five-party legislature in which parties are placed as following. On Dimension 1, A – B – C – D – E, with E quite far removed from the rest of the parties towards the right-end of
5. The *median legislator* (H5) proposition (Laver and Schofield, 1990) shifts the focus from the characteristics of the coalition as a whole to those of the potential coalition partners individually, stating that the government that forms will include the party containing the median legislator in the parliament. This hypothesis has been repeatedly and robustly supported by empirical research. This proposition comes with two main drawbacks. First, while it successfully predicts the inclusion of one particular party with a certain property, it states nothing about what combination of parties will enter government alongside with the party containing the median legislator. Second, its predictive power decreases as we move from one-dimensional to two- or multi-dimensional policy spaces. If more than one policy dimension is salient, a coalition would have to contain each of the median parties. This might often turn to be numerically untenable. But the median party might on a certain dimension might also be kept out from a coalition alternative by particular interplays between the national and the regional level – for example if the leaders of a median regional party are subordinate to the national leadership, this latter can rule out certain coalition formulae at the regional level and thus prevent the median to be included. Or, because a pattern of government support exchange exists among levels, minority governments can be formed by non-median parties because these parties can rely on the support of the regional leadership of the party they are at their turn supporting at the national level.

6. There are some important attempts to generalize the *median legislator* proposition to multi-dimensional spaces. Schofield et al. (1988) put forward the *core party* (H6) proposition – if the policy space is multi-dimensional, the party that whose policy position in this multi-dimensional space lies within the area determined by the intersection of all dimension-by-dimension medians, this party will always be included in the coalition that forms. This is an appealing proposition that would theoretically apply smoothly to multilevel settings as well – one could argue that if a core party exists, it will be indeed very difficult to form a coalition without including it. The main downside is that this core area of the policy space is in reality the policy axis. On Dimension 2, the order of the parties is A – E – C – D – B, this time with B quite far removed from the rest of the parties towards the higher-end of the policy axes. In this situation, if both axes are relevant for coalition formation, parties B and E will be excluded because of their radical position on the second and on first dimension respectively. If we further suppose that C and D only command a slim majority of seats, it follows that the only possible alternative left is a coalition between A, C and D, which is disconnected (i.e. it includes non-adjacent parties) on both dimensions.
rarely occupied by a political party (Schofield and Sened, 2005) and therefore the applicability of this theoretical proposition is severely limited.

7. Because bargaining involves transaction costs and because familiarity with coalition partners and inertia help reduce these costs, (Franklin and Mackie, 1983), Warwick (1996) hypothesised that *incumbent coalitions* (H7) have more chances to stay in office when a new formation opportunity arises. In multilevel settings of some hierarchical nature, changes of the coalition formulae at the national level might determine correspondent changes at the regional level. The regional level might also act as a laboratory for coalition experiments as Dodd (1976) suggested, in which case novel rather than incumbent formulae are more likely to form. At their turn, changes in coalition patterns at the regional level might trigger changes at the national level, despite an incumbent majority that would still be possible in a new formation opportunity (see Buelens and Deschouwer, 2007; Deschouwer, 2009).

In light of these qualifications, the hypotheses listed above will be tested on a dataset of regional governments from Germany and Spain. As one of the core assumptions of the revised theoretical framework pertains to the multilevel nature of the coalition game, two further hypotheses will be tested:

8. Coalition combinations that are incongruent with the government-opposition alignments at the national level will be avoided at the regional level. Most of the existing literature on government formation in multilevel settings suggests that the congruence or overlap of coalition combination across levels is a crucial explanatory factor (Roberts, 1989; Deschouwer, 2009). More recent research shows that rather than ensuring the exact match between governing formula across levels, regional parties are careful not to strike coalition deals that are *cross-cutting* the government-opposition alignment at the national level (H8) (Pappi et al., 2005; Debus and Däubler, 2009). In other words, it does not matter whether parties that are in opposition at the national level form whatever coalition they think fit at the regional level. What matters is that the parties in national government do not use the regional arena to ally with their opponents at the national level.

9. As the coalition game is not played according to a single-shot scenario, previous experience matters. That is why I hypothesize that *innovative coalitions*, that is, coalition combinations
that have never been tried before at either the regional or the national level, are less likely to form (H9).

**Data and method of analysis**

For the purposes of this analysis, a dataset containing information about a total of 113 regional governments that formed in Spain and Germany was compiled. The time periods for which data was collected are slightly different for the two countries. Thus in Spain, the regional governments covered were formed since the first democratic regional elections held in 1980 until the last available elections held in 2007. In Germany, the post-reunification period marked by the 1990 elections in the new Eastern Länder and running up until the last regional elections held in 2007 is covered. The dataset thus contains information about 55 and 58 regional governments in Spain and Germany respectively. It excludes those cases in which a single party won a majority of parliamentary seats and formed a majority government, covering only the instances in which either a coalition containing at least two members was formed, or a minority government was set in place.

A new cabinet was counted using the standard literature conventions, namely every time either of the following conditions was satisfied: (1) a new prime-minister is invested; (2) following elections; (3) a change is recorded in the party composition of the cabinet (Müller and Strøm, 2000); or (4) a change occurred in the majority status of the government and this latter passed from a minority to a majority government or the other way around (Reniu, 2005).

The dataset is structured as follows: each coalition or minority government that formed is entered alongside with all the other possible party combinations that existed in that

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9 For compiling the list of regional governments that were formed in the timeframe of the analysis the following sources were used: Reniu (2004), Alcántara and Martínez (1997) and official websites and documents of regional parliaments and governments in Spain; www.election.de, Gunlicks (2003), Reutter (2006) and the Political Data Yearbook published yearly by the European Journal of Political Research.

10 Between 1980 and 2007, if we exclude the situations of one party enjoying a parliamentary majority status on its own, a total of 94 minority or coalition cabinets were formed at the regional level in Spain. Due to missing data about party policy positions at the regional level which are crucial for the set of hypotheses about coalition formation that are tested here, only 55 of these cabinets are in the analysis. I argue that valid conclusions can be drawn even if not all Spanish regional governments are included – generally data is missing only for those governments which have formed during the 1980s, that is, at the beginning of the analyzed period, when the party system was still in flux. In Germany we count 58 single party minority or coalition regional governments. All of them are included in the analysis.
formation opportunity.\footnote{Several combinations containing that contain anti-system or far-right parties are excluded from the calculations. In Spain the potential coalitions that contain the parties Unity of the People/\textit{Herri Batazuna} (HB) and We, the Basque Citizens/\textit{Euskal Herritarrok} (EH) in the Basque Country and in Navarra. The Communist Party of the Basque Territories/\textit{Partido Comunista de las Tierras Vascas} (PCTV) is also excluded as a viable potential coalition partner. In Germany, the potential coalitions that contain the Republicans/\textit{Republikaner} (REP), the German Popular Union/\textit{Deutsche Volksunion} (DVU) or the National Democratic Party/\textit{Nationaldemokratische Partei Deutschlands} (NPD), which occasionally gained parliamentary representation in various German regions, are excluded from the set of potential combinations.} This amounts to a total of 2452 observations, grouped in 113 cases of formation opportunities. This operationalization follows the approach of Martin and Stevenson (2001: 38).

