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Electoral Systems and Intra-Party Candidate Selection Processes: Influences on Legislators' Behavior

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Electoral Systems and Intra-Party Candidate Selection Processes: Influences on Legislators' Behavior

by

Yael Shomer

A dissertation presented to the
Graduate School of Arts and Sciences
of Washington University in
partial fulfillment of the
requirements for the degree
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ABSTRACT OF THE DISSERTATION

Electoral Systems and Intra-party Candidate Selection Processes: Influences on

Legislators' Behavior

by

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Doctor of Philosophy in Political Science

Washington University in St. Louis, 2010

Brian F. Crisp, Chair

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How legislators behave and how cohesively parties act are influenced, to a great extent, by the institutional environment within which they operate. While most research has regarded each institution separately, this dissertation project seeks to theorize and to empirically examine the complex institutional context that affects legislators' behavior and representation styles. I specifically shed light on how electoral systems and intra-party candidate selection processes, separately and in combination, influence how much legislators emphasize their unique individualistic behaviors at the expense of their parties' collective unified reputations. I argue that electoral systems and candidate selection procedures conditionally structure the incentives and institutional environment within which a legislator operates.

Chapter 2 presents a theoretical/conceptual distinction between electoral systems and intra-party candidate selection processes and critiques the current literature that usually amalgamates them into a single factor. I further justify this distinction by empirically showing the lack of a strong association between the two institutions. Chapter 3 presents my theory concerning the distinct and combined conditional effect of electoral systems and selection processes on legislators' behavior. I support my

assertions using party-level models that use Rice cohesion scores and Weighted Rice cohesion scores as outcome variables. Chapter 4 tests my theory using individual level analysis which uses the ideological distance of a legislator from the median position of his or her party as a measure of behavior.

To this end, I have collected a number of unique data sets that include information about parties' candidate selection processes, parties' cohesion measures, and individual legislators' ideological distances. Using these original data sets, I can support my theory concerning the conditional combined effect of electoral systems and intra-party candidate selection processes on legislators' behavior. The incentives and constraints legislators face are more convoluted than scholars previously assumed.

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taught me to overcome any obstacle in life. She enabled every dream of mine and supported my work in so many ways. Her encouragement, unconditional help, and support have not gone unnoticed. I am blessed and honored to have such a mother and can only hope I make her proud at least half as much as she makes me.

This dissertation is dedicated to the memory of my father, Asher Shomer.

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Chapter 1

Introduction

If our parties introduced such a system (open primaries, Y.S), the candidates will realise that they must serve their constituents. It is not sufficient to be the darling of the party's central leadership. It is the grassroots members who selected them, not some bigwigs from central office.

Wan Saiful Wan Jan
2009.
Empower Party Members to Select Candidates
The Malaysian Insider, 2009.
<http://www.themalaysianinsider.com/index.php/opinion/wan-saiful-wan-jan/47757-empower-party-members-to-select-candidates->
2010, April. 15.

We've got to show that we are a disciplined party getting on with the work of government.

Gordon Brown
2009.
Brown appeals for party discipline
The Independent, 2009.
<http://www.independent.co.uk/news/uk/politics/brown-appeals-for-party-discipline-1761652.html>
2010, April. 15.

How legislators behave and how much they toe the party line to maintain a cohesive party record exemplifies the tension between representativeness and governability. On the one hand, columnists, voters, and political activists want to increase the link between constituents and their representatives. On the other hand, they want to increase governability and democratic stability. However, increasing representativeness might hamper governability. If legislators vote according to their constituents' preferences and disregard their parties' policy commitments, they hamper parties' abilities to implement policies and make it difficult for governments to fulfill their agenda.

In November 2005, United Kingdom Prime Minister Tony Blair's government was defeated, for the first time, on a vote to allow police to hold terrorist suspects for 90 days without charge. The Prime Minister strongly supported the police's demand, but the government lost by a vote of 322 to 291. If the 49 Labour MPs, members of Blair's own party, who rebelled had voted with the government, it would not have lost the vote. Michael Howard, the Conservative party leader, said that "The prime minister has shown he no longer carries his party with him-and that is not good for the country" (Tempest, Matthew. November 9, 2005. Blair defeated on terror bill. The Guardian <`http://www.guardian.co.uk/politics/2005/nov/09/uksecurity.terrorism`>). In a similar vein, in February 2007 the Italian government was divided over the Afghan war and its US military ties. The center-left government lost a crucial parliamentary vote to extend the Italian mission in Afghanistan. As a result of the failure of the government to reach the necessary majority in the Italian Senate the opposition forced Prime Minister Prodi to resign.

Previous research has identified many benefits of cohesive, disciplined parties in government. Scholars have argued that such parties are an essential pillar in the Re-

sponsible Party Government doctrine (Ranney, 1954). Many have said that they are essential for governmental survivability in parliamentary systems (Diermeier and Fedderson, 1998; Giannetti and Benoit, 2009; Groennings, 1970; Huber, 1996; Saalfeld, 2009). Others have held that high discipline increases government efficiency and decreases common pool resource problems (Agh, 1999; Barber, 1966; Diaz-Cayeros, McElwain, Romero and Siewierski, 2003; Hallerberg and Marier, 2004; Tavits, 2009). Additionally, some speculate that cohesive parties decrease transaction costs and increase policy-making capabilities (Aldrich, 1995; Cox and McCubbins, 1993, 2005; Giannetti and Benoit, 2009; Ozbudum, 1970; Rohde, 1991). Existing literature postulates that disciplined parties contribute to electoral accountability (Heidar and Koole, 2000; Katz, 1987; Sartori, 1976) and enhance their electoral performance (Aldrich, 1995; Bawn, Cox and Rosenbluth, 1999; Cox and Rosenbluth, 1995; Cox and McCubbins, 1993; Owens, 2003; Strom, 1990). And lastly, as the example above indicates, party cohesion, or lack thereof, influences the policies adopted. Indeed Tavits argued that "Given the high stakes, legislative behavior and its determinants are of intrinsic interest"(Tavits, 2009, 794).

Despite the importance of discipline and cohesion, or perhaps in light of it, most theories on elections, parties, and coalitions regard them as a unitary actor not examining intra-party politics and disagreement. For example, (Downs, 1957) treated parties as unitary actors, in his theory about party competition. Likewise, most theories on coalition formation and duration regard parties as unitary actors with singular ideal points. Thus, for the most part, Schofield and Sened (2006) treat parties as a black box[1]. In the pre-electoral stage of their theory, in which "Parties position

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[1]The authors do examine the party leader's valance, but they do not examine how variation in the degree of intra-party cohesion affects the predictions of their model.

themselves in the relevant policy space by choosing a leader and declaring a manifesto (7)", the authors fail to consider how safe it is to make this unitary actor assumption[2].

However, when one fails to account for intra-party heterogeneity and considers all countries as amenable to the unitary actor assumption, one fails to consider how intra-party conflict influences other stages in the mega game articulated by Schofield and Sened (2006, 7). For example, in the electoral stage, when voters decide for whom to vote, how would the intra-party candidate selection procedures used by parties influence the voters' decisions (Hazan and Voerman, 2006)? How much would the party's coherent brand name influence voters (Cox and Rosenbluth, 1995; Giannetti and Benoit, 2009)? Similarly, in the coalition formation stage of the mega game, taking into account intra-party conflict and heterogeneity might alter the predictions of which parties will be invited to join a coalition (Back, 2009; Giannetti and Benoit, 2009; Saalfeld, 2009). Moreover, considering intra-party heterogeneity might alter the position of the core and the uncovered set—the solution concepts used in many coalition theories.

Lastly, would intra-party heterogeneity influence the last stage of the game, the policy implementation stage? As the examples above illustrated, how legislators behave and how much they toe their parties' lines is an essential step in understanding policy adoption. Intra-party conflict prevented United States President Bill Clinton from passing a health care reform (Rushefsky and Patel, 1997) in 1994, inhibited Prime Minister Blair from implementing a Terrorism Bill (<`http://www.guardian.co.uk/politics/2005/nov/09/uksecurity.terrorism`>), defeated United Kingdom

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[2]Bianco, Jeliazkov and Sened (2004) used individual legislators' ideal point in calculating the uncovered set.

Prime Minister Gordon Brown's policy of restricting the right of many former Gurkhas to settle in the U.K. (<http://news.bbc.co.uk/2/hi/8023882.stm>), and stopped the Israeli government from passing a major reform of the Israel Lands Administration (<http://www.haaretz.com/hasen/spages/1103112.html>).

This dissertation adds to the collective knowledge by shedding light on the institutional arrangements that shape legislators' behavior and, as a consequence, how much intra-party heterogeneity is apparent. Indeed, the institutional framework within which legislators operate governs, to a large extent, how legislators perceive their representational styles and how they behave. As legislators seek to maximize their probability of getting (re)elected, they adhere to the incentives and constraints that institutions produce. While certain institutional arrangements encourage legislators to behave in a party-centered manner and to emphasize the collective unified record of their party, others do the opposite and encourage legislators to emphasize their unique personal reputation by breaking from party's line.

Electoral systems and intra-party candidate selection processes (i.e., the manner by which a party decides who can represent it on its ballot) govern, to a great extent, whether legislators face incentives to behave in a party- or individual-centered manner. Electoral and selection competition "are especially important because they define linkage between the legislature and the society" (Brady and Bullock, 1985, 141). To a large extent, legislators' behavior is a function of the electoral rules that govern how legislators are (re)elected (Bowler, Farrell and Katz, 1999; Carey and Shugart, 1995; Gallagher and Marsh, 1988; Hazan, 2000; Mainwaring and Shugart, 1997). Likewise, intra-party candidate selection processes are also theorized to influence legislators' behavior (Giannetti and Benoit, 2009; Pennings and Hazan, 2001;

Rahat and Hazan, 2001). However, the majority of the literature on elections and selections fails to consider these two institutions as separate entities that might conditionally influence how legislators' behave. This dissertation distinguishes between elections and selections, theoretically and empirically, and examines their separate and combined effect on legislators' behavior. I add to our theoretical and empirical understanding of legislators' behavior and to our understanding of factors that lead to government and democratic stability, electoral accountability, and certain policy adoption by illuminating and emphasizing the need to comprehend the complex institutional environment within which legislators operate.

While much of the theoretical work and the empirical analysis on institutional arrangements and their influences on behavior and other policy-related outcomes combines electoral systems' and candidate selections' effects or treats their combined effect as additive, I propose to differentiate between these two institutions and to theorize about their combined conditional effects for legislators' behavior and representational styles. Only by theorizing about the intricate institutional environment within which legislators operate can scholars understand the incentives and constraints that legislators face and, as a result, how they behave.

In Chapter 2 I argue that the first step in theorizing about the complex environment within which legislators operate is to differentiate between electoral systems and intra-party candidate selection processes. After presenting my proposed distinction between electoral systems and intra-party candidate selection procedures, I then examine the degree to which electoral systems and candidate selection processes are related to one another. To the degree to which electoral systems, and more specifically *Ballot Type* strongly determine the selection processes, one can safely use the

amalgamation prevalent in the literature. However, if selection processes vary within electoral systems, combining these two institutions might prove misleading.

To examine whether a strong relationship exists, I have collected an original dataset that contains candidate selection processes for 523 parties from 47 countries. Using this data and anecdotal evidence, I argue that electoral systems and intra-party candidate selection processes are not strongly related. More specifically, I show that selection processes vary independently of variation in the electoral systems.

In Chapter 3 I present my innovative theoretical argument concerning the conditional combined effect of electoral systems and intra-party candidate selection processes on legislators' behavior. I then use an original data set with 249 parties nested in 24 countries to test my hypotheses at the party level. Chapter 4 examines my theory at the individual level using a newly proposed measure of legislators behavior: the ideological distance of a legislator from the median position of his or her party. I find similar results to the one obtained in the party-level models of Chapter 3. Chapter 5 will conclude and provide suggestions for future research.

Chapter 2

Electoral Systems and Candidate Selections: Differences and Relationships

2.1 Introduction

Electoral systems have been one of the most studies institutions. Scholars have treated electoral systems as an independent variable, examining its influence on myriad characteristics of the political arena such as the party system (Cox, 1997; Duverger, 1954; Lijphart, 1994; Ordeshook and Shvetsova, 1994; Rae, 1971; Riker, 1982, 2003; Schofield and Sened, 2006; Taagepera and Shugart, 1989), legislators' behavior and legislators' relationships with constituents (Bawn and Thies, 2003; Carey, 2009; Carey and Shugart, 1995; Crisp, Escobar-Lemmon, Jones, Jones and Taylor-Robinson, 2004; Herron, 2002; Myerson, 1993; Powell, 2000), policy outcomes and spa-

tial locations (Austin-Smith and Banks, 1988; Cox, 1990; Downs, 1957; Persson and Tabellini, 2002; Schofield and Sened, 2006), and corruption (Chang, 2005; Chang and Golden, 2006; Persson and Tabellini, 2003; Persson, Tabellini and Trebbi, 2003). Additionally, scholars have examined electoral systems' origins and determinants (Boix, 1999; Colomer, 2004; Shvetsova, 2003) and the reasons for their alternation (Alexander, 2004; Bawn, 1993; Nohlen, 1984; Sakamoto, 1999; Shugart, 2001a).

Scholars have also studied intra-party candidate selection processes, that is, how legislators gain permission to use the party's banner, but to a much lesser extent than electoral systems. Scholars have examined the effects of candidate selection processes on legislators' behavior (Bowler, Farrell and Katz, 1999; Crisp et al., 2004; De-Luca, Jones and Tula, 2002; Faas, 2003; Hazan, 2000; Hazan and Rahat, 2000; Hix, 2004; Shomer, 2009; Sieberer, 2006) and on the representativeness of the party's list (Kernell, 2008). In addition, scholars have examined selection processes' determinants and the reasons for their change (Bille, 2001; Gallagher and Marsh, 1988; Katz, 2001; Lundell, 2004; Pennings and Hazan, 2001; Wu, 2001).

Often scholars have blurred the distinction between electoral systems and candidate selection processes when they have studied legislators' behavior or the influences on legislators' behavior, that is, what factors cause the legislators to either emphasize their personal reputation or the collective reputation of their parties. In one of the most influential articles on the theory of legislators' behavior Carey and Shugart (1995) hypothesized that four factors of electoral system, *Ballot, Pool, Vote* and *District Magnitude*, influence how legislators perceive their representation styles and how they cater to their constituents. In this influential article, and in the vast

majority of the theoretical and empirical work that followed it[1] Carey and Shugart (1995) amalgamated electoral systems and candidate-selection procedures, making candidate selection procedures as a partial component of the electoral system. Carey and Shugart's *Ballot* variable measures the degree to which party leaders control the access to and the rank on the party's ballot. While the electoral system partially defines this characteristic, such as in the case of Open-List Proportional Representation (OLPR) versus Closed-List Proportional Representation (CLPR), the internal procedures that parties adopt to select their lists/candidates also impacts it.

Amalgamating selections and elections into the same indicator does not account for the different levels at which electoral systems and candidate selection processes operate. Electoral systems are a country-level characteristic and usually do not vary within a specific country at a given point in time[2], while candidate selection procedures operate as a party-level characteristic. Indeed Hazan and Voerman (2006, 154) argued that "in any analysis of candidate selection methods, the unit of analysis is the single party in a particular legislature at a specific time". Thus, to the degree to which parties' selection procedures vary within a country, combining electoral systems with intra-party candidate selection processes does not account for intra-country, cross-party variation in selection processes. Moreover, amalgamating elections and selections does not allow scholars to examine the separate effects of selection procedures on legislators' behavior or allow the possibility that elections and selections might produce combined conflicting incentives for legislators. For example, when a

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[1]According to the Social Science Citation Index , by March 2010, the article has been cited 197 times in refereed journals .

[2]In Mixed Member systems, one can observe two types of electoral systems operating in a parallel or a compensatory manner.

party uses primaries in a CLPR electoral system, as was the case for the Israeli Labor party in 1996, its legislators are faced with conflicting incentives. The electoral system encourages party-centered behavior, but the selection process encourages legislators to emphasize their own unique reputations. Often, empirical analysis that stemmed from Carey and Shugart's seminal work completely neglected to account for candidate selection procedures separately, combining them as in Carey and Shugart's article (Carey, 2009; Chang and Golden, 2006; Hallerberg and Marier, 2004; Shugart, 2001b; Shugart, Valdini and Suominen, 2005).

An assumption that there is a strong correlation between the type of electoral system a country uses and the type of intra-party selection mechanism parties adopt underlies this amalgamation of elections and selections. However, the literature on the matter is scarce and provides contradictory conclusions. Yet, combining the influence of elections and selections in one indicator does not enable scholars to account for the correct level at which each institution operates and makes examining the existence of relationships between elections and selections unrealizable. In what follows, I differentiate theoretically and empirically between electoral systems and candidate selection procedures. Using this differentiation and a new data set of party-level candidate selection procedures, I then examine whether electoral systems influence how parties select their candidates. I conclude that the association between electoral systems and candidate selection procedures is weak and does not merit the combination of these two institutions.

2.2 Ballot Access Versus Ballot Type

While the vast majority of the literature that examined the effect of electoral systems on legislators' behavior amalgamated electoral systems and candidate selection processes[3], I propose differentiating between them. Since the literature's amalgamation stemmed from the definition of the *Ballot* variable in Carey and Shugart (1995), I differentiate between elections and selections by defining two new variables that relates to the original variable. I define selection processes as *Ballot Access* which differs from *Ballot Type*, an electoral system characteristic. This distinction enables me to address the controversy in the literature concerning the empirical relationships between electoral systems and intra-party candidate selection processes.

Ballot Type, an electoral system characteristic, measures the degree to which voters or party leaders control the ballot at the general election stage, or more precisely, how much voters can change the predetermined order of the party's banner on election day. *Ballot Type* differentiates between fixed ballots and those amenable for a change by the voters. Specifically, I distinguish between *Ballot Types* where voters cannot change the party's banner, called fixed ballots, and strong preferential ballots where voters must change the ballot order to signal their preferences, and where "preference votes are the sole basis on which individual legislators are chosen" (Karvonen, 2004, 207). An intermediate category, weak preferential, depicts *Ballot Types* where predetermined list order is important, but preferential vote can limit its effect. Weak preferential ballots may be found in countries that use electoral systems with preferential voting, but provide the voters with the option to "vote above the line"[4].

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[3]But see: Cross (2008); Hix (2004); Siavelis and Morgenstern (2008*a*).

[4]Voting for the party, as a shortcut, effectively accepting the parties' predetermined order.

In addition, I also classify countries with a high barrier for preferential voting, to alter the predetermined order of the ballot as having weak preferential *Ballot Types*. In other words, in these systems, voters can reorder the predetermined order of the list based on the preference vote each individual candidate received provided these preference votes have crossed a certain threshold and passed a certain barrier[5]. While fixed ballots encourage legislators to enhance their common party's reputation, strong preferential ballots encourage them to cultivate their personal reputations.

Ballot Access, on the other hand, captures the intra-party candidate selection processes used by parties to select their candidates. It is, in other words, how legislators "gain permission" to use the party's banner on election day[6]. Remember that "one of the most important functions of a political party is to nominate candidates for office"(Malcolm, 1973, 212). Hence, candidate selection processes are one of the most important features of political parties.

Ballot Access, or intra-party nomination procedures varies in degree of decentralization and in the selectorate that participate in the selection process (Rahat and Hazan, 2001). The selectorate measures who can participate in the selection procedure. It ranges from an inclusive pole where the entire electorate can select the candidates to an exclusive pole where a single party leader determines who gains permission to use the party's banner. The size of the selectorate determines the variation

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[5]Some scholars define these systems as flexible list systems (Crisp and Malecki, 2010; Farrell, 2001). Moreover, the level of the barrier for altering the predetermined order varies, in principle and in practice, across countries (Andeweg, 2005; Muller, 2005), but this simplified classification of *Ballot Type* ignores it.

[6]Intra-party candidate-selection processes <u>are not</u> legislative recruitment. The concept of legislative recruitment is broader and includes candidate selection processes (Hazan, 2006*a*; Norris, 1997).

of selection processes on this dimension, that is, their relative degree of inclusiveness. Inclusive candidate selection processes encourage legislators to emphasize their unique behavior and personal reputation as it increases the degree of intra-party competition.

I also classify *Ballot Access* according to its degree of decentralization. A centralized selection mechanism is one where "candidates are selected exclusively by a national party selectorate with no procedure that allows for territorial and/or functional representation" (Hazan, 2002, 114). On the other hand, in a decentralized selection procedure local party organizations solely make the selection (Malcolm, 1973; Ranney, 1965). Centralized candidate-selection processes should encourage party-centered incentives, while decentralized mechanisms might enhance the national-local divisions, and encourage legislators to enhance personal vote at the expanse of their national party, since often times, "what the central party sees to be in its interests can conflict with local choice"(Erickson and Carty, 1991, 334). Gallagher (1980) also emphasized the inherent conflict between the national and the local and argued that different groups at different levels have different ideas about who should represent the party.

I classify candidate selection processes on an index similar to Shomer (2009) in accordance to the degree to which they are hypothesized to create incentives for personal vote-seeking behavior[7]. While most literature on candidate selection procedures neglects to detect the separate effect of the selectorate and the decentralization[8] on

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[7]Whereas the index at Shomer (2009) differentiated further between those legislators selected via reserved seats and those who were not, I could not find such detailed data cross-nationally and therefore ignored this distinction in the dissertation.

[8]Figure 2.14 in the appendix presents the frequency of the selectorate, a three category variable, within each level of centralization, another three category variable. There is a clear relationship, though clearly not deterministically, between the degree of inclusiveness and that of de-centralization. However, only by using these two distinct variables and by creating categories from the combination

legislators' behavior (Crisp et al., 2004), I use the two criteria of selectorate and decentralization to produce an eight-point scale (see Figure 2.1). The lowest level was ascribed to the most exclusive and centralized selection mechanism: selection by national party leader(s). This selection procedures are hypothesized to encourage legislators to behave in a party-centered manner and toe the party's line the most. The next category is selection by national party delegates such as committee, party conference, and so on. While the level of decentralization remains similar to the first category, the selectorate of this selection process is more inclusive. The next two categories depict selection processes where local party leadership functions as the selectorate. In the third category, the decision is not final, as it is subject to the approval of the national party by veto or addition of candidates. The fourth category does not need such approval. These categories depict a more decentralized mechanism, compared to the first two categories and should hence encourage legislators to stray from the party line more often. Indeed, Gaines and Garrett (1993, 117) argued that compared to selection by a national party organ, members selected by the district party constituency, for example, "have to be wary that if they behave so as to alienate their constituency party—even if their actions are in line with the dictates of the parliamentary party leadership...—they will not be renominated." I argue that the third category, in which the national party leaders retain a certain degree of control and involvement in the process, will have more party discipline than the fourth category, in which no national party involvement is permitted. The fifth and sixth categories in my selection index depict selection processes in which the local party delegates, by committee, conference, or other means, select the candidates. However,

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of these variables, can one account for the different selection processes apparent in the data set. In addition, throughout the dissertation, I have ran some of the analysis on either, Bille (2001) classification of candidate selection processes, or using two separate variables, one for selectorate and one for decentralization. The results are similar to the ones obtained with my operationalization.

in the fifth category, the decision is subject to national party approval, but it is not in the sixth. While the level of decentralization remains similar to that in the third and fourth categories, the inclusiveness of the selectorate increases which should intensify legislators' incentives to break with their parties' lines. The last two categories classify candidates selected via primaries (open or closed). The decision might be subject to national party intervention in the seventh category, and it might not be in the eighth. Once again, I contend that legislators who were selected via primaries, in which party leaders maintained a degree of involvement will be less likely to dissent compared to legislators selected by primaries with no national level intervention[9].

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[9]See Figure 2.10 for the distribution of selection processes.