Some words are in order about certain types of information included in the dataset. One of the essentials of coalition research is the availability of data regarding the policy positions of potential coalition partners in the legislatures considered. Basic as this may be, generating this type of data is problematic from both theoretical and empirical points of view. How to locate parties in the ideological space? How many dimensions does the ideological space contain? Are policy positions sufficient or does the intensity of how parties feel about certain policy dimensions also matter? These are questions that divide scholars of political parties and democratic government. Once an answer to these questions is given, the data collection effort may begin and one cannot overemphasize the immense amount of time and resources that were and are still being spent on generating this data.

An overview of the existing methods of generating data on party policy positions identifies five main approaches. A first method is to use survey data on how voters perceive the location of political parties. As Mair (2001) qualified it, “mass surveys have in fact proved one of the principal and most robust means of charting party and/or voter positions” (Mair, 2001: 14). The advantage of this method is that survey data on how voters place political parties is generally collected with regularity and available in most countries where democratic elections are held. Nevertheless, this type of data tends to be collected only about the general left-right dimension of party competition. Where this is the case, we have no comparable cue on how parties are positioned on other salient policy dimensions. At the same time, as we move from country to country, this type of data is collected with much less regularity at the regional level.

Another widely used method is that developed by the Comparative Manifesto Project (CMP), which relies on an elaborate scheme of coding party manifestoes to come with comparable policy position scores across a variety of national contexts (Laver and Budge, 1992; Klingemann et al., 1994; Budge et al., 2001). While this data is by now available over a substantial period of time and for a large number of countries for parties competing at the
national level, attempts to replicate the procedure to code the manifestoes that parties produce for competing in regional elections are only at their very beginnings (Maddens and Libbrecht, 2008; Libbrecht et al., 2008).

A third method to generate data about party policy positions is to conduct expert surveys (e.g. Castles and Mair, 1984; Laver and Hunt, 1992; Huber and Inglehart, 1995). The advantage of this approach is that it is much less time consuming than the CMP method. Among other things, its disadvantage is that this type of surveys are usually taken at a single point in time and not followed up as soon as a new election takes place, being thus unable to account for parties shifting policy positions in time. To counteract this problem while bringing the added advantage of being much less labor intensive than the CMP method, Laver et al. (2003) developed a fourth method, the wordscore technique, which relies on assigning the scores derived from an expert survey to the party manifestoes closest in time to the period when the expert survey was taken and then using a computer program to compare these reference manifestoes to other manifestoes the same party produced for another time point. Bräuninger and Debus (2008) extended the application of this method to derive scores for party policy positions in German regional elections.

Finally, party policy positions can also be derived from elite interviews or surveys. For coalition research, this method comes with a particular advantage, being the only one that enables us to get an indication of how far or how close party leaders perceive the other parties in the system to be from their own position. Although highly sensitive to the individual subjectivity of the respondents, it can be argued that when coalition negotiations are taking place, these subjective perceptions of the party leaders that are running the negotiation process might be better explaining the outcome than the “real-world” ideological placements deducted in a more objective manner. It is however a costly method of data collection and like any type of survey, it is conditioned by the moment in time in which it was conducted. It cannot be used to cover a long time period of successive governments and it is also usually limited to only a few parliamentary settings.

Discarding the CMP method as it is only now beginning to be applied to regional election manifestoes and the results are not yet available, it appears that for an extensive

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12 This method raised a series of criticism for its blindness to the significance of the words whose frequency it counts and codes. Basically the method relies on comparing the frequency with which words related to specific policy categories appear in the reference text – i.e. the party manifesto we can assign scores to via the expert survey, and in the virgin text – i.e. the new party manifesto which we would like to assign scores to. Authors like Hug and Schulz (2007) or Klemmensen et al. (2007) performed successful cross-validation of the results obtained via this technique. For a discussion on the comparative value of three major existing approaches see Volkens, 2006.
database such as the one used here one has to choose either the classical voters’ placement of political parties or the wordscores technique relying on a combination of expert surveys and party manifestoes. Unfortunately, at this moment none of these two methods could be applied consistently across the two countries explored here. Thus, while Bräuninger and Debus (2008) developed a complete dataset on regional party positions in Germany, regional party manifestoes have not even yet been collected for all the Spanish regions and election times. At the same time, while questions about how voters place political parties have been asked since 1987 onwards in several post-electoral surveys conducted on individual samples in Spain’s 17 regions, the same type of data is not generated in Germany in any systematic way.

That is why the data used here was generated by using two different approaches. For the German cases, the Bräuninger and Debus (2008) data was used. This data places parties on a 1-20 scale\(^{13}\) on the two policy dimensions that are commonly identified as structuring party competition in Germany: the economic left-right axis and the social liberalism-conservatism axis (Laver and Budge, 1992; Klingemann et al., 1994).

For the Spanish cases, average policy scores from the autonomous post-electoral surveys carried out by the Center of Sociological Investigations (CIS) were used. These are not available for all years and, regrettably, the territorial dimension of party competition which is the second axis of party competition in Spain (Laver and Hunt, 1992; Heller, 2002) is poorly explored. Nevertheless, based on existing data points, positions were generated for as many formation opportunities as possible.\(^{14}\) Respondents’ placements of parties on a 10-point left-right scale and, where available, on a 10-point nationalism-centralism scale were used. This data was processed with the *Horizons 3D* software\(^{15}\) to generate values on variables such as the majority status of each potential coalition, its minimal winning status, its size and its ideological range. Further computations created variables that describe whether a coalition is minimal connected winning and whether it includes the median party on both the first and, where available, the second dimension.

\(^{13}\) The positions were rescaled to fit on a 1-10 scale so as to make them comparable with the data available for the Spanish cases.

\(^{14}\) Data about party policy positioning on the territorial dimension is only collected in Galicia, the Basque Country and Catalonia. Respondents are asked to place parties on a scale ranging from minimum minority nationalism (1) to maximum minority nationalism (10). As Navarra is also a case in which this second dimension plays an important structuring role in party competition and government formation and as, with the exception of the Convergence of Navarre Democrats (*Convergencia de Democràtas de Navarra – CDN*), all other parties that compete in Navarra also compete in the Basque Country, scores for Navarra were generated on this second dimension based on data from the Basque Country. As previous research shows that it is only a matter of degree that separates the positions of CDN and the Union of the People of Navarra (*Union del Pueblo Navarro – UPN*), these two parties were allocated the average scores of the Popular Party (*Partido Popular – PP*) from the Basque surveys.