Figure 2.1: Selection Processes Index

Party Centered   Candidate Centered

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 ├──────┬──────┬──────┬──────┬──────┬──────┬──────┤
 1      2      3      4      5      6      7      8
```

Selection Index
1: national party leadership up to 10 selectors
2: national party delegates
3: local party leadership up to 10 selectors, subject to approval of the national party
4: local party leadership up to 10 selectors (at the local level)
5: local party delegates, subject to approval of the national party
6: local party delegates
7: primaries subject to approval of national party
8: primaries

Differentiating *Ballot Access* and *Ballot Type* effectively distinguishes how legislators gain permission to use a party's banner—selection processes—form electoral systems. It also enables each institution to operate in its appropriate level: electoral systems are a country-level characteristic while candidate selection processes are mostly a party-level factor. I can thus test whether reality supports the assumption of a strong correlation between selection processes and electoral systems. As I

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argued before, if there is no strong association between electoral systems and selection processes, combining the two institutions might be misleading. The following section examines the relationship between electoral systems and intra-party candidate selection processes. I first present the controversy in the literature. Using a large and new data-set of party level candidate selection processes with 523 parties from 47 countries as well as anecdotal evidence, I find support for the lack of a strong correlation between electoral systems and selection procedures.

2.3 The Relationships between Electoral Systems and Selection Processes

"The reasons why candidate selection methods vary are, on the whole, still wrapped in mystery".

Lundell (2004, 26)

Does a country's electoral system determine the intra-party candidate selection processes? Is there a correlation between electoral systems and candidate selection procedures? Some scholars argue that electoral systems determine, to a large extent, the selection procedures parties will use. Others contend that no relationship exists between the two institutions. In this dissertation, I argue that if there were a strong correlation between the selection processes and electoral systems, one would not witness variation in intra-party selection processes within categories of electoral systems. All parties elected in countries that use similar electoral systems should

have also used similar selection processes.

Similarly, I argue that if a strong association exists between selection processes and electoral systems, one would not witness cross-time changes in parties' candidate selection when the country's electoral system did not change. As long as the electoral system remained intact, one would not predict changes in selection processes. Lastly, I claim that if the relationships between elections and selections are strong, then one should not find intra-country variation in selection processes. Intra-country cross-party variation in how parties select their candidates would be suppressed. In what follows, I provide support that neither of these conclusions is corroborated. I conclude that electoral systems do not affect, or affect minimally, how parties/voters select legislators. Thus, I argue scholars should use my proposed differentiation and should not combine elections and selections into one indicator.

Before discussing the literature concerning the effect of electoral systems on intra-party candidate selection processes, I must emphasize that the prime focus of this section is the relationships between selection processes and electoral systems, and not elections more generally. The latter is a more inclusive concept than the former and includes, for example, the electoral success of a party. Undeniably, parties sometimes alter their selection processes to enhance their electability and legitimacy and to increase their membership, vote share, and seat share (Hazan and Voerman, 2006; Langston, 2001; Obler, 1973; Wuhs, 2006, N.d.). Elections also determine whether the party needs to select a single candidate or a slate of candidates (Scarrow, Webb and Farrell, 2000). Yet I do not examine this relationship in this chapter. I support the lack of a relationship between selection processes and electoral systems defined as a combination of the electoral formula used by the country (Lijphart, 1999; Lun-

dell and Karvonen, 2003) and the ballot structure (Rae, 1969)[10]. Thus, my analysis does not consider other general aspects of elections, the exact vote to seat allocation rule, the threshold, the size of the legislature, the registration and suffrage rules, or a country's political culture and other norms (Hazan and Voerman, 2006)[11].

Many scholars try to identify whether electoral systems affect intra-party candidate selection processes. However, the conclusions reached were indecisive. While some scholars argue for a general relationship between a country's electoral system and selection procedures (Krouwel (1999); Norris (1997)) others depict a more specific relationship between either district magnitude and selection procedures (e.g.,Epstein (1967)) or the ballot structure and how parties determine their candidates (Kasapovic (2001)). Krouwel (1999) argued that a country's electoral system affects the selection processes' degree of decentralization. Similarly, Czudnowski (1975) and Hermens (1972) claimed that under Proportional Representation systems, the national party leaders have control over candidate selection procedures. Gallagher (1988) maintained that in electoral systems where the role of voters in determining the winners is marginal, such as CLPR, the importance and involvement of national party agencies in the selection procedure increases. Kasapovic (2001, 6) advocated a strong relationship between electoral systems and intra-party candidate selection processes, arguing that "most researchers agree that the electoral system exercise the biggest influence on the general nature of candidate procedures". More specifically, he argued that

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[10]There are several classifications of electoral systems, each of which has pros and cons. For a discussion see: Blais (1988).

[11]To be exact, I classify the sample of countries in my data set into eight categories: Closed-List Proportional Representation; Weak Preferential when there is an option to rank; Open-List Proportional Representation; Single Member District; Alternative Vote; Single Non-Transferable Vote; Single Transferable Vote; Mixed Members Electoral Systems (MMP+MMM). See Table 2.3 for more details.

the design of the party lists, the size of the constituency, and the ballot procedures are all prominent factors that determine how parties select their candidates. Regarding *district magnitude* Epstein (1967) presented a similar argument and claimed that larger constituencies should be characterized by a greater party leadership influence over the selection compared to small constituencies. In a similar vein, Bojinova (N.d.) argued that large *district magnitude* will exhibit a centralization effect on candidate selection processes. Bojinova (N.d.) also maintained that a relationship exists between the ballot structure and selection processes such that parties under electoral systems with preferential ballot types will use permissive selection processes, such as primaries, while parties in fixed ballot electoral systems will use more restrictive procedures.

Other scholars have demonstrated the lack of a relationship between electoral systems and candidate selection processes. Lundell (2004) examined the determinants of candidate selection processes and conducted one of the few systematic analyses concerning the relationships between electoral systems and candidate selection procedures. He concluded that evidence does not support claims that electoral systems influence the nature of the candidate selection processes. Specifically, Lundell (2004) finds a substantively low (0.057) and statistically insignificant Pearson correlation between *district magnitude* and candidate selection processes, and a substantively low and statistically insignificant correlation between selection procedures and the ballot structure of the country (0.063).

Gallagher (1988) also showed that electoral systems by themselves do not determine the inclusive or centralized nature of the selection procedures. So did Gallagher and Marsh (1988). Kernell (2008, 8) argued that "the electoral system does

not dictate whether a political party will (or even should) centralize or decentralize...have primary elections or executive meetings to choose candidates...or open the party meetings to grass root participation". Likewise, Pennings (N.d.) maintained that no relationship exists between the type of electoral systems, conceived as the degree of proportionality, and how parties select their candidates. The reason for this claim, according to Pennings (N.d., 8) is that electoral systems are a country-level factor, whereas candidate selection processes "is a characteristic of parties and not of electoral systems".

Similarly, Field and Siavelis (N.d.) opposed scholars who argue that Proportional Representation (PR) electoral systems and especially PR systems with large district magnitude should be associated with less inclusive selection processes. They claim the relationships between electoral systems and selection processes are not that simplistic or deterministic. For example they argue that in countries that use strategically complex electoral systems, like Single Non-Transferable Vote, selection processes can be characterized by an exclusive control of party elites in an attempt to maintain coordination. Nonetheless, Field and Siavelis (N.d., 16) also maintained that "where preferential voting is the norm, voters will have a greater say, and the incentives for elite intervention will tend to be lower".

Wuhs (2006) examined the relationship between electoral systems and selection processes in Latin America. His cases studied a variety of OLPR, CLPR, and Mixed-Member electoral systems. He found, among other things, that parties in countries with OLPR systems do not use more permissive selection processes compared to par-

ties in countries with CLPR[12]. Montabes and Ortega (N.d.) compared selection processes in Spain and Portugal. Both countries have a CLPR system [13]. The authors concluded that the relationship between electoral systems and candidate selection processes is not as clear as it was first assumed in the literature.

The vast majority of the literature on the relationship between electoral systems and intra-party candidate selection processes fails to provide systematic empirical evidence for the existence or lack of this relationship[14]. Moreover, the camp that supports such a relationship has not provided empirical evidence, and the few scholars that conduct a systematic analysis find no support for the relationship between electoral systems and candidate selection procedures. Thus, for example, Hazan and Voerman (2006, 146) boldly argued that "aspects of the electoral system, such as the electoral formula, the district magnitude and the availability of preferential voting, have consequences on the political parties' choice of candidate selection methods". Despite these strong claims, the authors do not provide empirical evidence for the existence of such a relationship. In what follows, I remedy this shortfall and provide systematic and anecdotal evidence for the lack of relationships between electoral systems and candidate selection processes.

Having delineated the controversy in the literature concerning the association between electoral systems and candidate selection processes, I will examine whether

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[12]Yet, he found support for the relationship between electoral systems and selection processes in the case of the Proportional Representation seats in Mixed Member countries.

[13]Differences exist between Spain's and Portugal's electoral systems, including District Magnitude and assembly size.

[14]But see Lundell (2004), as I mentioned above.

electoral systems determine the type of candidate selection processes parties will use. To this end, I am going to use a unique data-set with 523 parties from 47 countries. I specifically examine three empirical implications that must hold if one asserts that electoral systems determine the type of candidate selection procedures parties use. First, if one supports the claim about a strong relationship between elections and selections, then variation in selection processes within an electoral system should be minimal. Section 2.4 provides support at the party and the legislator level, for a significant intra- electoral system variation in selection processes. Second, if electoral systems determine to a large extent the type of selection processes parties use, then one should not observe, absent an electoral system change, a party altering its selection processes across time. Similarly, in the presence of electoral system reform, one should observe a selection reform. Section 2.5 provides support for cross-time variation in selection processes when an electoral system remained constant. Third, if elections and selections are strongly related, one would not observe a substantial intra-country cross-party variation in selection processes. In Section 2.6 I examine whether an intra-country variation in how parties select candidates exists.

2.4 Variation of Selection Processes within Electoral Systems

If electoral systems systematically influence how parties select their candidates, one should observe little to no variation in selection procedures within an electoral system. In other words, all parties in a similar electoral context should also use, more or less, the same type of intra-party candidate selection procedures. In this section,

I show evidence does not support this claim. I provide anecdotal and empirical evidence for variation in selection procedures within an electoral system.

Many scholars associate CLPR with restrictive selection processes (Czudnowski, 1975; Epstein, 1967; Hermens, 1972). They claim that Proportional Representation leads to more centralized selection mechanisms because the districts are larger and the relationships between constituents and candidates are weaker. Thus, scholars argue that national party leaders do not need to pay much attention during the selection process to the opinion of local party organizations or voters (Norris, 2004; Ware, 1996). In Iceland, however, prior to the 2003 electoral reform that transformed the country's electoral system from a CLPR to a Weak Preferential electoral system, some parties such as the Progressive Party (FSF) in 1995-1996, the Social Democrat Party (SDP) in 1995-1996, and the People's Alliance (PA) in 1983 used open primaries, a very permissive selection process. Indeed Svanur (2004, 157) said "for now, one needs only point out the mixture of the open primary at the nomination level and the closed party list at the electoral level...". Similarly, in Israel, despite the extreme CLPR electoral system, several parties such as Labour, Likud, and Meretz used permissive primaries to select their candidates[15]. In the Nicaraguan CLPR system, the Partido Frente Sandinista (FSLN) selected its candidates for the 1996 elections via party primaries with an approval stage for the national party leadership (Santiuste, Salvador. {ssanti@usal.es} 2009, March.19. Information concerning Selection Processes in Nicaragua [Personal email]. (2009, March 19)). By the same token, Field (2006, 88) argues that the Spanish use of a CLPR electoral system "does not determine the means by which the parties choose those candidates or the person in the

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[15]See Figure 2.13 in the Appendix, for an example of an Israeli selection ballot.

party who influence their composition...".

Similarly, many scholars including Kasapovic (2001) want to associate Single Member District electoral systems with a decentralized manner for selecting candidates. Thus, Hazan and Voerman (2006, 158) argued that the hypothetical introduction of a Mixed Member electoral system in the Netherlands or more specifically the introduction of Single Member District into the system "will almost certainly lead to a partial decentralization alongside an expanded inclusiveness of the selectorate". Ohman (2004) finds support in Africa that when SMD systems are used, parties use more decentralized selection mechanisms compared to when Proportional Representation or Mixed systems are in place. Despite these views, in India, characterized by a Single Member District electoral system, the Congress Party used a very restrictive, centralized selection processes between 1952 and 1969 to nominate their candidates: a central parliamentary board consisting of six members and the central election committee with its eleven members were the formal institutions in which candidate selection took place[16] (Graham, 1986).

One can see further anecdotal evidence for the lack of determinant influence of electoral system on how parties select their candidates by comparing New Zealand after its electoral reform to a Mixed Member Proportional electoral system to Scotland after the devolution and the adoption of Mixed Member Proportional system. Indeed Miller (1999, 11) claimed that even though the electoral reform in both countries is more or less the same (movement from SMD to a MMP system), there were differences in the selection procedures parties in the two countries adopted: "Whereas the

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[16]Following Nehru's death in 1964, and by the 1967 elections, the central control of the Congress Party was somewhat weakened.

Scottish selection process moves from the highly centralized pre-selection stage to the decentralized, in New Zealand it moves in the opposite direction".

Figure 2.2: Proportion of Selection Procedures by Electoral System (Party Level)

national party leadership up to 10 selectors
national party delegates
local party leadership up to 10 selectors, subject to approval of the national party
local party leadership up to 10 selectors (at the local level)
local party delegates, subject to approval of the national party
local party delegates
primaries subject to approval of national party
primaries

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Figure 2.2 depicts the proportion of parties that use each type of intra-party candidate selection processes using the categories presented in Figure 2.1 within eight types of electoral systems (CLPR, Weak Preferential Electoral Systems, OLPR, Single Member District, Alternative Vote, Single Non-Transferable Vote, Single Transferable Vote, Mixed Member Systems)[17] [18]. To the degree that electoral systems exhibit a strong influence on how parties select their candidates, one should not observe a wide variation in selection procedures within each type of electoral system. All parties that face a similar electoral context should use the same selection procedure. The data in Figure 2.2 reveals significant variation in selection procedures within electoral systems. For example, parties elected in CLPR systems use vastly differently selection procedures that span seven of the eight categories of the selection index depicted in Figure 2.1. Out of the 216 parties elected under a CLPR electoral system, 19% selects using a very restrictive selection process where a small group of national party leaders determine who gets on the party's list. However, 27% selects via national party delegates such as a party committee or convention, and 17% uses primaries with or without the national party approval to select the list. 34% of parties oper-

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[17]Figure 2.11 in the appendix presents the frequencies of electoral systems in the data set. All countries in the data set were at least partially democratic according to the Freedom House rating on the political rights dimension. The threshold of inclusion in the data set was a rating of 4. I classified the countries' electoral systems based on two variables from The Comparative Data Set on Political Institutions by Lundell and Karvonen (2003): *electoral formula* and *preferential voting/party lists*. I augmented, checked, and corroborated using other sources of information such as the data described in Golder (2005) and Alvarez-Rivera (N.d.) and some country specific sources such as Lijphart (1995) for South Africa, or Schafferer (2003) for Taiwan. See: Table 2.3 in the Appendix for more details.

[18]Figure 2.15(a) and Figure 2.15(b) present the proportions of parties that use each type of intra-party candidate selection procedures, operationalized as the two categories of *selectorate* and *decentralization*. The results substantively are similar to the ones presented with my proposed combined index. Specifically, while there seems to be no relationship between electoral systems and *selectorate* (Figure 2.15(b)), there seems to be a weak relationship between level of decentralization and electoral systems. Nonetheless, I must emphasize that there is a substantial variation within most electoral systems, and that, for example, only less than 50% of the parties elected under CLPR systems use national only candidate selection procedures as literature would hypothesize.

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ating under a CLPR context selects via local party delegates. Thus, the percentage of parties under CLPR that selects via the restrictive small group of national party leaders is almost equal to the percentage of parties that selects via primaries, 19% and 17% respectively. In addition, I calculated a measure of effective number of selection processes[19]. Under CLPR, the effective number of selection processes is 5.4, indicating a clear variation in how parties select.

Similarly, the 65 parties under OLPR systems also exhibit variation in the methods they use to determine who can represent them on election day. While only 3% uses the most restrictive selection mechanism, selection by a small group of national party leadership, 10% uses national party delegates to select the list. 15% uses a small group of party leaders at the local level whose decision is subject to the approval of the national party leadership. 38% selects via local party delegates with or without national approval. This number is only slightly higher than the 34% under CLPR. The effective number of selection processes under Open List PR is 4.6. While a little lower than under CLPR, it still indicates a substantial variation in how parties under OLPR select.

As opposed to the unequivocal claims in the literature that associate SMD electoral systems with a very decentralized selection processes (Hazan and Voerman, 2006; Kasapovic, 2001; Krouwel, 1999; Ohman, 2004), the data in Figure 2.2 reveals some variation. While the majority of parties elected in SMD systems uses primaries either with or without the final approval from the national party leadership, 28% uses

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[19]I calculated it similarly to how one calculates the effective number of parties measure, $\sum \frac{1}{p_i^2}$, where p_i is the proportion of parties selected under each type of electoral system. I thank Guillermo Rosas for suggesting this measure.

selection by delegates at the local level to determine who can use the party's ballot on election day, and 16% uses selection at the national level. Indeed the effective number of selection processes is 5.6.

Thus, whereas under OLPR systems, roughly a third of the parties select via primaries compared to only 16% in CLPR systems, under both systems parties exhibit a high degree of variation in how they select their candidates. Therefore, while a certain degree of association exists between elections and selections, the data presented in Figure 2.2 supports inter-electoral systems variation in selection procedures. This finding contradicts the deduced empirical implication of a strong relationship between electoral systems and selection procedures[20].

Figure 2.2 is presented at the party level. Each bloc represents the proportions of parties out of all the parties in the same electoral system that selects via a specified selection process. However, this depiction might be misleading. It might still be the case that under CLPR electoral system, for example, parties select most legislators via the most restrictive selection processes. That might occur if the 19% of parties under the CLPR electoral system that select via a small group of national party

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[20]When one uses a simplified version of the candidate selection index that differentiates only between centralized and decentralized selection procedures and a simplified classification of electoral systems (CLPR versus the rest), a clear association appears. Specifically, Figure 2.12 in the Appendix presents the proportion of centralized (or decentralized) selection procedures in CLPR systems versus all other types of electoral systems mentioned above. A two-sided difference in proportion test is statistically significant at the 95% confidence interval and the 95% confidence interval of the difference is [-0.39:-0.20]. Interestingly, though, the majority of parties elected under CLPR systems, use according to the simplified classification, decentralized candidate selection processes (53%), which contrasts with the literature (Czudnowski, 1975; Epstein, 1967; Hermens, 1972; Norris, 2004; Ware, 1996). These results might explain the controversy in the literature. When using a simplified dichotomy to classify selection processes and electoral systems, it seems electoral systems affect candidate selection processes. However, as one uses a more precise definition and operationalization of electoral systems and selection procedure, the association between electoral systems and selection procedures blurs (Lundell, 2004).

leadership are the largest and contain the majority of the legislators that face the CLPR electoral system. Figure 2.3 presents for each electoral system, the proportion of legislators selected by each type of selection processes.

Figure 2.3: Proportion of Selection Procedures by Electoral System (Individual Level)
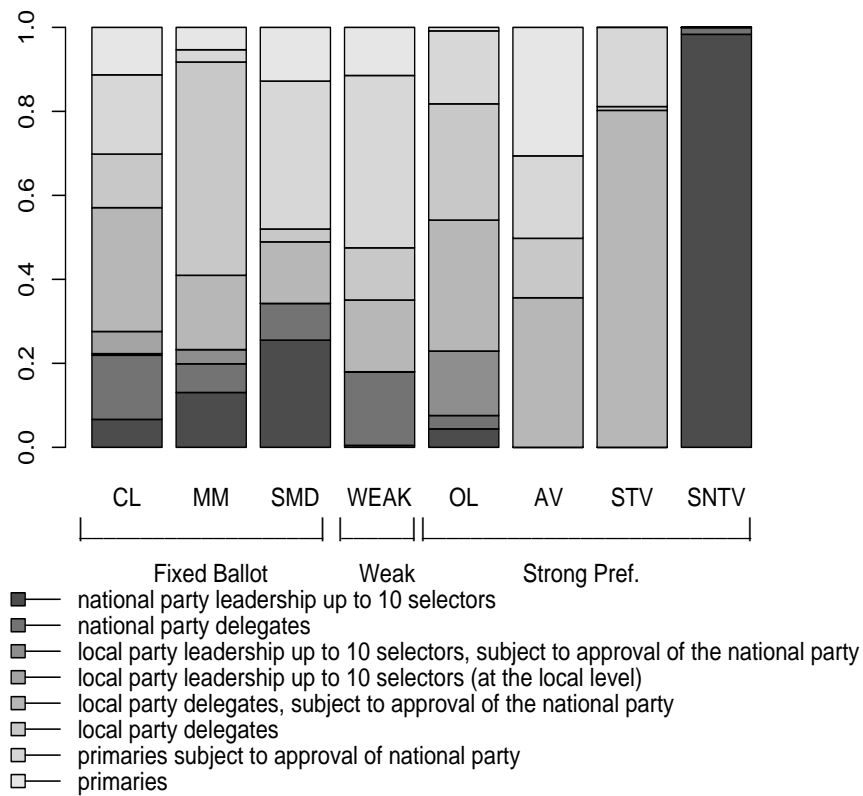
The party level results presented in Figure 2.2 largely hold with the individual-level figure. Whereas for OLPR systems, it seems the percentage of legislators selected by primaries exceeds the percentage of parties, in both figures (Figure 2.2 and Fig-

ure 2.3) these percentages do not near 50%. Only about 20% of the legislators elected under OLPR electoral systems are selected via primaries (with or without approval from the national party leadership). In addition, as opposed to the literature, under Single Member District electoral systems, the percentage of legislators selected via a national centralized selectorate is about 34%. This percentage is larger than the corresponding 16% at the party level. Similarly, while the literature associates CLPR systems with restrictive selection processes, parties under CLPR select only 21% of legislators via restrictive centralized manner using national party leadership or national party delegates. This percentage is significantly lower than the respective proportion of parties. The percentage of parties under CLPR that select via restrictive processes is 46%. Therefore, the analysis at the individual level refutes even further the argument that parties select legislators via restrictive means under CLPR electoral systems. Indeed, parties select roughly 33% of these legislators by primaries. To sum, Figure 2.3 strongly supports my argument that selection processes vary independently of the variation in electoral systems.

As I have mentioned above, scholars hypothesize about a specific relationship between *district magnitude* and candidate selection procedures. They argue that the larger the district, the more centralized and restrictive the selection processes is (Bojinova, N.d.; Epstein, 1967; Hazan and Voerman, 2006; Malcolm, 1973). Duverger (1954) argued that in large constituencies the candidate will have less influence on the body the makes his or her nomination. Figure 2.4 portrays the distribution of selection procedures in each of five groups of *district magnitude*[21]. If, as scholars

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[21]The size of the groups is unequal on purpose. Division of the groups was done in line with substantive knowledge. For example, countries in which district magnitude equals one were grouped together as a standalone group. The following two categories depict countries with medium-sized district magnitudes and the fifth category contains all countries where the average district magnitude

hypothesize, the larger district magnitude yields more restrictive selection processes controlled by the national party leaders, one should observe little variation in selection processes across parties that face elections in the same, more or less, district magnitudes.

Figure 2.4: Proportion of Selection Procedures by Average District Magnitude

* Numbers at the top of each bar represent the Effective Number of Selection Processes
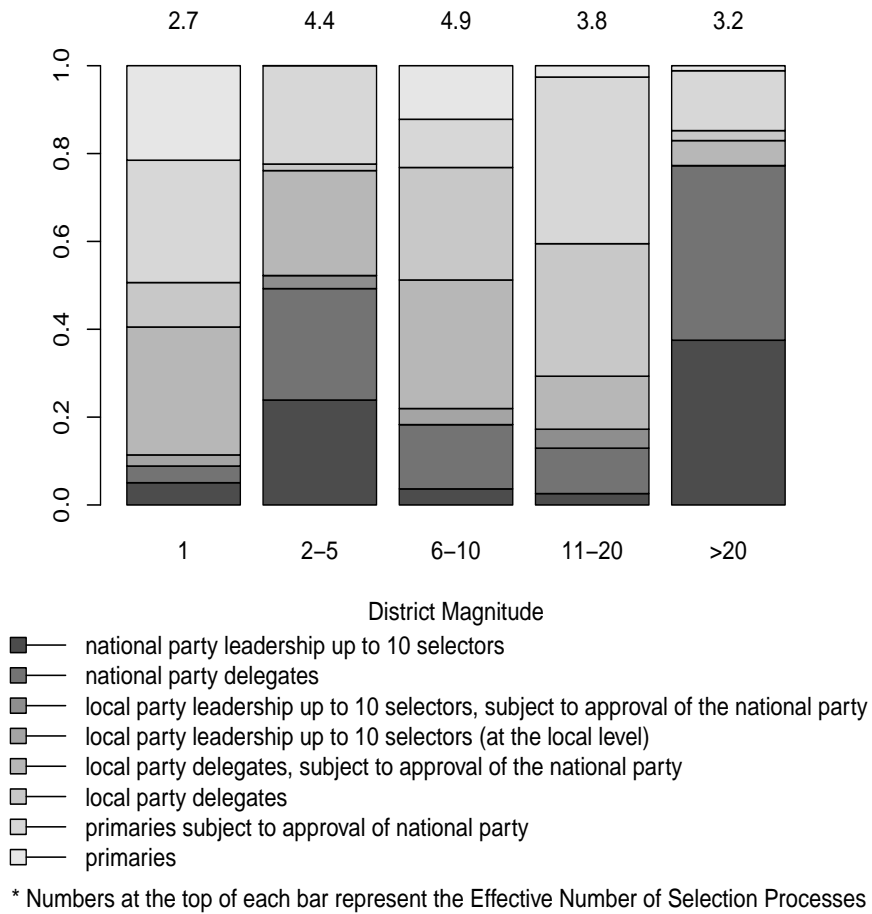
is larger than 20. Altering the sizes of the groups, using different bin sizes, did not change the conclusion concerning variation in selection processes.

Results concerning the relationships between *district magnitude* and selection processes are mixed. On the one hand, countries with magnitude of 1 perform the vast majority of the selection by primaries. Only 5% of parties in these countries select their candidates in the most restrictive manner. Similarly, in countries with an average district magnitude larger than 20, roughly 67% of the parties use selection by national party organ, either a small group of national party leaders or national party delegates.

On the other hand, one still finds a substantial variation in selection processes within categories of district magnitudes. 37% of the parties that run in countries with average district magnitude of 1 use local party delegates to select their candidates and not primaries as literature hypothesizes. Moreover, roughly 9% uses national level selection mechanisms. Similarly, approximately 33% of the parties that participate in elections characterized by large district magnitude uses decentralized selection processes, including 15% that uses primaries. This opposes the literature's assertions.

Moreover, the 5% of parties that select by the most restrictive procedure when district magnitude is 1 matches the proportion of parties that select by these restrictive processes when district magnitude is between 11 and 20. This seems to contradict the argument that in larger district magnitudes, parties will adopt restrictive selection processes compared to Single Member District electoral systems. Similarly, 98% of parties in countries with an average district magnitude of between 6 and 10 selects in a decentralized manner via primaries, local party delegation, or local party leaders. This percentage is slightly lower, 91%, in countries with single member districts. This indicates that parties in countries with the smallest possible district magnitude did not tend to adopt more decentralized selection processes compared to their counter-

parts in countries with electoral systems associated with a large district magnitude. Lastly, as one can see by the effective number of selection processes at the top of each bar, a substantial variation in selection processes exists within each category, most notably among parties elected with medium district magnitudes.

Kasapovic (2001) and Bojinova (N.d.) advocated a strong association between *Ballot Type* and *Ballot Access*. Specifically, scholars argue that parties elected under a fixed ballot electoral system will use restrictive centralized selection procedures while parties elected under electoral systems with strong preferential ballots will use primaries. Moreover, the amalgamation introduced by Carey and Shugart (1995) effectively assumes deterministic correlation between *Ballot Type* and *Ballot Access*. Using data I collected, I find that generally a strong association does not exist between *Ballot Type* and selection processes. The Spearman rank correlation between these two variables is 0.19, indicating that the more ballot type is emendable to change by by the voters, the more parties use permissive selection processes. This result indicates, at best, a moderate correlation between the variables[22]. I also ran a χ^2 test on the contingency table (Table 2.1), and the positive simulated p-value (0.005, on a $\chi^2 = 290.41$) indicates that selection categories are not distributed equally across *Ballot Types*. Nonetheless, I argue that no strong relationship exists between *Ballot Access* and *Ballot Type*, at least not enough to merit the amalgamation of the two institutions. Hence, the amalgamation of Carey and Shugart (1995) misleads.

Figure 2.5 presents a bar plot of selection processes within each category of *Ballot Type*. If *Ballot Type* and selection processes exhibited a strong association, one

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[22]If one combines fixed ballot with weak preferential ballots into one category, the correlation between the newly correlated ballot type and selection is even weaker (0.09).

Table 2.1: Contingency Table: Ballot Type and Selection Processes

| | | Ballot Type | | | |
		Fixed	Weak	Strong	Sum
	1	56	1	12	69
	2	65	19	7	91
	3	2	0	10	12
	4	5	0	0	5
Selections	5	51	17	30	98
	6	54	15	21	90
	7	38	34	38	110
	8	29	12	7	48
	Sum	300	98	125	523

Selections
1: national party leadership up to 10 selectors
2: national party delegates