\(^{15}\) Available from [http://www.sfu.ca/~warwick/program/](http://www.sfu.ca/~warwick/program/).
The dependent variable in all the models contains information about whether a particular coalition alternative formed or not. Due to the nature of the dependent variable, a conditional logit model is used to estimate the effects of a series of determinants of coalition choice. One problem with this type of model is that it assumes that observations within groups are independent, i.e. that the formation of one government alternative is independent from the other coalition alternatives in each formation opportunity. In order to test whether this assumption is problematic here a Hausman test is applied before running all models. The average values of the test statistic for rejecting the independence of irrelevant alternatives (IIA) null hypothesis are reported for each model – all are far above the threshold value, which indicates that the IIA assumption is not problematic for the model estimation.

16 In this model, the predicted probability of observing alternative $m$ on the dependent variable $y$ is:

$$\Pr(y = m \mid z_i) = \frac{\exp(z_{im}\beta)}{\sum_{j=1}^{j} \exp(z_{ij}\beta)}$$

for $m=1$ to $j$, where $z_{im}$ contains the values of the independent variable for alternative $m$ for observation $i$ (Long and Freese, 2006: 297).

17 I use the procedure developed by Martin and Stevenson (2001: 39), which drops a random ten percent of the alternatives (with the exception of the government that eventually formed) and produces the average Hausman test statistic over 20 iterations. Obtaining an average test statistic higher than 0.05 indicates that the IIA assumption is not problematic. Average test statistics for the IIA hypothesis are reported in each table. All models also correct for heteroskedasticity by using robust standard errors.
Findings and discussion

This section puts to test the following hypotheses regarding regional government formation:

H1: Potential coalitions are more likely to form if they do not contain any unnecessary members above the majority threshold (the minimal winning hypothesis).

H2: Potential coalitions are more likely to form if they contain a smaller number of parties (the bargaining hypothesis).

H3: Potential coalitions are more likely to form if they cover a minimal ideological range (the minimal range hypothesis).

H4: If different minimal winning solutions are possible, the combinations that include parties that are ideologically adjacent are more likely to form (the minimal connected winning hypothesis).

H5: Amongst the possible combinations, those coalitions that include the party controlling the median legislator are more likely to form (the median legislator hypothesis).

H6: If the policy space is multi-dimensional, the coalitions containing the party whose policy position lies within the area determined by the intersection of all dimension-by-dimension medians are more likely to form (the core party hypothesis).

H7: Because bargaining involves transaction costs and because familiarity with coalition partners help reduce these costs, incumbent coalitions are more likely to form when a new formation opportunity arises (the incumbency hypothesis).

H8: Coalitions that are incongruent with the government-opposition alignment at the national level (i.e. cross-cutting coalitions) are less likely to form.

H9: Coalition combinations that have never been tried before at either the regional or the national level (i.e. innovative coalitions) are less likely to form.

Hypotheses H1 through H7 are tested in the six models presented in Table 1. The first model in Table 1 contains only office-related variables, attempting to test how good the predictive power of the minimal winning (H1) and the minimum number of parties (i.e. bargaining) (H2) propositions is. The second model introduces a first policy-related variable – the policy distance between the two most remote parties in the potential coalition combination (H3). All estimates in these first two models are highly significant and act in the expected direction\textsuperscript{18}: it

\textsuperscript{18} All coefficients reported in the logit and conditional logit models in this dissertation are odds ratios. Odds ratios compare two probabilities: that of scoring 1 on and that of scoring 0 on the dependent variable. Their interpretation is highly intuitive: if the value of the odds ratio is higher than 1, then the variable has a positive
is more likely for a coalition to form if it is minimal winning, if it contains a smaller number of parties and if the policy distance between its two most remote partners is smaller. However, while the minimal winning characteristic consistently exerts highly significant effects across the series of models tested in this paper, the number of parties ceases to be significant when we include new variables, although it continues to act in the expected direction (Models 3 through 6).

Table 1: Classical predictors and coalition formation in multilevel settings

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal winning</td>
<td>12.06***</td>
<td>14.86***</td>
<td>14.11***</td>
<td>9.049***</td>
<td>7.894***</td>
<td>7.500***</td>
</tr>
<tr>
<td></td>
<td>(2.90)</td>
<td>(3.93)</td>
<td>(6.98)</td>
<td>(5.32)</td>
<td>(4.40)</td>
<td>(4.22)</td>
</tr>
<tr>
<td>Bargain</td>
<td>0.335***</td>
<td>0.651**</td>
<td>0.925</td>
<td>0.902</td>
<td>0.757</td>
<td>0.745</td>
</tr>
<tr>
<td></td>
<td>(0.055)</td>
<td>(0.13)</td>
<td>(0.25)</td>
<td>(0.25)</td>
<td>(0.22)</td>
<td>(0.21)</td>
</tr>
<tr>
<td>Minimal range</td>
<td>0.801***</td>
<td>0.809**</td>
<td>0.819**</td>
<td>0.825**</td>
<td>0.814**</td>
<td>0.814**</td>
</tr>
<tr>
<td></td>
<td>(0.043)</td>
<td>(0.069)</td>
<td>(0.071)</td>
<td>(0.073)</td>
<td>(0.072)</td>
<td></td>
</tr>
<tr>
<td>Minimal connected winning (1st policy dimension)</td>
<td>2.447**</td>
<td>4.914***</td>
<td>2.853**</td>
<td>2.746*</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.26)</td>
<td>(2.50)</td>
<td>(1.47)</td>
<td>(1.44)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Minimal connected winning (2nd policy dimension)</td>
<td>0.796</td>
<td>2.143</td>
<td>2.243</td>
<td>2.044</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.30)</td>
<td>(1.30)</td>
<td>(1.44)</td>
<td>(1.28)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MCW2</td>
<td></td>
<td></td>
<td></td>
<td>0.226**</td>
<td>0.224**</td>
<td>0.283*</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.16)</td>
<td>(0.15)</td>
<td>(0.19)</td>
</tr>
<tr>
<td>Median legislator (1st policy dimension)</td>
<td></td>
<td></td>
<td></td>
<td>6.111***</td>
<td>23.77***</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(3.17)</td>
<td>(16.2)</td>
<td></td>
</tr>
<tr>
<td>Median legislator (2nd policy dimension)</td>
<td></td>
<td></td>
<td></td>
<td>0.832</td>
<td>6.781**</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>(0.39)</td>
<td>(5.08)</td>
<td></td>
</tr>
<tr>
<td>Core</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.0556***</td>
<td>(0.055)</td>
</tr>
<tr>
<td>Observations</td>
<td>2452</td>
<td>2452</td>
<td>1778</td>
<td>1776</td>
<td>1745</td>
<td>1745</td>
</tr>
<tr>
<td>McFadden R-square</td>
<td>0.224</td>
<td>0.249</td>
<td>0.334</td>
<td>0.343</td>
<td>0.393</td>
<td>0.411</td>
</tr>
<tr>
<td>Log Pseudolikelihood</td>
<td>-253.24</td>
<td>-245.46</td>
<td>-150.19</td>
<td>-148.03</td>
<td>-134.55</td>
<td>-130.65</td>
</tr>
<tr>
<td>Average value for IIA assumption</td>
<td>0.68</td>
<td>0.83</td>
<td>0.92</td>
<td>0.78</td>
<td>0.79</td>
<td>0.78</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses. Coefficients are odds ratios.
*** p<0.01, ** p<0.05, * p<0.1