3: local party leadership up to 10 selectors, subject to approval of the national party
4: local party leadership up to 10 selectors (at the local level)
5: local party delegates, subject to approval of the national party
6: local party delegates
7: primaries subject to approval of national party
8: primaries

should not observe great variation in selection processes across parties elected under the same *Ballot Type*. Nonetheless, the effective number of selection processes within each category depicted at the top of each bar indicates a substantial variation in how parties select. Moreover, if a strong association existed, one would expect that under fixed ballot systems, the majority of parties will select via restrict centralized selection processes. However, strong support does not exist for the argument that fixed ballots would be associated with restrictive-centralized processes, whereas parties under strong preferential electoral systems would use primaries. Under fixed ballot electoral systems, only 40% of the parties use centralized selection processes either by

national party leaders or national party delegates, but the majority of the parties use decentralized procedures. Under strong preferential systems, only about 33% of the parties use primaries, and 16% uses restrictive selection procedures. Moreover, more parties under weak preferential electoral systems use primaries compared to strong preferential electoral systems (47% versus 36%, respectively).

Figure 2.5: Proportion of Selection Procedures by Ballot Type (Party Level)

* Numbers at the top of each bar represent the Effective Number of Selection Processes
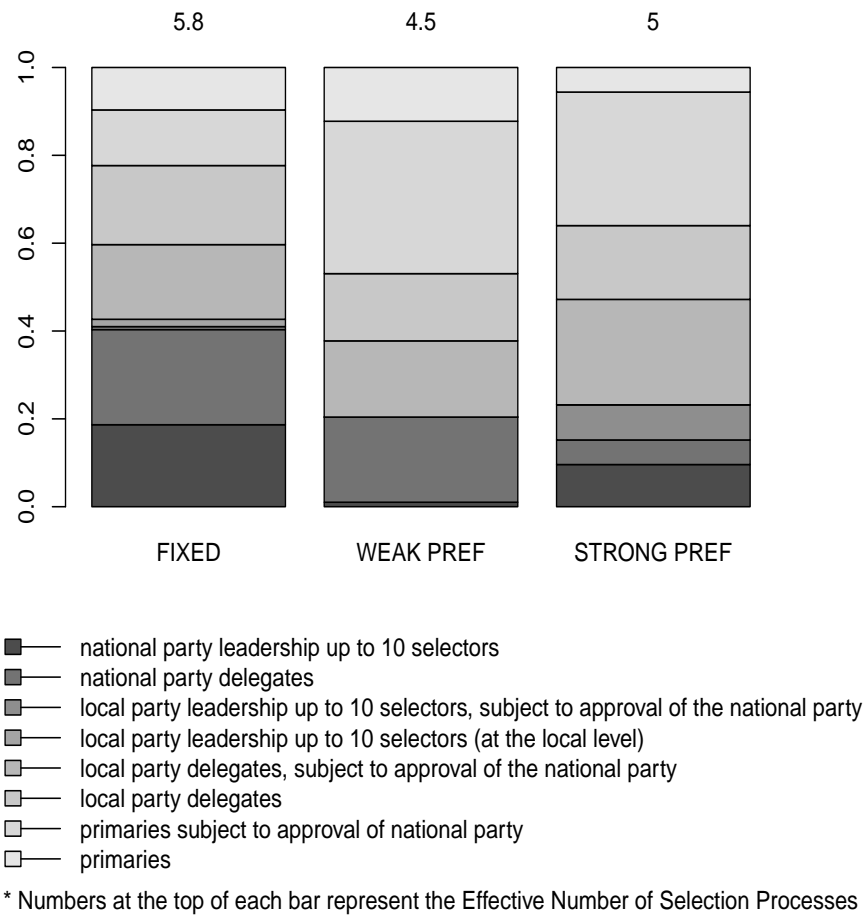
Figure 2.6 further support these results. It presents a similar bar plot to the one in Figure 2.5, but this time, the X-axis portrays the selection procedures, and the figure presents the proportion of parties elected under fixed, weak preferential and strong preferential ballots under each type of selection processes. Although about 80% of the parties that select using the most restrictive selection processes are elected via fixed ballot electoral systems, nearly 60% of those selecting via the most democratized and decentralized procedure are elected by the same restrictive system. Moreover, under both the most restrictive and the most permissive selection procedures, the percentage of parties elected under a strong preferential electoral system is almost identical at about 16%. This provides additional support for the argument that the relationships between *Ballot Type* and *Ballot Access* is minimal.

In Figure 2.7 each bloc represents the proportion of legislators out of all the legislators that face a certain *Ballot Type* (Fixed, Weak Preferential or Strong Preferential) who are selected in each of the selection procedures depicted in Figure 2.1. One can see from the individual-level figure, and in contrast to arguments in the literature, that parties that face the same *Ballot Type* use divergent intra-party candidate selection procedures. But, the results presented in Figure 2.7 are even stronger. It seems that the proportion of legislators, out of all the legislators who are elected via fixed ballot electoral systems, that are selected by the most restrictive-centralized manner (10%) is lower than the proportion of legislators elected under strong preferential electoral systems, who are selected by the same restrictive manner (21%). Moreover, 30% of legislators elected via fixed ballot electoral systems are selected by primaries with or without national party intervention. Only 20% of legislators elected under strong preferential electoral systems are selected via primaries. This

Figure 2.6: Proportion of Ballot Type by Selection Procedures
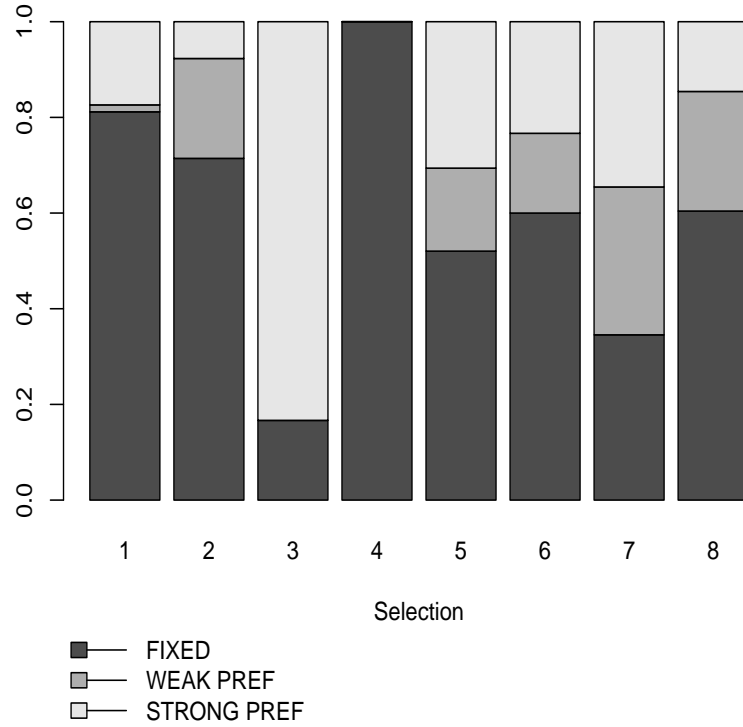
data contrasts with the prevalent position in the literature as presented in Section 2.3.

If electoral systems determine, to a great extent, the type of selection processes parties use and if one did not observe variation in selection processes within types of electoral systems, one could safely amalgamate selections and elections to study legislators' behavior. Under these circumstances though, one would not observe a great deal of variation in how parties select their candidates across parties under the

Figure 2.7: Proportion of Selection Procedures by Ballot Type (Individual Level)

legend:
- national party leadership up to 10 selectors
- national party delegates
- local party leadership up to 10 selectors, subject to approval of the national party
- local party leadership up to 10 selectors (at the local level)
- local party delegates, subject to approval of the national party
- local party delegates
- primaries subject to approval of national party
- primaries
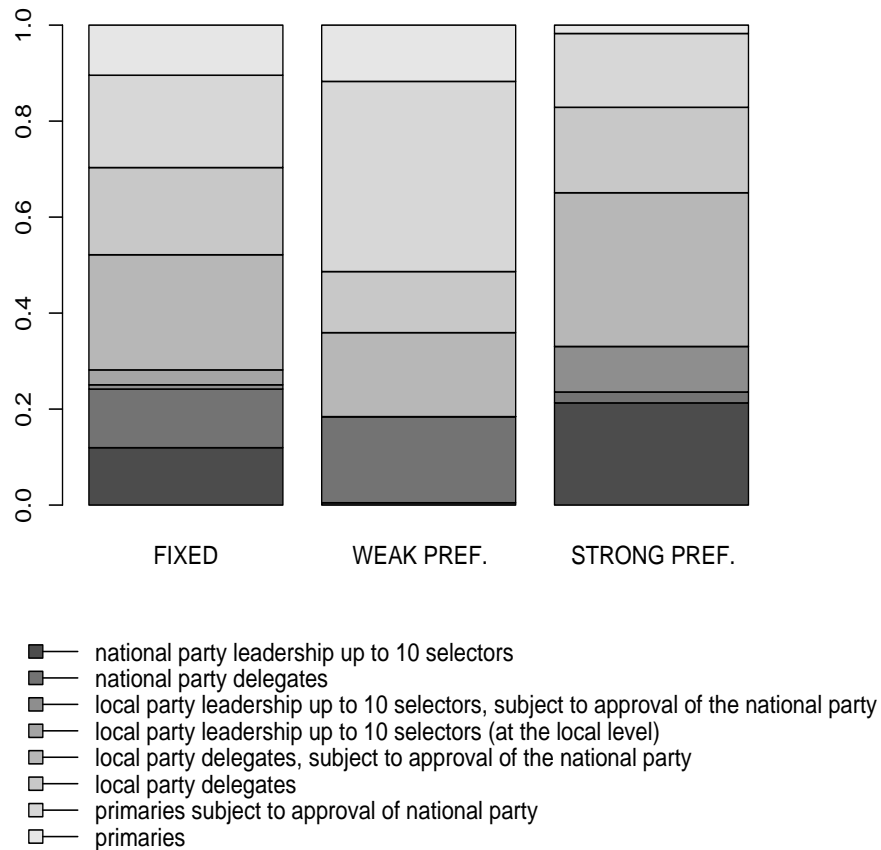
same electoral systems. Using data on candidate selection processes at the party and at the individual level, I showed that such variation exists. Parties that operate under the same electoral system, *District Magnitude*, and *Ballot Type* contexts use divergent selection mechanisms to decide who gets to represent them on election day. At the party level, the data supports my argument that selection processes vary considerably within categories of electoral systems and vice versa. Moreover, the data at the individual level supports the argument more strongly and reveals that the real world

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does not support the hypotheses in the literature. While the literature asserts that under fixed ballots most parties select via restrictive manner and not by primaries, the data revealed the opposite. To refute the hypothesis concerning a strong relationship between electoral systems and selection procedures and to provide a rationale for the analytical and empirical differentiation between elections and selections, I examine additional empirical implication of the hypothesis: that one should not observe cross-time variation in selection processes in a country that did not alter its electoral system. Similarly, parties in a country that did experience an electoral reform should alter their selection procedures to match the new electoral system. The next section provides anecdotal evidence to the contrary.

2.5   Cross-Time Variation in Selection Processes

If electoral systems exhibit a strong influence on how parties select their candidates, one would not see, given electoral system stability, changes in the selection processes. Similarly, an electoral reform should trigger a selection process reform where parties alter their selection procedures to match the new electoral system. One should witness cross-time variation in selection processes when a country experiences an electoral reform and should not witness cross-time variation when a country's electoral system does not change. In this subsection, I use anecdotal evidence to show that neither statements is corroborated. The literature and the data I have collected on candidate selection processes reveals a different picture.

The electoral reform that Iceland experienced in 2003 did not lead to vast changes in how its parties select their candidates as one would expect from asserting a strong relationship between elections and selections. In 2003, Iceland altered its electoral

system from CLPR to a system that elects 63 MPs in six districts by a weak preferential electoral system where voters can make changes within their preferred party list[23]. Despite this profound change in the electoral system, parties did not change their candidate selection procedures and maintained the use of open primaries to select candidates (Svanur, 2004). Other countries provide similar evidence. The New Zealand First party continued to select its candidates in a very restrictive manner despite the electoral reform New Zealand adopted (Mulgan, 2004). Thiebaut (1988) argued that in France "the adoption of proportional representation has not brought about any great change in the PCS (the Parti Communiste, Y.S) candidate selection process".

In many instances, parties changed their selection processes without precipitating electoral reform. For example, while the United States electoral system did not change between 1890 and 1920 and remained a Single Member District system, most states have adopted the direct primaries to nominate candidates for the House of Representatives (Ansolabehere, Hirano and Snyder, 2007). Likewise, while Canada's electoral system remained intact[24]) major parties that used to select their representatives using delegate conventions adopted from 1993 the Plebiscitary model (Young and Cross, 2002). Speaking of Taiwan, Baum and Robinson (1999) described the changing nature of the Kuomintang (KMT) selection process when the nation's electoral system remained unchanged. In the 1989-1994 period, the party held primaries,

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[23]Voters can either erase the names of candidates on the list or change the ranking of candidates on the banner.

[24]Though Canada continued to elect its representatives using the SMD electoral system, in 1970 it changed electoral law [Canada Electoral Act, 81(1) and 82(1)] so party leaders needed to officially certify the party's candidates. This provided the central national party leadership with a potential legal veto over candidate selection (Cross, 2002; Erickson and Carty, 1991).

but "by 1995 candidates for the KMT...were recommended by the central standing committee and the party congress by the seven member committee chaired by then Vice President Li" (Baum and Robinson, 1999, 16).

The Netherlands, too, maintained the same electoral systems since 1974 (Golder, 2005; Lundell and Karvonen, 2003). Candidate selection processes, on the other hand, have changed frequently. Candidate selection procedures are extra-legal in the Netherlands, and parties are free to organize and determine how they select their representatives (Koole and Leijenaar, 1988). Despite the fact that the electoral system did not change, Dutch parties have altered how they select their candidates (Leijenaar and Niemoller, 1997). The People's Party for Freedom and Democracy (VVD) centralized its candidate selection processes in the 1990s. In 2002, though, VVD introduced a more permissive system where party members electronically or via postal ballot can rank the order of the party's banner (Hazan and Voerman, 2006).

The Dutch Labour Party (PvdA) used a decentralized selection process in the early 1980s. In 1981, an independent commission organized the selection of candidates. The commission suggested a general ballot profile with no specific names which the party council, a party delegate body, approved. The local branches of the party, based on the approved profile, suggested names to the regional party organization composed of local delegates. Then, the regional party organization determined the order of the list in their electoral sub-districts[25](Koole and Leijenaar, 1988). In 1986, though, PvdA debated its selection processes, as the party executive wanted to gain more control and to weaken the control of the regional party organizations. The

[25]Note that the head of the list was common across all 19 sub-districts.

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party changed the relatively permissive decentralized selection procedure, and, in the 1990s, the party congress made the final decision concerning the party's list based on recommendation by the National Committee (Koole, 1994).

Changes in selection processes in other Dutch parties were common. Indeed Leijenaar and Niemoller (1997, 120) argued that during the 1990s "the four main parties altered their recruitment practices, providing the national party organization more dominant role". The Democrats 66 (D66), on the other hand, decentralized even further its selection procedures. Before 2002, all party members participated via postal ballot to select candidates, but after the party's defeat in 2002, it has adopted open primaries and involved the general electorate in the nomination process (Hazan and Voerman, 2006). Thus, one can characterize the Dutch political system best by constancy of its electoral system concurrent with the cross-time variability in its selection processes.

Similar to the Netherlands, the Belgian electoral system has remained relatively stable through the years (Golder, 2005; Lundell and Karvonen, 2003). Despite the constancy of this country-level characteristic, "since the 1960's dramatic changes in actual selection process has taken place in most parties" (De-Winter, 1988, 20). Specifically, parties used pure polls before the 1960s, but their use has diminished. Before 1965, the Christian People Party (CVP) used a constituency-level poll system[26], but, in 1965, the party added a step where the National Party Bureau gained the authority to approve the final list, to change its order, to add candidates, or to remove candidates (De-Winter, 1988). As another example, the Flemish Socialist

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[26]For details about the specific poll system used by the CVP, the model list, see De-Winter (1988).

Party (SP) used a pure poll system in which the national party leadership could not intervene in 1958 and 1961. During the 1960s and 1970s, the SP's usage of polls declined dramatically. In 1978, no constituency used the pure poll system any longer. The party replaced the poll procedure with a process where the constituency congress of the party, composed of delegates, approved a list drawn by the constituency committee (De-Winter, 1988).

Israel's electoral system remained almost entirely unchanged between 1960 and 1996[27]. Nonetheless, the Israeli political arena witnessed frequent changes in intra-party candidate selection procedures during this period. For example, prior to 1977, the Likud party, or more precisely its predecessor Herut, selected its candidates using a small selection committee that determined who represented the party on election day (Barnea and Rahat, 2007). In 1977, Likud/Herut opened its selection procedures and used the party central committee to select the list. In 1988, the Likud was formed, and it continued to select its candidates through a party national committee.

Similarly, the Labour party also witnessed great cross-time variation in how it selected its candidates. Before 1959, Mapai, the predecessor of Labour, used highly restrictive selection procedures where an exclusive nomination committee composed of a small number of party leaders determined who would represent the party (Barnea and Rahat, 2007). From 1959 to 1977, Labour used a national level arrangement committee to select its candidates. More specifically, it used a two-stage processes where the nominating committee named 25 candidates and eleven regional councils named 25. The nominating committee, though, was responsible for final determination and

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[27]In 1996, Israel adopted the direct election for the prime minister but abolished this mechanism after the 2001 elections.

ranking of the list. In 1988, Labour used a procedure similar to the one use by Herut since 1977, and determined the list in a national party committee. By 1992, Labour changed its selection process once again by adopting party primaries to determine candidates (Bar, 1996). While Israel's electoral system did not change significantly over these years, its parties selection processes evolved.

In Ireland, like Israel, some parties have also changed their selection processes over the years despite the fact that the Irish electoral system, a Single Transferable Vote system, remained the same. Before 1997, the Fine Geal (FG) party selected its candidates using local delegate conventions. Nonetheless, through the years, the national leadership slowly increased its control over the selection procedures. From 1970, the center of the party could ratify candidates and impose extra candidates if it deemed it necessary. In 1978, the party's rules allowed the national center of the party to alter how the district selected (Farrell, 1994). In 1997, the convention delegate system was replaced by the One Member One Vote (OMOV) system in which all party members selected the candidates while some central party control was maintained (Farrell, 1994; Galligan, 1999; Weeks, 2007). In 1992, the Democratic Left party changed its selection process from selection in delegation convention to the more inclusive and permissive selection via the OMOV process where all party members could participate in the process (Galligan, 1999).

Cross-time selection process stability has not mirrored the electoral system stability in the United Kingdom (U.K.) In the last few decades, both the Labour and the Conservative parties have changed their selection processes even though the electoral system the country used remained the same. For the 1964 elections, the Conservative Party invested the responsibility of selecting candidates in the hands of the

constituency associations while maintaining a certain degree of control at the hands of the national party leadership[28](Rush, 1969, 19). More specifically, a local selection committee composed of seven to forty members across constituencies pared the number of applicants and composed a short list. The Executive Committee of the constituency, between 50 and 250 members, then determined the candidates (Rush, 1969). In 1997, Conservative party members gained the ability to select the candidates in selection meetings in their constituencies (Hopkin, 2001), while the national party maintained a degree of control by providing the list of approved candidates.

For the 1964 elections, Labour used a selection procedure that invested power mainly at the hands of the local party organizations, but the national party retained some control[29]. Specifically, the local Executive Committee, composed of fifteen to forty members, reduced the number of nominees to a short list. The General Management Committee, composed of 32 to 320 members, made the final decision (Rush, 1969). In 1988, Labour made its selection procedure more permissive by limiting the percentage of party affiliates, mainly trade unions, in the selectorate, called the electoral college in the literature. Labour capped this percentage at 40% and allocated the remaining 60% to the individual party members (Hopkin, 2001; Mikulska and Scarrow, N.d.; Quinn, 2004; Scarrow, 1996). Labour used these rules for the 1992 elections. In 1993, Labour changed its selection procedure, using the One Member

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[28]If the local association of the party selected a candidate who was unacceptable in the eyes of the national Standing Advisory Committee on Candidates (S.A.C.C.), the party would not officially regard the candidate as the party's candidates. These instances were rare, and Rush (1969) argues that between 1945 and 1969 it only occurred twice.

[29]The National Executive Committee initiated the selection process, examined the validity of the aspirants based solely on technical grounds, and could veto any selection. Note that the center party could not "refuse endorsement merely because it does not like a particular candidate or would have preferred an alternative nominee"(Rush, 1969, 135). Lastly, the National Executive Committee could expel a member from the party, effectively refusing to endorse him or her.

One Vote methods to decide candidates[30] (Hopkin, 2001). Thus, for the 1997 elections, Labour abandoned the local electoral colleges and substituted it with the One Member One Vote procedure with the national party retaining approval power after the selection took place. The parties in the U.K. provide very dramatic examples of a cross-time variation in candidate selection processes that coexisted with electoral system stability.

The evidence presented thus far supports a lack of a strong association between electoral systems and candidate selection processes. Parties elected under the same electoral systems use divergent methods to select their candidates. Similarly, parties from countries that did not experience an electoral reform often change the mechanism they use to select their candidates, whereas parties from countries that witnessed electoral system change do not necessarily alter their selection processes.

In the next section, I provide evidence for a cross-party variation in candidate selection processes within the same country-session. This evidence supports my argument that electoral systems do not determine or strongly affect the type of candidate selection processes parties use and that scholars should not amalgamate the two institutions.

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[30]The party members could choose the candidate from a predetermined list of nominees. The selection process was initiated by the local Executive Committee, which then submitted the list of aspirants to the approval of the National Party Executive.

2.6 Intra-Country Variation in Selection Processes

Despite their claim that electoral systems influence candidate selection procedures, Hazan and Voerman (2006) acknowledged the limitation on the explanatory power of a country-level characteristic, like electoral system, on selection processes. Since candidate selection processes are a party-level factor and are mainly extra-legal, one often observes intra-country cross-party variation[31]. In this subsection, I examine empirically the extent to which intra-country cross-party variation in candidate selection processes exists. If electoral systems determine candidate selection processes, one should not observe a great degree of intra-country variability.

Langston (2008) examines how parties in Mexico select their legislative candidates. She concludes that despite the fact that all parties operate under the same institutional environment and the same electoral system, the three most important parties use different mechanisms to select their legislative candidates. Similarly, analyzing the myriad selection processes in Australia led Jaensch, Brent and Bowden (2004) to conclude that although all Australian parties operate under the same electoral system, a wide range of selection mechanisms exists (see also: Johns (2000)).

Figure 2.8 presents the intra-country variation at the party level in candidate selection processes for a small subset of my data set. Figure 2.9 presents the proportion of legislators in each country selected by each the selection processes I use in this dissertation (See Figure 2.1)[32]. As can be seen from both figures, these coun-

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[31]Of course, if a country's law regulates candidate selection procedures, one will not observe intra-country variation. This is the case in Finland, for example.

[32]All countries but Slovakia include several sessions. All sessions within a country used the same electoral system.

Figure 2.8: Proportion of Selection Procedures by Country (Party Level)

national party leadership up to 10 selectors
national party delegates
local party delegates, subject to approval of the national party
local party delegates
primaries subject to approval of national party
primaries
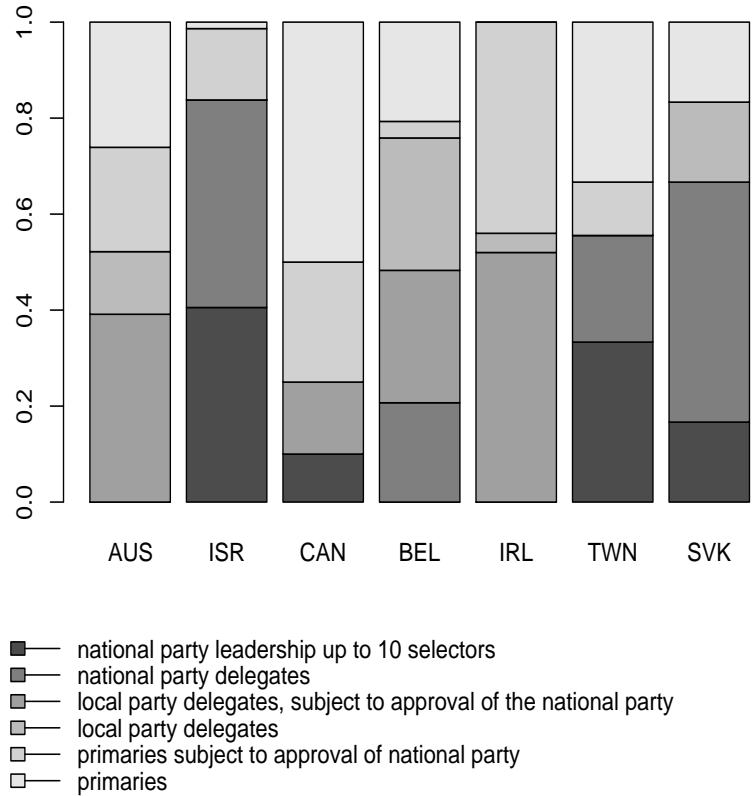
*Selection via local party leadership does not exist in these countries

tries exhibit a relatively high degree of divergence in how their parties select their candidates and how their legislators are selected. There are slight, non-meaningful, differences between the party and individual level figures. For example, in Taiwan before its electoral reform, parties used four different types of selection procedures while Slovakian parties used five different types of selection processes ranging from the most restrictive manner used by Direction - Social Democracy (SMER) to the

most permissive procedure used by Slovak Democratic and Christian Union (SDKÚ).

Figure 2.9: Proportion of Selection Procedures by Country (Individual Level)
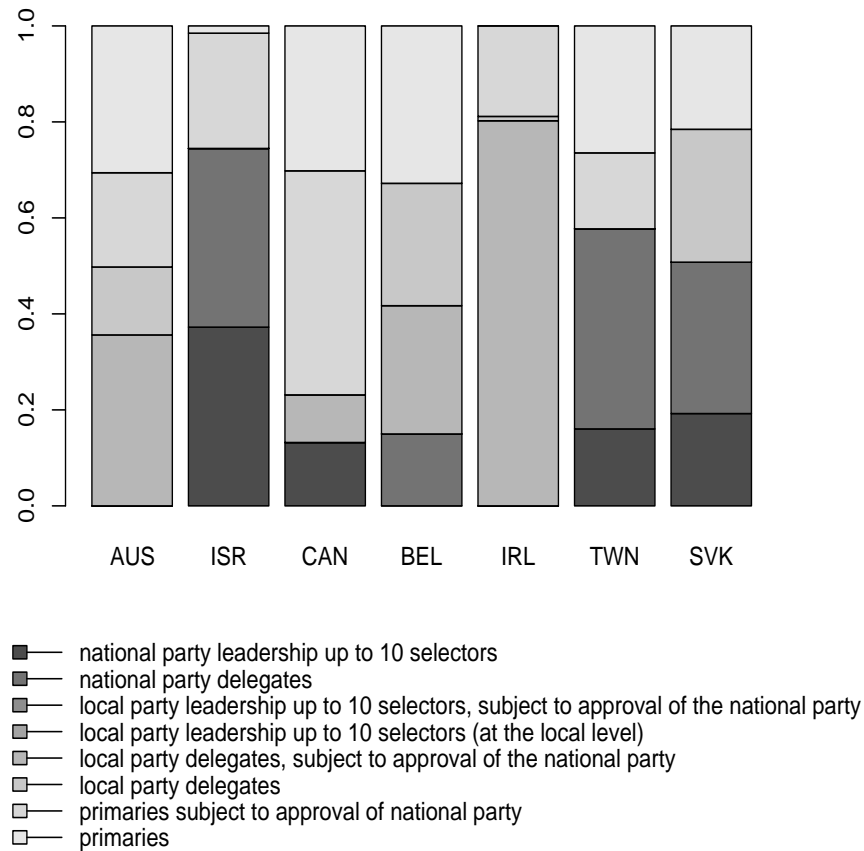
Not only does one observe cross-sectional variation across parties within a country that did not change its electoral systems, but frequently, this cross-party variation exists within the same country-session[33]. For example, Bille (2001) classified Austrian

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[33]Country-session refers to a certain period of years that usually mirrors the legislative sessions. Thus, Israel 1996-1999 is a country-session, as is Switzerland 1999-2003. Using this unit of analysis

candidate selection procedures in 1989 according to the data provided in Katz and Mair (1992). According to his classification scheme which differs slightly from the one I introduced in Figure 2.1 the Social Democratic Party of Austria (SPÖ) used a fairly restrictive process where the sub-national party organization proposed the candidates, but the final decision was left to the hands of the national party organs. On the other hand, the Christian Democratic Austrian People's Party (ÖVP) and the Freedom Party (FPÖ) used more inclusive and decentralized selection procedures where the sub-national party organization made the decision subject to the approval of the national party. In 1989, the Green Party selection processes were even more permissive as the sub-national organs of the party solely controlled the selection (Bille, 2001).

Before the 1997 elections in Chile, most parties but the Christian Democratic Party (PDC) used national-level selection to select their candidates (Field and Siavelis, N.d.). The Party for Democracy (PPD) used its national board to select the candidates (Navia, 2008) and the National Renewal (RN) party used the national council. The Independent Democratic Union (UDI) used an even more restrictive selection process where party leadership negotiated and determined the candidates (Field and Siavelis, N.d.; Navia, 2008). On the other hand, the PDC used in 1997 closed primaries to select their candidates. By 2001 it opened its selection procedures even further by adopting open primaries (Navia, 2008).

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gets rid of intra-country same-party cross-time variation in selection processes discussed in subsection 2.5. Moreover, by definition, the electoral system context within which all parties in a country-session operate is the same.

Selection processes in the Czech Republic before the 1996 elections varied as well. The Civic Democratic Alliance (ODA) altered its relatively restrictive selection process from 1992 to a permissive selection procedure where party members in regional caucuses selected the party's candidate lists. The national organization maintained a degree of control, as it had the right to change the list and to adjust it (Deegan-Krause, 2006). The Czech Social Democratic Party (CSSD), as well as the Civic Democratic Party (ODS) adopted a similar process to the one used by the ODA. On the other hand, the Christian Democratic Union-Czech's People's Patry (KDU-CSL) and Union for Republic- Republican Party of Czechoslovakia (SPR-ESC) "avoid the tendency towards member caucuses"(Deegan-Krause, 2006, 86).

Like those in the Czech Republic, French parties used divergent selection methods to choose their candidates before the 1962 elections. As in many countries, candidate selection processes in France are extra-legal as no law regulates how parties select their candidates (Thiebaut, 1988). The Gaullist Rally for the Republic (RPR) party used a fairly restrictive selection procedure where a nomination commission, after receiving suggestions from the local departmental organizations, presented a list of candidates to the Central Committee. On the other hand, selection processes in the Popular Republican party (MRP) were fairly permissive and decentralized. The candidates were selected through a secret ballot procedure at the federation level, an intermediate layer between the national and local levels of the party. The national Executive Committee then approved the candidates (Janda, 1980). The Radical Socialist party's processes were less permissive than the MRP's but more permissive than the PRP's. A local committee selected candidates without an approval stage at the national level (Janda, 1980).

One can see cross-party variation in selection procedures in Israel before the 1999 elections. Before the elections for the 15th Knesset, Labour selected its parliamentary candidates in party primaries[34](Hazan, 2002). The Likud party, on the other hand, selected its candidates in the party's central committee (Rahat, 2002). Meretz used a two-stage process where the party's council screened the candidates and its convention, roughly 2000 members, ranked the list (Hazan, 2006a; Rahat, 2002; Rahat and Sheafer, 2007). The National Religious Party chose the list in the party's central committee, and so did Shinui Party. The Center Party used a more restrictive procedure where party leaders negotiated the candidates under the party's banner (Rahat, 2002).

Similar cross-party intra-country-session variation in how parties select their candidates shows in Ghana. Before the 2000 elections, the National Democratic Congress used a restrictive centralized process where national party leadership had the control, and constituency influences were marginal. The New Patriotic Party (NPP) used delegate conventions at the constituency level, and its national party organs could not change the decision made at the constituency level (Ohman, 2004).

One can see variations in selection procedures within a country-session in many other cases, such as Italy before the 1983 elections (Wertman, 1988), Nicaragua before the 1996 elections (Santiuste, Salvador. {`ssanti@usal.es`} 2009, March.19. Information concerning Selection Processes in Nicaragua [Personal email]. (2009, March 19)), Portugal 1985 (Montabes and Ortega, N.d.) and in Slovakia before the 2002 elections (Meseznikov and Gyarfasova, 2006). If electoral systems exhibited a strong influence on the type of selection procedures parties use, one should not have ob-

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[34]Labour started using primaries to select its list for the 1992 elections.

served such a vast cross-party intra-country-session variation in selection procedures. Parties within the same country-session operate within the same electoral context. They should have had, therefore, similar processes to determine who gets to represent them on election day. The data supports the contrary. It seems candidate selection procedures and electoral systems exhibit no meaningful association. Given these results, amalgamating elections and selection seems unreasonable.

2.7 Conclusion

Chapter 2 shed the light on the concepts of *Ballot Access* and *Ballot Type*. I began by differentiating the two concepts, paying great attention to the differing levels at which each operated. *Ballot Access* is the selection process the parties use to select their candidates. It describes how candidates gain permission to use the party's banner. As such, *Ballot Access* is a party level characteristic.

On the other hand, *Ballot Type* is an electoral system factor that measures how much voters have control over the ballot at the general election day. Differentiating between *Ballot Access* and *Ballot Type* ameliorated a pitfall in the current literature that combines electoral systems and intra-party candidate selection procedures into one concept. Distinguishing between the two concepts also enables one to examine the degree to which electoral systems affect intra-party candidate selection processes and determine how parties select their representatives. If electoral systems determine candidate selection processes, then combining elections and selection would not have been so problematic.

While some scholars argue that a country's electoral system determines the type of selection procedures its parties adopt, others maintain that electoral systems bear no significant influence on selection processes. Differentiating between *Ballot Access*, that is, candidate selection processes, and *Ballot Type* allowed the second part of this chapter to examine whether electoral systems are strongly associated with selection procedures. Using an original data set of party-level candidate selection processes including 523 parties from 47 countries, I examined the assertion about a relationship between elections and selections. Specifically, I argued that asserting that electoral systems strongly determine intra-party candidate selection processes leads to certain empirical implications.

First, if electoral systems affect the type of selection procedures parties use, one should not observe variation across parties elected under the same electoral system. In section 2.4 I supported the contrary and demonstrated that parties elected under the same electoral system with the same average district magnitude, the same ballot structure, and the same electoral formula reveal variation in how they select their candidates.

Secondly, I argued that if electoral systems affected intra-party candidate selection processes, one should not have observed cross-time variation in party's candidate selection processes when the electoral system remains unchanged. On a similar note, I argued that if elections and selections are associated, then when a country experiences an electoral reform, one should have witnessed a selection reform. Section 2.5 provides evidence for a cross-time variation in how parties within countries that did not alter their electoral systems selected their candidates. Similarly, it provides

evidence for instances in which an electoral reform did not trigger a selection reform.

Lastly, if electoral systems affected how parties select their representatives, one should not have observed intra-country-session cross-party variation in parties' candidate selection processes. Parties from the same country-session should have used the same candidate selection processes. Section 2.6 reveals that parties from the same country-session used divergent manners to select their candidates, casting doubt on the hypothesis that elections and selections are associated.