Model 3 assesses the importance of minimal winning coalition to be ideologically connected. We observe that policy connectedness on the first policy dimension increases the odds of a coalition to form, but connectedness on the second dimension does not have significant effects on these odds. Moreover, it acts in the wrong direction. When introducing a multiplicative interaction term that captures the existence of a connected coalition not just effect, otherwise it has a negative effect. While standard logit coefficients can only give information about the direction of an effect, odds ratios also give an estimate of the size of the effect (Long and Freese, 2006).

19 The resulting drop in sample size is due to the fact that there is a substantial amount of data points in the Spanish subsample for which the second dimension of party competition does not exist.
one or the other, but on both policy dimensions (MCW2), statistical significance is attained. As with all interaction effects, one needs to be careful with the interpretation of the direction and the size of the reported coefficient of this interaction terms. The correct odds ratio of the interaction term that defines the simultaneous existence of connectedness on both policy dimensions is 1.2\(^{20}\), meaning that the odds of a coalition to form are 1.2 times higher if the coalition is connected on both dimensions (compared to if it is connected on only one dimension or on none of them).

A highly influential proposition of classical coalition theory is that stating that proto-coalitions containing the median legislator are more likely to form. This is confirmed by Models 5 and 6. These two models leave largely unaltered the size and significance level of the coefficients from the previous models, but visibly improve the overall model fit as it is shown by the McFadden R-square statistics in Table 1. The difference between Model 5 and Model 6 is that the latter includes an interaction term (\textit{core}) specifying whether the proto-coalition includes the party(-ies) containing the median legislator on both policy dimensions – it takes a value of “1” if this is the case and “0” otherwise. Model 5 leads us to conclude that the inclusion of the median on the first policy dimension is a very strong and significant predictor of the probability of a coalition to form while the second dimension median has statistically insignificant effects (which also do not go in the expected direction). Nevertheless, once the interaction term \textit{core} is included, this appears to change, as both median legislator variables and their interaction have significant effects acting in the expected direction. Again, the interpretation of the \textit{core} estimate cannot be read directly from Table 1 – a simple post-estimation procedure indicates an odds ratio value of 1.35 for this estimate.

So far it appears that coalition formation at the regional level is comparable to national government formation in unitary states (see Martin and Stevenson, 2001). The minimal winning and the minimal range propositions perform very well across the board. The models also show some support for the minimal connected winning hypothesis, although this variable’s estimates are not that robust across the series of models. Finally, it appears that one of the strongest explanatory factors is the inclusion of the party of the median legislator on the left-right policy dimension.

Previous research on national government formation shows support for the hypothesis that incumbent administrations are more likely to form (Martin and Stevenson, 2001). This hypothesis is also strongly supported by our data. Model 7 in Table 2 shows a clearly

\(^{20}\) This is computed with the post-estimation command \textit{adjust} in STATA. For the interpretation of interaction effects in logit and probit models see Norton et al. (2004).
significant effect of the incumbency variable, accompanied by an important increase in model fit relative to Model 6 in Table 1. But once we control for incumbency, only the minimal winning characteristic and the inclusion of the median legislator on the left-right policy dimension maintain their previous significance levels. The other variables, most notably policy distance and connectedness, no longer have any significant effects. Overall, this model suggests that coalition combinations are more likely to form if they are minimal winning, if they are incumbent coalitions and if they contain the party of the median legislator on the left-right policy dimension.

Table 2: Incumbency & multilevel effects on government formation

<table>
<thead>
<tr>
<th></th>
<th>Model 7</th>
<th>Model 8</th>
<th>Model 9</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimal winning</td>
<td>7.513***</td>
<td>8.295***</td>
<td>9.713***</td>
</tr>
<tr>
<td></td>
<td>(4.66)</td>
<td>(5.27)</td>
<td>(6.52)</td>
</tr>
<tr>
<td>Bargain</td>
<td>0.789</td>
<td>0.918</td>
<td>1.267</td>
</tr>
<tr>
<td></td>
<td>(0.23)</td>
<td>(0.27)</td>
<td>(0.38)</td>
</tr>
<tr>
<td>Minimal range</td>
<td>0.873</td>
<td>0.894</td>
<td>0.960</td>
</tr>
<tr>
<td></td>
<td>(0.079)</td>
<td>(0.078)</td>
<td>(0.092)</td>
</tr>
<tr>
<td>Minimal connected winning (1st policy dimension)</td>
<td>2.015</td>
<td>1.897</td>
<td>1.247</td>
</tr>
<tr>
<td></td>
<td>(1.18)</td>
<td>(1.18)</td>
<td>(0.83)</td>
</tr>
<tr>
<td>Minimal connected winning (2nd policy dimension)</td>
<td>1.072</td>
<td>1.441</td>
<td>1.123</td>
</tr>
<tr>
<td></td>
<td>(0.81)</td>
<td>(1.11)</td>
<td>(0.86)</td>
</tr>
<tr>
<td>MCW2</td>
<td>0.793</td>
<td>0.578</td>
<td>0.854</td>
</tr>
<tr>
<td></td>
<td>(0.67)</td>
<td>(0.49)</td>
<td>(0.75)</td>
</tr>
<tr>
<td>Median legislator (1st policy dimension)</td>
<td>8.161***</td>
<td>7.428***</td>
<td>8.690***</td>
</tr>
<tr>
<td></td>
<td>(5.64)</td>
<td>(5.45)</td>
<td>(6.06)</td>
</tr>
<tr>
<td>Median legislator (1st policy dimension)</td>
<td>2.939</td>
<td>3.072</td>
<td>2.481</td>
</tr>
<tr>
<td></td>
<td>(2.61)</td>
<td>(2.91)</td>
<td>(2.37)</td>
</tr>
<tr>
<td>Core</td>
<td>0.284</td>
<td>0.301</td>
<td>0.343</td>
</tr>
<tr>
<td></td>
<td>(0.32)</td>
<td>(0.37)</td>
<td>(0.42)</td>
</tr>
<tr>
<td>Incumbent coalition</td>
<td>9.100***</td>
<td>8.304***</td>
<td>6.915***</td>
</tr>
<tr>
<td></td>
<td>(3.63)</td>
<td>(3.26)</td>
<td>(2.53)</td>
</tr>
<tr>
<td>Crosscutting coalition</td>
<td>0.435**</td>
<td>0.396***</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(0.15)</td>
<td>(0.13)</td>
<td></td>
</tr>
<tr>
<td>Innovative coalition</td>
<td>0.159***</td>
<td></td>
<td>0.085</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Observations</td>
<td>1606</td>
<td>1606</td>
<td>1606</td>
</tr>
<tr>
<td>McFadden R-square</td>
<td>0.502</td>
<td>0.516</td>
<td>0.551</td>
</tr>
<tr>
<td>Log Pseudolikelihood</td>
<td>-102.19</td>
<td>-99.45</td>
<td>-92.21</td>
</tr>
<tr>
<td>Average value for IIA assumption</td>
<td>0.70</td>
<td>0.85</td>
<td>0.86</td>
</tr>
</tbody>
</table>

Robust standard errors in parentheses. Coefficients are odds ratios.
*** p<0.01, ** p<0.05, * p<0.1

This pattern persists when we account for multilevel effects. Model 8 in Table 2 introduces a new variable that takes the value “1” if the coalition combination in question is
cross-cutting the government-opposition alignment at the national level and “0” otherwise. As expected, cross-cutting combinations are less likely to form. Like in the previous model, the second policy dimension bears no significant effects.

Finally, Model 9 complements the set of explanatory factors by a variable grasping whether the coalition combination in question is based on an innovative formula. To recall, a potential government is counted as innovative if it contains a combination of parties that has never been tried before at either the regional or the national level. This factor acts in the expected direction – innovative coalitions are less likely to form. Compared to the previous models, Model 9 is the best-performing in terms of model fit. As regards the significance of individual variable effects, it fares less well. From the office-policy set the only items showing significant effects are the number of parties (in the wrong direction though) and the inclusion of the party of the median legislator on the left-right dimension. On the contrary, incumbency status and whether the coalition is cross-cutting and innovative maintain their previous performance.

How can one evaluate these results of this statistical analysis? Many of them confirm the theoretical expectations and the previous findings on coalition formation in national contexts: coalitions are more likely to form if they are minimal winning, if they contain the party of the median legislator on the left-right dimension and if they are the incumbent government. Very importantly for the multilevel component of our theory, parties do seem to have better odds to form a government if they follow a consistent coalition strategy across levels, that is, if they are respecting the government-opposition alignment in national parliament. Finally, it appears that not only the immediate governing-together experience as expressed by the incumbency variable matters, but that a complete lack of previous experience of the parties in the combination governing together at the other level or in other regions lowers the odds of the combination to become the real government.

Most of this is good news. The consistent lack of influence of the second policy dimension is however worrisome as it runs against our assumption about the importance of policy space multidimensionality. When the sample is split and the two country groups are analyzed separately a similar picture emerges (see Ştefuriuc, 2008). Given the fact that the territorial dimension of party competition is active in only four of the seventeen Spanish

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As an example, if the national government is formed by parties A and B and the national opposition by parties D and C, the cross-cutting possibilities would be AD, AC, BD, BC, while AB, DC and each of the single party A, B, C, D potential government would not be cross-cutting. This operationalization is straightforward when party systems are similar at the two levels. If in addition to the ABCD set of parties, a regional parliament also features a fifth party, say E, which is not present at the national level, none of the combinations containing this party are coded as cross-cutting.
regions, the N becomes too small to run a meaningful analysis on the Spanish subsample. But even in the German case, when controlling for office variables, the policy variables related to the first dimension and incumbency, the second policy dimension does not have any significant effects (Ştefuriuc, 2008).

If it weren’t for the low-N problem in the case of Spain which is likely to bias the results in the pooled dataset, one could conclude that the second policy dimension does not play a strong role in regional government formation, all else being equal. However, such a conclusion contradicts common knowledge about the crucial importance of territorial issues in regions such as Galicia, the Basque Country, Catalonia or Navarre. Before a series of new governments form and more data becomes available (also for meaningful subsample analyses), the role of the second dimension in determining coalition outcomes might be better grasped by a qualitative analysis. This will be provided in the next section.

Case studies

The purpose of this in-depth analysis of selected cases is to verify, refine and possibly improve the theoretical and empirical understanding of coalition formation in multilevel settings proposed so far. Thus, on the one hand, the case studies aim at verifying the causal mechanism (“process verification”) underlying the explanatory models. For this purpose one needs to select cases that are on the regression curve (Bennett, 2002; Lieberman, 2005; Bäck and Dumont, 2007). On the other hand, this process-tracing aims at discovering new variables that have the potential to systematically explain coalition formation in multilevel settings. For this purpose, one needs to consider cases that are poorly predicted by existing models, falling off the regression curve (Bennett, 2002; Lieberman, 2005; Bäck and Dumont, 2007).

The case selection is based on the predicted probabilities attached to Model 9 in the previous section (Bäck and Dumont, 2007). This was the best performing model in our series. The downside of using this model is that it excludes from the estimation all the regional governments in Spain for which there is no data on the territorial dimension of party competition. Nevertheless, we may only inspect further on the performance of the variables pertaining to this dimension if we look at those cases in which it is active.

Based on the distribution of governments that actually formed with respect to the maximum predicted probability in their respective opportunity sets, the paper will further investigate two cases of government formation: the PSC-ERC-ICV government formed in Catalonia in 2003 and not predicted by the model and the SPD-Linke government formed in
Berlin in 2006, which was predicted by the model. Obviously, one might have selected a different pair of cases from the dataset. My selection attempted to ensure some variation on those key variables that I would like to explore more in depth after the statistical analysis: the role of the second policy dimension and that of the correspondence of coalition composition across levels of government.  

**a. Catalonia – PSC-ERC-ICV/EUiA**

The regional elections of 2003 in Catalonia opened three viable coalition possibilities - a coalition between the Catalan Socialist Party (Partit dels Socialistes de Catalunya – PSC) and the moderate nationalist party Convergence and Union (Convergència i Unió – CiU), a coalition between the two nationalist parties, CiU and the left-wing independentist Republican Left of Catalonia (Esquerra Republicana de Catalunya – ERC), and the three-party coalition that actually formed, between the PSC, ERC and the small Initiative for Catalonia Greens/United and Alternative Left (Iniciativa per Catalunya Verds/Esquerra Unida i Alternativa – ICV/EUiA).