To sum, the data presented in Chapter 2 corroborates Lundell (2004, 25), whose bivariate analysis led him to conclude that "None of the institutional variables determines the degree of centralization of candidate selection". It further supports the notion that while electoral systems are a country-level characteristic, candidate selection procedures are a party-level factor, and that one should examine them in the appropriate level. The results, therefore, provide an additional rationale for the differentiation of electoral systems and selection processes when studying legislators' behavior. Chapters 3 and 4 treat candidate selection procedures and electoral systems as independent variables and examine how they influence legislators' behaviors. Both chapters appropriately differentiate selection processes from electoral systems and measure selection procedures at the appropriate level: the party level.

2.8   Appendix

Figure 2.10: Candidate Selection Frequencies
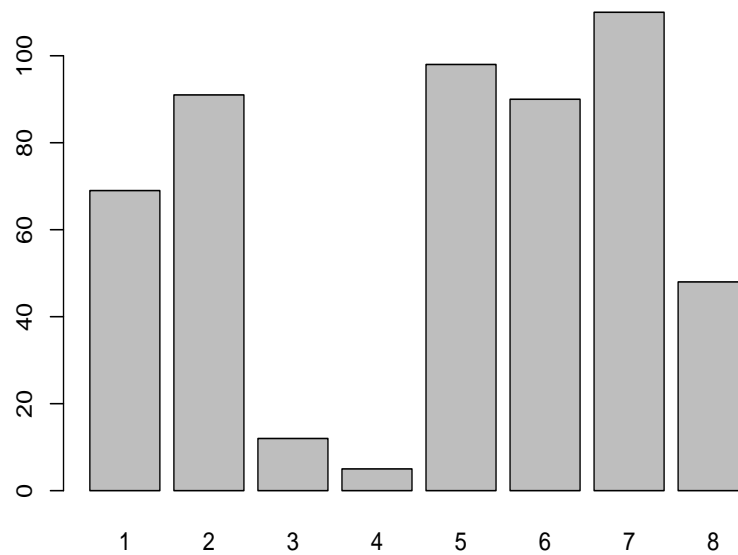
1: national party leadership up to 10 selectors
2: national party delegates
3: local party leadership up to 10 selectors subject to approval of national party
4: local party leadership up to 10 selectors (at the local level)
5: local party delegates, subject to approval of national party
6: local party delegates
7: primaries subject to approval of national party
8: primaries

Figure 2.11: Electoral Systems Frequencies
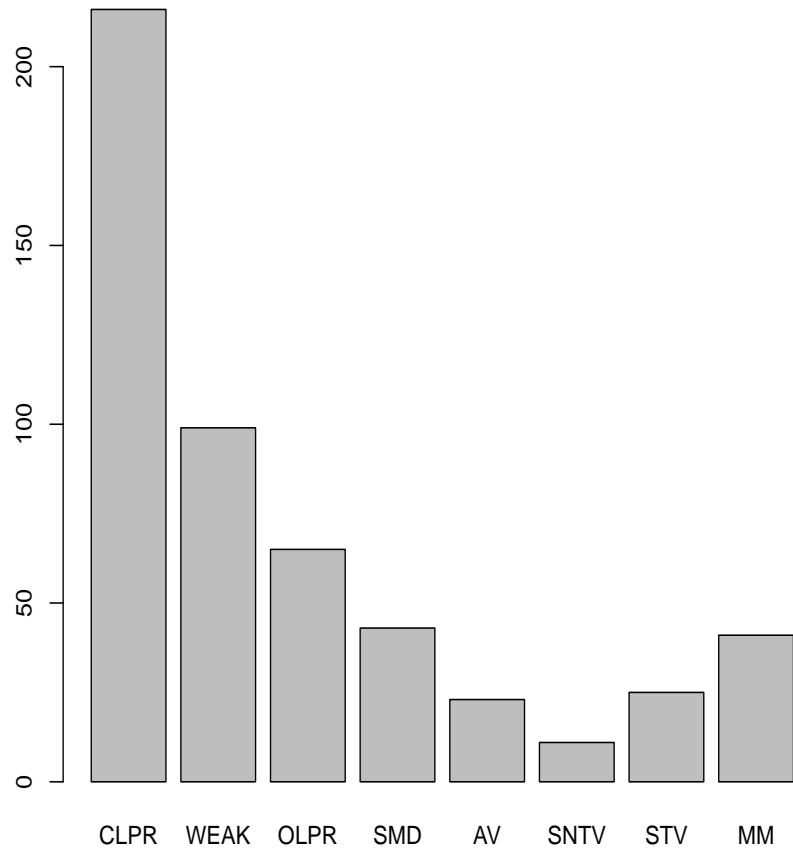
Figure 2.12: Proportion of Decentralization, CLPR Versus Other Electoral Systems
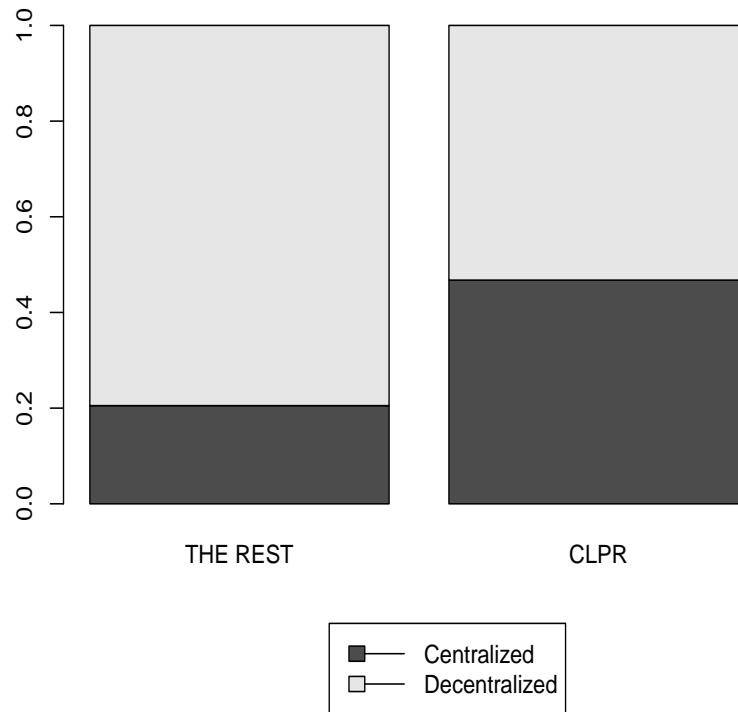
Figure 2.13: Selection Ballot: Israeli Labour Party 2008

Figure 2.14: Frequency of Selectorate by Centralization
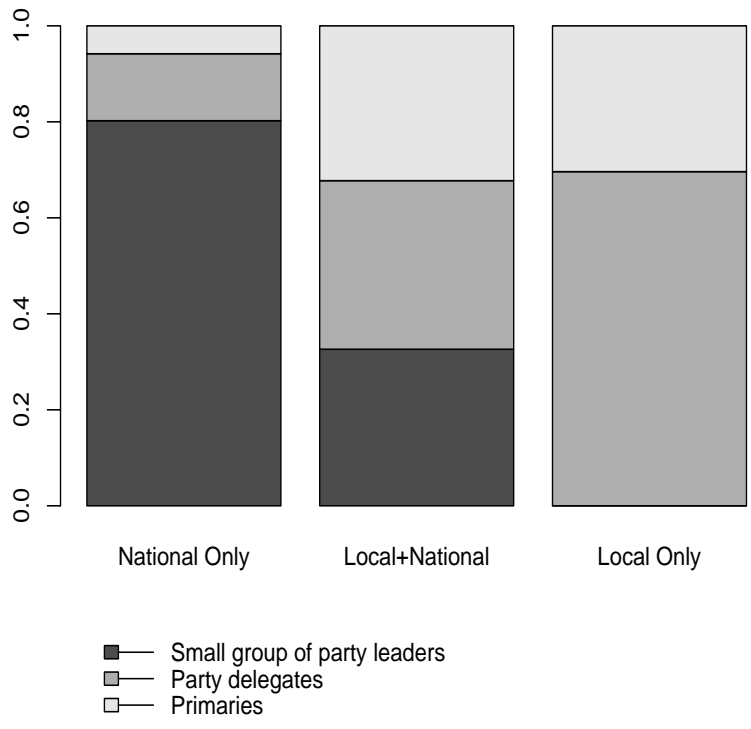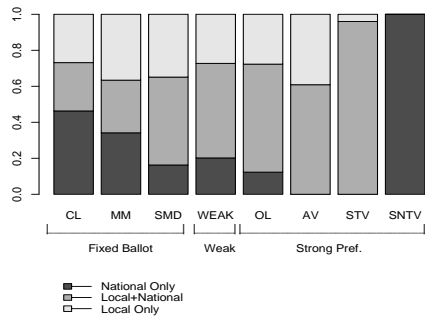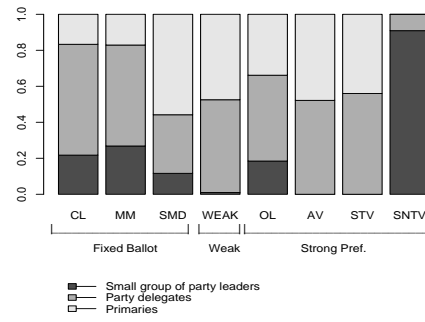
(a) Decentralization   (b) Selectorate

Figure 2.15: Proportions of Decentralization and Selectorate by Electoral Systems.

2.8.1   Variables, Measurements and Sources

Variables, Measurements and Sources	
Ballot Access	Uses the index presented at Figure 2.1. Data was collected from the following secondary sources: Andeweg (2000); Ansolabehere, Hirano and Snyder (2007); Bar (1996); Barnea and Rahat (2007); Baum and Robinson (1999); Bernard (1997); Bille (2001); Carty and Eagles (2003); Carty and Erickson (1991); Catt (1997); Cross (2002, 2004, 2006); De-Luca, Jones and Tula (2002); De-Winter (1988); De-Winter and Dumont (2000, 2006); Deegan-Krause (2006); Deschouwer (1992); Epstein (1967); Erickson (1997); Erickson and Carty (1991); Farrell (1994); Field and Siavelis (N.d.); Frizzell and Pammett (1997); Galligan (1999, 2002); Graham (1986); Hansen and Saglie (2005); Hazan (2002, 2006a); Hazan and Voerman (2006); Hopkin (2001); Jaensch, Brent and Bowden (2004); Janda (1980); Johns (2000); Jones (2008); Katz and Mair (1992); Koole and Leijenaar (1988); Kristjansson (2002); Kuitunen (2002); Langston (2008); Leijenaar and Niemoller (1997); Lundell (2004); Marsh (2005); Meseznikov and Gyarfasova (2006); Mikulska and Scarrow (N.d.); Miller (1999); Mitchell (2006); Montabes and Ortega (N.d.); Mulgan (2004); Muller (1994); Navia (2008); Norris and Lovenduski (1995, 1997); Obler (1973, 1974); Ohman (2004); Pammett and Dornan (2001); Pedersen (2002); Quinn (2004); Rahat (2002, 2008); Rahat and Sher-Hadar (1999); Rahat and Sheafer (2007); Rosenthal and Subrata (1969); Rush (1969); Sayers (1999); Scarrow (1996); Scarrow, Webb and Farrell (2000); Siavelis and Morgenstern (2008b); Svanur (2004); Szczerbiak (2001); Thiebaut (1988); Weeks (2007); Wertman (1988); Wiberg (2000); Wuhs (2006); Young and Cross (2002) as well as Rahat's data-set on candidate-selection processes, and Crisp et al. (2004) data-set on candidate selection procedures. Data for Nicaragua was obtained via personal communication with Prof. Santiuste (Santiuste, Salvador. {`ssanti@usal.es`} 2009, March.19. Information concerning Selection Processes in Nicaragua [Personal email]. (2009, March 19)). Data for Argentina 2005 was obtained via personal communication with Prof. Jones (Jones, Mark. {`mpjones@rice.edu`} 2009, April. 16. Thanks [Personal email]. (2009. April. 16.)). Data for Mexico was obtained via personal communication with Prof. Langston (Langston, Joy. {`joy.langston@cide.edu`} 2008 November 18. Thank You [Personal email]. (2008, November 18)).

Ballot Type	Measured as the degree to which voters have control over the ballot at the general election day. Codes fixed ballots as 0 when voters cannot change the list. Codes Weak Preferential ballots as 1 where predetermined list-order is important, but preferential vote can limit its effect. Codes strong preferential ballots as 2 where "preference votes are the sole basis on which individual legislators are chosen" (Karvonen, 2004, 207). The variable was coded using Lundell and Karvonen (2003). SMD systems with a single candidate presented to the voters at election stage are classified as fixed ballots 0 since voters may not disturb a "list" at the general election stage. On the other hand, if there is an SMD system where the ballot presents multiple candidate from the same party to the voters, voters might disturb the list, and their preferential vote is the only determinant of the candidate chosen, the ballot type is coded 2. Using this logic for classifying SMD, I classify Mixed Member systems as 0, since the CLPR tier and the SMD tier are both classified as fixed ballots: 0.
District Magnitude	Measures the average district magnitude from the viewpoint of the individual legislator. It is a weighted average of the district magnitudes in a country. The weights are calculated by how many legislators run in districts of each size. Thus, in a country with 50 single member districts, and one 150 member national district *District Magnitude* will be equal to $(150*150+50*1)/200$ equals to 112.75. Data was obtained from the Political Particularism around the World Data-set (Seddon, Gaviria, Panizza and Stein, 2002) and the Electoral Systems and the Personal Vote data-set (Johnson and Wallack, 2007).
Size	Measures the number of seats the party had in the period examined. Data was collected from Keefer's 2006 Database of Political Institutions (DPI), Woldendorp, Keman and Budge (2000), the CIA World Fact, Adam Carr's Election Archive [<http://psephos.adam-carr.net/>], PARLINE database on national parliaments (Inter-Parliamentary Union) [<http://www.ipu.org/parline-e/parlinesearch.asp>], The African Elections Database [<http://africanelections.tripod.com/>], The Election Resources on the Internet Database [<http://electionresources.org/>], The Australian Electoral Commission Election Results Archive [<http://results.aec.gov.au/>], The Knesset Web-Site [<www.knesset.gov.il>], Elections since the Italian Republic Data-set [<http://cronologia.leonardo.it/elezio2.htm>], The United Kingdom Election Results [<http://www.election.demon.co.uk/geresults.html>] and The Statistical Report on the General Elections, 1951 and 1957.

Electoral Systems	Measures one of eight categories of electoral systems: CLPR (1); Weak Preferential (2); OLPR (3); Single Member District (4); Alternative Vote (5); Single Non Transferable Vote (6); Single Transferable Vote (7); Mixed Members Electoral Systems [MMP+MMM](8). Data was obtained from the Comparative Data-Set on Political Institutions (Lundell and Karvonen, 2003) and the data-set of Democratic Electoral Systems Around the World 1946-2000 (Golder, 2005). The data was augmented, checked and corroborated using Alvarez-Rivera (N.d.) Lijphart (1995) (for South Africa) and Schafferer (2003) (for Taiwan).

Chapter 3

The Distinct and Combined Effect of Electoral Systems and Selection Processes at the Party Level

That party nominees will be equally observant of internal party procedures and equally respectful of party discipline when their nomination depends on the general electorate rather than on the party faithful seems to us improbable.

U.S Supreme Court
California Democratic Party et al. v.
Jones, Secretary of State of California et al.
[530 U.S 567 (581)]

3.1 Introduction

In 1996, the state of California decided to change how parties selected their candidates. California voters adopted Proposition 198 and abolished the party primaries in which candidates filed candidacy only for one party and only party member could take part in their party's primaries, practices effective as of 1959. The proposition replaced these closed party primaries with open primaries where all voters could vote in the primary elections, acting as the selectorate, and could take part in a party's selection processes regardless of their party's affiliation if they even had one (California Attorney General. 1996. Elections: Open Primary, Official Title and Summary. <`http://primary96.sos.ca.gov/e/ballot/prop198.html`> 1996.). Voters were, therefore, given the right to vote for candidates across party lines[1].

The California Democratic Party, the Libertarian Party of California, and the California Republican Party filed suit against the California Secretary of State Bill Jones, arguing that the blanket primaries are unconstitutional as they violate the parties' right of association. The United States Supreme Court, in a 7-2 opinion, ruled that the blanket primaries did violate parties' First Amendment right of association (the decision was delivered by Justice Scalia). The Supreme Court feared, among other things, that the change in candidate selection procedures would weakens parties' ability to discipline their members and argued that "a single election, in which the party nominee is selected by nonparty members could be enough to destroy the party" (California Democratic Party et al. v. Jones, Secretary of State of California et al. 2000, 579.).

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[1]This type of primary is also called a blanket primary.

In a similar vein, Key (1956) observed state legislative primaries in the United States. In his examination of American States' politics, he claimed that the direct primaries implemented by many states enhanced intra-party factional politics and partisan divisions: "the reality of politics in many states became the politics of intraparty factions. As the analysis of these matters proceeded, clues began to appear, which suggest that perhaps the new rules of the game—the direct primary—created circumstances that made difficult the maintenance and operation of...party organization. The new channels to power placed a premium on individualistic politics rather than on the collaborative politics of party" (Key, 1956, 169).

In May 2009, a scandal revealed that various British Members of Parliament (MPs) from the three main political parties abused their expenses to buy chandeliers and baby diapers, to pay mortgages, and to renovate their houses (Burns. John F. May 19, 2009. In Britain, Scandal Flows from Modest Request. New York Times.). The colossal scandal cost the speaker of the House of Commons his job. On March 11, 2010, the Crown prosecuted four MPs: Elliot Morley, Jim Devine, David Chaytor, and Paul White. The defendants pleaded not guilty to the charges against them (4 UK Lawmakers in Court Over Expenses Scandal. March 11, 2010. New York Times.). Other MPs implicated in the scandal, such as Douglas Hogg, announced that they will not run for re-election and intend to quit politics by the end of the legislative term (Burns. John F. May 19, 2009. In Britain, Scandal Flows From Modest Request. New York Times.).

The scandal evoked a public outcry. David Cameron, the Conservative Party leader, in an apologetic interview tried to mitigate the negative consequences of the scandal on citizens' mistrust in Parliament and politicians. Among other proposed

reforms, Cameron suggested to weaken the extensive demand for party discipline and to allow more free votes. He also called for a further widening of the selectorate: "I want to see more open primaries in the future" (Cameron. David. May 25, 2009. Why I want to open up candidate selection. The Daily Telegraph.). In other words, Cameron wanted to allow non-party members to get involved in the selection process. To justify this proposition, Cameron claimed that "party hierarchies have always been nervous of anything that isn't within their control. But people want to have more control over politics, and I want to give it to them" (Cameron. David. May 25, 2009. Why I want to open up candidate selection. The Daily Telegraph.). "In time", Cameron said, "this will have a transformative effect on our politics, taking power from the party elites and the old boy networks, and giving it to the people" (Cameron, David. May 26, 2009. Fixing Broken Politics. <`http://www.epolitix.com/latestnews/article-detail/newsarticle/`
`david-cameron-fixing-broken-politics-speech-in-full/`>).

The above anecdotes illustrate the importance of intra-party candidate selection processes in general and their potential influence on legislators' behavior. Legislators who seek to gain re-election understand that how they gain permission to use the party's banner is a part of their institutional environment. This institutional environment creates incentives and constraints on how legislators cater to their constituents, the degree to which they emphasize the collective unified party reputation instead of their own individualistic behavior, and how they perceive their representation styles. Electoral systems and intra-party candidate selection processes are among the most consequential institutions.

Chapter 2 introduced the necessary distinction between *Ballot Access*, intra-party candidate selection processes, and *Ballot Type*. I then examined the wisdom of combining elections and selections into a single factor and whether the electoral system dictates, to a great extent, candidate selection processes. I found no support for it. Chapter 3 goes a step further to examine how legislators react to the simultaneous concurrent effects of electoral systems and candidate selection processes. After discussing the state of the literature, I present my theory and deduce hypotheses concerning the separate and combined effects of selections and elections on legislators' behavior. Focusing on the differing levels at which electoral systems and candidate selection procedures operate, country and party levels, respectively, I test the hypotheses using party-level models. In the last part of the chapter, I discuss the results and their implications for legislators' behavior and policy outcomes.

3.2 Electoral Systems, Candidate Selection Processes, and Legislators' Behavior

Political institutions influence, to a great extent, how legislators behave. Electoral systems and intra-party candidate selection procedures are among the chief institutions that create incentives and constraints on how legislators cater to their prospective electorates and selectorates and how much they emphasize their personal distinct reputation over the common reputation of their parties (Bowler, Farrell and Katz, 1999; Carey and Shugart, 1995; Gallagher and Marsh, 1988; Hazan, 2000; Mainwaring and Shugart, 1997). Legislators who seek to maximize their probability of getting re-

elected[2] will adhere to the incentives and constraints electoral systems and candidate selections create, and they will adjust their behaviors accordingly[3].

To win re-election and to extend their political careers, legislators must cultivate both personal reputations and party reputations. A legislator achieves a personal reputation by enhancing one's own name recognition and by emphasizing his or her individual behavior and distinctiveness from his fellow co-partisan colleagues. A personal reputation distinguishes a legislator from all other candidates, including those in his or her own party. A legislator cultivates a party reputation by emphasizing the collective unified reputation of the party and by adhering to party leaders' wishes and interests. Carey and Shugart (1995, 419) argue that "maintaining a [party Y.S] reputation requires that politicians refrain from taking positions or actions that conflict with the party's platform" (see also: Norris (2004)). Emphasizing a party reputation distinguishes a legislator from candidates in other parties but not from his or her co-partisans. Electoral systems and intra-party candidate selection processes influence the balance that legislators strike between cultivating a party and a personal reputation.

While all legislators consider how to cultivate both their personal reputations and the reputations of their parties, the balance that legislators strike between the two

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[2]This dissertation's theory and hypotheses stem from assuming that legislators try to maximize their probability of gaining re-election (similar to Persson and Tabellini (2002)). While it is likely parliament members are not single minded and seek to realize multiple goals (Fenno, 1978; Strom, 1997), and while the balance among these goals differs across legislators (Searing, 1994), all legislators face re-election unless re-election is prohibited or unless they have decided to quit politics. Since re-election is a preliminary necessary condition to fulfilling other goals politicians possess, I adopt the assumption made by Mayhew (1974, 16-17) that re-election "underlies everything else...".