The first of these options was quickly discarded by the PSC. This is the combination that our model predicts, however. It would have been based on a minimum winning formula, included only two parties and contained the party of the median legislator on both policy dimensions. This however was not the incumbent coalition: before the elections the CiU was governing alone in minority with the legislative support of the Popular Party/Partido Popular (PP). But it was not crosscutting either, as the PP, the party in national government enjoyed a comfortable majority for governing alone at that time. Finally, this combination was not innovative either – the CiU and the Socialists had been exchanging parliamentary support for one another at both the national and the regional level between 1993-1996 and 1995-1996 respectively.

In contrast, the government that formed and that our model failed to predict included three instead of two parties and the party of the median legislator on just one policy dimension (the left-right). It was also a combination with no experience of governing together at any level (except the local one). It is therefore interesting to explore the strategic choices of the parties involved.

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As the careful reader will observe, this discussion is limited to referring back to only the last two of the four assumptions revisited in the theoretical section. Due to space limitations, it will not cover the issue of treating parties as non-unitary actors, nor that of assessing how party goals vary across levels. For a full assessment of the four assumptions in light of empirical evidence see Ştefuriuc (2008).
For the Catalan Socialists, the calculations were simple, despite the fact that the alliance with the ERC, a radical nationalist party, attracted the opprobrium of other regional leaders in the Socialist federations. The CiU had been governing Catalonia for the past 23 years. The PSC had been in opposition for the same amount of time. This was the party’s first opportunity to provide government alternation and displace the CiU from power. Governing with the CiU would have come with the advantages of office, but would have denied the PSC the image of leading an alternative to CiU’s dominant position in Catalan politics. Furthermore, a PSC-CiU coalition would in fact have been a CiU-PSC coalition, as the nationalists had obtained 4 seats more than the Socialists in the 2003 elections. In these conditions, the PSC would not have been able to claim the government’s leadership and would have had to content itself with fewer portfolios.

But in this formation opportunity it was the ERC that took the lion’s share. It maintained parallel negotiations with both the CiU and the PSC for several weeks after the elections. Its final choice was strategically motivated by several reasons, as one ERC interviewee explained: (1) as a left-wing nationalist party, the ERC was ideologically closer to the PSC and the ICV than to the CiU on the left-right axis. More importantly, as the interviewee emphasized, this was the only majority coalition formula that combined proximity on both policy dimensions, which was a determinant factor (see Graph 1); (2) on the medium run, the party’s electoral strategists estimated that by forging a left-wing (rather than a nationalist coalition), the ERC could strengthen its left-wing profile and expand its electoral support among Socialist voters; (3) finally, and most importantly, the ERC assessed that its primary policy goal, namely the reform of the statute of autonomy for Catalonia, which needed the approval of a large majority in the Catalan parliament, was going to be easier with the socialists in government rather than in opposition. As a nationalist party, the CiU in opposition was not going to be able to oppose the reform by default, which was not necessarily guaranteed with the PSC in opposition.

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23 Interview with ERC politician, 26/05/2006.
This is how the PSC-ERC-ICV/EUiA coalition was formed\(^{24}\). Although this coalition’s top priority was to reform Catalonia’s autonomy statute, this was clearly not possible at the outset given the little weight the three parties could exercise at the national level in the context of a PP majority. This reform had been blocked so far by a complicated situation of incongruent parliamentary majorities across levels. During the 1996-2000 period, when the PP was governing in minority at the national level, it relied among others on the parliamentary support of the CiU. In 1999 the CiU won again only a minority of seats in the Catalan parliament and called for a return of the support on behalf of the Catalan PP. One of the conditions the PP imposed for granting this support was a promise on the part of the CiU to exclude the autonomy statute reform from the governmental agenda.

When the new Catalan government took office in December 2003, the PP was still holding a comfortable majority in the Spanish parliament, which meant that even if the

\(^{24}\) The third party in the combination, the ICV/EUiA stated from the beginning that the only coalition option it considered was that with the PSC and ERC.
Catalan parliament successfully adopted the bill, the reform would get blocked at the next step in its ratification, which required approval by the Spanish national parliament.

In 2004, the PSOE won the Spanish elections but did not secure a majority in the Spanish parliament. The ERC became then the key party in the investiture vote of a Socialist minority government. It could thus condition its parliamentary support on a firm commitment on behalf of Rodríguez Zapatero, the new Spanish prime-minister, to ease the adoption of the new statute of autonomy for Catalonia.

However, once the statute reform bill passed for approval from the Catalan to the Spanish parliament, it provoked a major division within the national Socialist party federation. Internal party support was extremely difficult to forge on two major issues: the definition of Catalonia as a “nation,” which was a non-negotiable demand placed on the table by the powerful ERC, and the new financial system that was to create asymmetrical advantages for Catalonia. The first item was largely symbolic and as such could be mobilized by the PP in opposition, which accused Zapatero of ‘balkanizing’ Spain. But some notable Socialist leaders also argued that calling Catalonia a nation was not constitutional, as the Spanish constitution recognizes the Spanish nation and several historical nationalities. On the second issue, Socialist leaders of solidarity-benefiting regions such as Extremadura and Andalusia claimed that the new fiscal advantages of Catalonia were violating the principle of territorial solidarity enshrined in the Spanish constitution.25

Not only did this severe internal tension in the PSOE put the reform to a new standstill, but it also created an unfavourable image for the Socialists as a weak and divided party. The solution adopted by the Spanish prime-minister Rodríguez Zapatero was to implicitly break the agreement with the ERC, shifting it to a new coalition with the CiU, after this latter had agreed on moderating the Catalan demands on both issues.

The immediate consequence of this shift at the centre was the termination of the coalition government in Catalonia. The ERC no longer felt committed to a text that it believed to depart radically from the original proposal passed in the Catalan parliament. It chose to campaign for a rejection of the text in the Catalan referendum on the new Statute as adopted by the Spanish parliament, which was the final approval stage for the reform. With two coalition partners supporting the final reform text and one against it, the government broke before the end of the legislative term and early elections were called.

25 The Spanish constitution states that “the state should guarantee the effective application of the solidarity principle… so that differences between their statutes of autonomy may in no case imply economic or social privileges.” (Moreno, 2001: 99).
However, once the referendum passed in June and the early elections were held in November 2006, the three parties decided to renew their coalition agreement. Their main motivations were to keep governing and have the implementation of the new Statute in their own hands rather than pass it to the CiU. Familiarity also undoubtedly played a role, as did the fact that the policy agreement did not have to be renegotiated, keeping thus transaction costs to a minimum. This automatically meant a re-shifting of the relations at national level. The CiU withdrew its support for Zapatero’s government at the time of the 2007 budget bill and the ERC offered again its own support, reinstating the previous coalition pattern.\(^{26}\)

The main purpose of this somewhat lengthy description of the highly interconnected dynamic between the two levels of government is to bring into discussion the concept of coalition congruence. In the previous section, we took on board the argument that whether a regional coalition combination overlaps or not with the national government of the day is not that important. What matters – and the statistical analysis appears to support this strongly – is that the combination does not crosscut the government-opposition alignment at the national level.

This process-tracing of government formation in Catalonia sheds some doubt on the validity of this argument. If a regional coalition combination is not cross-cutting, it may have better chances to form. Nevertheless, when it comes to its policy making capacities and its chances to survive in office, fully fledged congruence appears to be a crucial element. When the policy making process is intertwined across levels and intergovernmental cooperation is necessary for decision-making, having the same political colour becomes very important (see also Bolleyer, 2006; Ştefuriuc, 2009a).\(^{27}\)

This case description also suggests that the role of the territorial policy dimension may be underestimated by the statistical analysis. Although this coalition was primarily cast in terms of a “left-wing coalition”, all interviewees made it clear that it was their parties’ proximity on both policy dimensions that explained their preference for this combination.

\(^{26}\) Following national elections held in March 2008, the incumbent governing party maintained itself in office, albeit again in a minority situation. The seat distribution made it impossible to continue the preferential alliance with ERC, as this latter became an insignificant player in the Spanish parliament. Talks were instead held with the CiU which holds ten seats and the Basque Nationalist Party (Partido Nacionalista Vasco – PNV) which holds six seats. Ultimately however, no definitive agreement was struck with any individual party. The government is negotiating parliamentary support on an issue-by-issue basis with the opposition parties in the parliament.

\(^{27}\) One may wonder why the models in the previous section are not supplemented by one that includes the coalition’s congruent rather than cross-cutting status in the analysis. This is not done here due to space limitations. Nevertheless, arriving to a common denominator in operationalizing coalition congruence in Spain and Germany is very problematic. For a discussion see Ştefuriuc (2008).
This claim is supported by the evidence related to the adoption of the new autonomy statute which pertains to the territorial politics dimension.

b. Berlin: SPD-Linke

As predicted by our model, the incumbent parties decided to renew their coalition agreement following the 2006 elections in the Land of Berlin. During its electoral campaign, the Social Democratic Party (Sozialdemokratische Partei Deutschlands - SPD) explicitly excluded all other options and committed to form a government with either the Left Party (Linke) or the Greens (Die Grünen - GRUE), depending on electoral results. By a strange coincidence, these two options came out of elections with the exact same parliamentary size: the Greens grew from 14 to 23 seats and the Linke lost heavily, reaching only 23 from the 33 seats it had held previously. Both options would have given the governing formula the same narrow majority of only 2 seats above the winning margin.

According to the party policy positions as reflected in the party manifestoes, this is a minimal disconnected winning coalition – on the economic dimension the Green party is placed in between the SPD and the Linke and on the social dimension the two coalition partners are separated by the Liberal Party (FDP) (see Graph 2). But for the coalition formateur (SPD) which is also the party containing the median legislator, what appears to have mattered most was the previous experience in government with the Linke’s predecessor, the Party of Democratic Socialism (Partei Demokratische Sozialismus – PDS). According to an SPD interviewee, the Social-Democrats were confronted with an unambiguous choice: to continue a coalition on a narrow parliamentary base with a partner they were familiar with, or to try out a new agreement on the same narrow parliamentary base with a new partner. In addition to this, although Graph 2 fails to capture this, there were some substantial policy disagreements between the SPD and the Greens on specific key policy issues, as the Greens advocated the privatization of certain public sector services as a solution for the most urgent problem of Berlin – budget consolidation. This strategy was contrary to what the SPD and the Linke jointly stood for, that was maintenance of public ownership in conditions of better management.

28 Interview with SPD political advisor, 18/10/2007.
29 Interview with SPD politician, 19/10/2007. Also note that the SPD had an uneasy collaboration in a coalition government with the Green Party (back then called Berlin Alternative List/Berlin Alternative Liste) before the German unification (see Lees, 2005).
30 Interview with SPD political advisor, 18/10/2007.
For the Linke however, the decision of whether to continue in government or shift back to opposition status was not an easy one. The party lost support heavily in the 2006 elections. It must be noted that the SPD-Linke government took some hard decisions related to budget consolidation between 2001 and 2006, which put priority on rigid saving and reducing debt rather than spending for public services and which were therefore unpopular with a traditional left-wing electorate. The election results thus generated a major debate in the party over the utility of continuing in government. The regional party leadership in Berlin party was also put under pressure by the federal leadership of the Linke to carefully consider its choices. Although prior to 2006 the federal party leadership of the (then) PDS was supportive of the coalition with the SPD (see below), the recent fusion between the PDS and the WASG led by the former-SPD politician Oskar Lafontaine, added lots of ambiguity to the federal stance on this matter. The PDS-nucleus of the federal party leadership was both
respectful of *Land*-level autonomy in coalition matters and in principle supportive of this particular coalition formula while the WASG faction, as a splinter from the SPD, was against a coalition with the Social-Democrats\textsuperscript{31}.

The Berlin Linke party leadership had to make substantial efforts to convince the party members that continuing in government was worthwhile. According to one interviewee, these efforts were concentrated on three main arguments: that the 2006 electoral results were exceptional and the ones in 2001 rather normal\textsuperscript{32}, that it was necessary to stay in government to avoid building the image of a party that is only good at criticizing but does not take the risk to prove that it can also govern and that an SPD-Green government would have necessarily shifted *Land*-level policy-making to the right. Furthermore, with a better financial situation than it was the case in 2001, the Linke expected to be able to shift the focus from a rigid public saving course to spending on social welfare policies.\textsuperscript{33}

The interviews thus confirm the explanatory power of incumbency for government formation. How about the multilevel dynamic generated by the coalition’s crosscutting status? The SPD-Linke coalition formed in the context in which the SPD was sharing government with the Christian-Democratic Union (*Christlich Demokratische Union Deutschlands* – *CDU*) at the federal level. In this context, the only non-crosscutting options in Berlin would have been unviable combinations containing only the small parties: the Linke, Greens and the FDP. But this context is rather special – the federal grand coalition did not come about as a favourite choice of the parties, but rather as an unwelcome necessity. The same pragmatic justification applied when the grand coalition formula it was replicated at the *Land*-level, such as it was the case in Mecklenburg – West Pommerania in 2006 or Schleswig Holstein in 2005. In forming regional governments, both the CDU and the SPD deviated from the federal formula whenever they had a viable alternative.

This suggests that, as a general rule, striking alliances that are not crosscutting the federal-opposition alignment at the federal level carries little strategic weight for regional party leaders making coalition choices. The federal party leaders are actually the ones inclined

\textsuperscript{31} Note however that this was only valid for the federal level, as the Berlin WASG did not fuse with the Berlin PDS and stood elections under its own label in 2006.

\textsuperscript{32} In 2001 the PDS had an unusually high score – the campaign took place after the precipitated fall of a CDU-SPD government that followed a bank scandal tarnishing the reputation of the CDU mainly, but also of the SPD as a governing partner. The federal PDS leader Gregor Gysi, a politician of great public appeal, was the leading candidate in the 2001 *Land* elections and this brought the PDS considerable levels of voter support (Koß and Hough, 2006). The 13% the party obtained in 2006 was, according to a leading figure in the Berlin Linke that I interviewed, much closer to the real support basis of the party than the 22% it had scored five years earlier (Interview with Linke politician, 19/10/2007).

\textsuperscript{33} Interview with Linke politician, 19/10/2007.
to have stronger preferences for the formation of non-crosscutting coalitions. But they are unlikely to successfully put pressure on their regional colleagues to enter non-crosscutting coalitions unless the party is in federal government and unless the federal government risks loosing its majority in the Bundesrat.

Interviewees suggested that at times, allying with different partners at different level may even be beneficial for the party’s electoral fortunes as federal factors play a disproportionately strong role in regional elections. The strategic value of congruent coalitions depends thus on how well the federal government is doing in public opinion. If the federal government is riding high, parties in a congruent Land coalition will also take advantage. If it is not, then congruence is more likely to be a liability. Incongruent coalitions allow Land parties to develop a differentiated profile that can be expected to counteract to a certain extent the negative consequences that federal political dynamic may exert at the regional level.

How about the second policy dimension? The statistical analysis showed no support for its influence on coalition outcomes. Like in the Spanish case, the interviews reveal a different story. The left-right dimension was prominent in coalition talks. Economics and finance dominated agenda, but interviewees from both parties pointed to the importance of one policy item pertaining rather to the social dimension which was equally high on the negotiation agenda. That was the reform of the school system. Obviously, one cannot draw far reaching generalization based on this one case. The overall salience of the social dimension relative to other factors that matter for coalition formation cannot be estimated by looking at one case only. Nevertheless, this discussion raises a note of awareness about the explanatory limits of our statistical models, which systematically failed to estimate significant effects for variables related to the second policy dimension in both Germany and Spain.

Concluding remarks
This article started from the claim that existing coalition theories need to be revised before they can be applied to the formation of sub-national governments in multilevel settings. In such settings, political parties operate simultaneously in different party systems, hold different weights therein and need to strike deals with possibly different partners at different levels. All these add to the complexity of the coalition game and motivate a re-thinking of the available
theoretical lens that can be used for exploring government formation in these particular settings.

The article revised four main assumptions of classical coalition theories. It was argued here that in multilevel settings parties cannot be assumed to behave as unitary actors and that the goals they pursue might vary across levels at any given time. It was also argued that coalition formation at the sub-national level cannot be analyzed in isolation, but that the actors involved take part in a two-level game. Their bargaining power is also cumulative across levels. The last argument was that we need to conceive of the policy space as being bi-dimensional, but also be able to allow for variation as not all parliamentary contexts have a second salient dimension of party competition.

Following these revisions, a selection of hypotheses drawn from the main office- and policy-seeking coalition formation theories were tested against data about regional government formation in Spain and Germany. Several classical propositions appeared to perform rather well on this dataset: minimal winning coalitions are more likely to form than non-minimal winning combinations, incumbent parties have better chances to renew their coalition deal when a new coalition opportunity arises and the coalition combinations containing the party of the median legislator on the left-right dimension are more likely to form. Furthermore, coalitions that are cutting across the government-opposition alignment at the national/federal level appear to be less likely to form, and so are innovative coalition combinations.

The statistical analysis shows no support for the argument that the second policy dimension (i.e. territorial politics in the case of Spain and the social dimension in the case of Germany) is structuring regional government formation in these two countries. As this finding is rather running against existing knowledge about politics in the two countries, the selected case studies that complement the statistical analysis attempt to verify it. The qualitative evidence from the Spanish case (the PSC-ERC-ICV/EUiA government formed in 2003 in Catalonia) suggests that the model clearly underestimates the importance of the territorial policy dimension for the actors involved in the formation process. Throughout 2003-2006, the policy focus of the Catalan government was almost entirely dominated by the statute reform process. It was the territorial aspect of politics that fuelled serious conflict inside the federal party organization to the point of forcing the federal government to change legislative coalition partners, which translated in an immediate termination of the Catalan coalition deal.

In the city-state of Berlin, the social dimension also appears to have been more important for the coalition deal than the statistical model suggests. The same finding thus
appears with clarity in both the case predicted and the case unpredicted by the theory. This suggests that future research cannot easily dismiss the second dimension as irrelevant on the basis of the first statistical results.

One further question raised by the case studies is whether focusing on a regional coalitions crosscutting status with respect to the national government-opposition alignment is actually a good variable for grasping the multilevel dynamic. The advantage of this conceptualization is that it can be easily applied across the two countries. But the Catalan case shows that when it refers to a combination of parties that are in opposition at the national level, a regional government’s non-crosscutting status has no strategic value for these parties. Instead, changes towards or from a perfect overlap between the government composition across the two levels can make and unmake regional governments in a country like Spain, where the regions are more dependent on the center for decision-making (i.e. when the grey zone of shared competencies is large, such as is the case in Spain) than it is the case in Germany, where it is generally the federal government that is more dependent on the regions for decision-making, as Länder have a veto on a substantial part of federal legislation.

Even in Germany, a crosscutting coalition may not be problematic at all unless it is pivotal for shifting the majority the federal government can rely on in the Bundesrat. This is therefore an aspect whose strategic potential is limited to only a handful of cases of regional coalition formation – possibly none during the life of a federal government. Although the statistical analysis showed clear effects of this variable, the causal mechanism behind its relationship to the coalition outcome is not verified by the qualitative evidence. This brief assessment suggests that institutional factors pertaining to the nature of the federal arrangement are important intervening variables (see Ştefuriuc, 2009b).

All in all, this research brings support to the claim that mixed-methods research designs are better fit to contribute to advances in the study of coalition formation than are purely quantitative approaches or studies relying on thick descriptions only (Bäck, 2003; Bäck and Dumont, 2007). Especially for tapping into such a complex process as coalition formation in multilevel settings, combining large-N and small-N research strategies will prove more fruitful than applying either of the two strategies on their own.
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