[3]Calvert (1998) presents a different theory of institutions. He critiques the perception of institutions as constraints and suggest that institutions are aggregations of behaviors.

depends upon the institutional context within which they operate. To a large extent, this balance is a factor of the electoral rules that govern how legislators are elected and re-elected (Bowler, Farrell and Katz, 1999; Carey and Shugart, 1995; Gallagher and Marsh, 1988; Hazan, 2000; Mainwaring and Shugart, 1997). Electoral rules create constraints and incentives on how legislators cater to their prospective supporters and constituents. For example, in a CLPR system, party leadership arguably exercises a strong control over legislators' probability of gaining re-election, and voters can cast a single vote at a party level. Therefore, legislators face incentives to adhere to party leaders' wishes and to maintain a cohesive collective disciplined party record. For example, South Africa uses a CLPR system where the ballot contains the symbols and names of the party. In addition, the party leaders' names appear, but the ballot gives no lists of individual candidates. Voters simply choose the party they prefer. Under such a system, legislative candidates need not differentiate themselves from their co-partisans. This system offers minimal incentive to emphasize a personal reputation. Under such systems one anticipates that legislators will emphasize their party's collective reputation.

As opposed to CLPR systems, in fully OLPR countries, party leaders have no control over the final rank of candidates on the ballot at the general election. This means that candidates compete not only with rival parties but with rivals within their own party and must distinguish themselves from their co-partisans by emphasizing their personal reputations. Thus, in Finland or Brazil, voters vote for their preferred legislative candidate, and the total number of seats gained by the party is calculated based on the total number of votes its candidates received. The order by which each candidate is elected is determined by the total votes each individual candidate received. Hence, these systems encourage individual legislators to compete with their

co-partisans to maximize their re-election probabilities (Ames, 1995; Mainwaring and Perez, 1997).

Specifically, scholars have hypothesized that four aspects of the electoral system influence the incentives to cultivate a personal or a party reputation. Carey and Shugart (1995), in their seminal study, ranked ordered electoral systems based on three variables that influence personal vote-seeking by individual members. First, *Ballot*, which measures the degree to which party leaders have control over the access to and the rank on the party's ballot. Second, *Pool*, measures whether votes for a candidate also determines the seat share of the sub-party or the party. Third, *Vote*, distinguishes between instances in which voters cast a single-party vote, multiple candidates vote, or a single vote at a sub-party level. Thus, Carey and Shugart (1995) argued that these factors influence how much legislators will enhance their own personal reputation at the expense of their parties or vice versa. Finally, the fourth aspect *district magnitude* (M—a proxy for the N:M ratio, where N is the number of co-partisans in a district, and M is the district magnitude—(but see: Crisp, Jensen and Shomer (2007))) has an inverse relationship with incentives to emphasize a personal reputation. Thus, M increases incentive for personal reputation as it increases if the electoral system is characterized by co-partisan competition, but it decreases incentives for personal vote as it increases if the electoral formula encourages party-centered behavior.

Based on Carey and Shugart's theoretical arguments, scholars have examined the influence of electoral systems and the inverse relationship of M on legislators' behavior through a case study prism (Chang and Golden, 2006; Crisp and Ingall, 2002; Desposato, 2006*a*; Samuels, 1999; Tavits, 2010) as well as a cross-country framework

(Crisp et al., 2004; Hallerberg and Marier, 2004; Norris, 2004; Shugart, Valdini and Suominen, 2005). All in all, the empirical evidence provides only a partial support for Carey and Shugart's arguments.

Intra-party candidate selection procedures, as I mentioned in Chapter 2 are how parties determine which candidates will represent that party on the ballot in the general election. For example, before the 1998 elections in Denmark, the central executive board of the Danish People's Party under the leadership of Pia Kjaersgaard selected the candidates in each of the 17 electoral constituencies (Pedersen, 2002), whereas, in Australia, candidate selection processes vary by party-state. Before the 1996 elections, the Australian Labour Party in New South Wales used direct votes of local branch members to determine its candidates, but, in South Australia, district and state delegates selected the Australian Labour party's candidates (Johns, 2000).

Scholars have also theorized that how parties select candidates shapes legislators' behavior similar to the way electoral systems constrain and incentivize behavior (Giannetti and Benoit, 2009; Pennings and Hazan, 2001; Rahat and Hazan, 2001). Not only can party leaders better control the composition of the party's label through centralized selection processes, thus increasing cohesion levels (Sieberer, 2006), but they also have a disciplinary tool with which to punish reluctant legislators. If a legislator defies the party's line and refuses to vote according to the party leaders' recommendations, party leaders can punish the legislator in the next election by not re-nominating him or her. Thus, some have argued (Bowler, Farrell and Katz, 1999; Carey and Shugart, 1995; De-Luca, Jones and Tula, 2002; Faas, 2003; Gallagher and Marsh, 1988; Hazan, 2000; Mainwaring and Shugart, 1997; Obler, 1973) that when party leaders select legislators, the legislators face incentives to behave in a party-

centered manner, to accentuate their conformity with the party's ideological stances, and to emphasize their loyalty to their party in general and to the party leaders in particular. On the other hand, when legislators are selected by more permissive procedures such as party primaries they face incentives to emphasize their personal reputations, records, and behaviors as they struggle to distinguish themselves from their co-partisans for a relatively amorphous selectorate. Thus, one expects legislators selected via permissive nomination processes to highlight their efforts to encourage the building of a new factory in their district, to showcase bringing funds to their district, and to emphasize their distinguished personal reputations by deviating from the party's line. Legislators selected by concentrated centralized manners will behave in a party-centered way. In other words, variations in candidate selection processes shape divergent relationships between representatives and their parties and encourage different patterns of behavior (Hazan, 1999).

Opposing the myriad empirical examinations of the influence of electoral systems on legislators' behavior (See: Footnote 1 in Chapter 2), the literature on candidate selection processes treats this institution mainly as a dependent variable to explain. Therefore, the majority of the literature describes and explains why a party decides to choose a certain type of selection mechanism (Bille, 2001; Carty and Blake, 1999; De-Luca, Jones and Tula, 2002; Hazan, 1997; Johns, 2000; Katz, 2001; Krouwel, 1999; LeDuc, 2001; Lundell, 2004; Pennings and Hazan, 2001; Rahat, 2002; Wu, 2001) and how selection processes vary over time (Bar, 1996; Barnea and Rahat, 2007; Baum and Robinson, 1999; Hazan and Voerman, 2006; Leijenaar and Niemoller, 1997; Rahat, 2008). In recent years, research has begun to treat candidate selection processes as an independent variable, examining its influences on legislators' behaviors (Akirav, 2010; Bowler, Farrell and Katz, 1999; Hallerberg and Marier, 2004; Shomer, 2009;

Shugart, Valdini and Suominen, 2005).

Both, electoral systems and intra-party candidate selection procedures are an important part of the institutional context that shapes the incentives faced by (re)election-oriented legislators. While most of the literature combines elections and selections, effectively conceiving of them as one factor, I theorize about their distinct and concurrent effects. First, as I have argued in Chapter 2, electoral systems and intra-party candidate selection processes are two distinct institutions that usually operate at two different levels of analysis, country and party levels. By differentiating selections from elections as in Chapter 2, I account for intra-country cross-party variation in selection processes and therefore for intra-country cross-party variations effect on legislators' behavior. In addition, as the results from Chapter 2 indicate, the assumption that electoral systems and intra-party candidate selection processes, or more specifically *Ballot Type* and *Ballot Access*, are strongly correlated is not corroborated. Moreover, the incentives for behavior created by electoral systems and candidate selection procedures need not align. I argue that scholars need to allow for the possibility that electoral systems and candidate selection procedures might create contradictory incentives for legislators' behavior. Lastly and importantly, I argue that since parliament members are influenced by elections and selections simultaneously, one must theorize about their concurrent simultaneous effect on legislators' behavior. In what follows, I propose a theory concerning the separate and combined effect of elections and selections on legislators' behavior. Section 3.4 presents the research design and models, whereas Section 3.5 presents the party-level models' results. Section 3.6 concludes the chapter by summing the results.

3.3 The Distinct and Combined Effect of Electoral Systems and Candidate Selection Processes on Legislators' Behavior

Legislators operate within complex institutional systems that regulate to a large extent how they behave. Unlike most literature on the topic, I argue that one should examine how electoral systems and candidate selection processes, as distinct institutions, concurrently affect representatives. Only by differentiating selections from elections and then theorizing about their concurrent effect can one account for potentially contradictory incentives faced by legislators. Moreover, divorcing the factors, one can account for the appropriate levels at which elections and selections operate and hence for intra-country cross-party variation in selection processes and legislators' behavior.

Most literature on legislators' behavior amalgamates elections and selections. This amalgamation stems from a foundational theory on legislators' behavior. Carey and Shugart (1995) combined electoral systems and candidate selection procedures and conceived theoretically and empirically of candidate selection procedures as a partial component of the electoral system. Carey and Shugart's *Ballot* variable measured the degree to which party leaders control the access to and the rank on the party's ballot. While the electoral system partially defines this characteristic, for example OLPR versus CLPR, the internal procedures that parties adopt to select their lists and candidates also define it. As mentioned earlier, combining selections and elections does not allow one to account for the separate effect of selection procedures and the possibility that elections and selections might produce conflicting incentives for

legislators' behavior. For example, when a party uses primaries in a CLPR electoral system, as Israeli Labour party did in 1996, its legislators face conflicting incentives. The electoral system encourages party-centered behavior, but the selection process encourages personal vote-seeking behavior.

Often empirical analyses that stemmed from Carey and Shugart's seminal work completely neglected to account for candidate selection procedures separately, adopting the amalgamation from Carey and Shugart's article (Carey, 2009; Chang and Golden, 2006; Hallerberg and Marier, 2004; Shugart, 2001b; Shugart, Valdini and Suominen, 2005). When the literature differentiates between selections and elections and regards their combined effect, it mostly considers the combined influence as an additive factor (Crisp, 2007; Crisp et al., 2004; Depauw and Martin, 2009; Mitchell, 2000).[4] Thus, these scholars fail to consider that the effect of candidate selection processes on legislators might depend on a country's electoral system and vice versa. Likewise, research that concentrated on intra-party candidate selection processes either treated them as an undifferentiated component of the electoral system (Hallerberg and Marier, 2004; Shugart, 2001b; Shugart, Valdini and Suominen, 2005) or as a distinct factor, hypothesizing and examining its distinct separate effect, overlooking the combined effect of elections and selections on legislators' behavior (Bar, 1996; Bowler, Farrell and Katz, 1999; Hazan and Rahat, 2006; Pennings and Hazan, 2001; Shomer, 2009). When scholars examine the combined effect of electoral systems and candidate selection procedures, they treat them additively (Crisp et al., 2004; Depauw

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[4]But see: Hix (2004) and Cross (2008) for a discussion about conditional combined effects of elections and selections on legislators' behavior. It is interesting to note that the Cross (2008) hypothesis about the conditional effect is opposite to mine. He argues that the effect of selections should be larger under restrictive electoral systems such as CLPR. He does not provide empirical analysis to support his assertion.

and Martin, 2009; Mitchell, 2000; Sieberer, 2006).

Although the literature adopted Carey and Shugart's (1995) conceptualization of the *Ballot* variable that combines selections and elections into one indicator, I argue that we should split it to *Ballot Type*, an electoral-system characteristic that measures how much voters control the ballot at the general election stage, and *Ballot Access*, a party-level characteristic that captures the intra-party candidate selection processes used by parties (See: Section 2.2 in Chapter 2 for more details). These two separate indicators allow me to account for the distinct effect of intra-party candidate selection processes and the distinct effect of electoral systems on legislators' behavior.

Hypothesis 1 depicts the distinct effect of electoral systems on legislators' behavior. Similar to arguments in the literature, I argue that the more permissive the electoral systems is, that is the more *Ballot Type*, *Pool*, and *Vote* encourage intra-party competition and incentivize legislators to differentiate themselves from their co-partisans and to enhance their own name recognition and individualistic behaviors, one should observe less disciplined parties (Hazan and Voerman, 2006; Norris, 2004; Sieberer, 2006). Similarly, when *Ballot Type* does not invest power in the hands of voters to change the party's banner on election day, when the electoral system *Pools* votes at the party level to calculate vote-to-seat allocation, and when the electoral system gives voters a single *Vote* at the party level, one should observe greater party discipline[5] (Cox and McCubbins, 1993; Gallagher and Marsh, 1988; Hazan and Voerman,

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[5]In this dissertation, I do not differentiate between party cohesion, party discipline, and party unity and use these terms interchangeably. For certain, cohesion and discipline are two distinct concepts (Cox, 1987; Hazan, 2006b; Krehbiel, 1993; Ozbudum, 1970). But, for the current analysis, it does not matter whether one examines discipline or cohesion. The analysis does not differentiate whether restrictive selection processes enable party leaders to punish their reluctant rank and files, that is, discipline, or whether it enables them a priori to select a more homogenous group of rank and

2006; Holcombe and Gwartney, 1989; Norris, 2002, 2004).

Hypothesis 1: separate effect of electoral systems: The more permissive an electoral system is where *Ballot Type, Pool* and *Vote* encourage personal vote seeking incentives, the less discipline one should observe and vice versa.

Hypothesis 2 presents the distinct effect of intra-party candidate selection processes on legislators' behavior. I argue that the more permissive the selection procedure a party uses, the less disciplined party one should observe. When selection processes are decentralized and inclusive, they intensify the intra-party competition among candidates as they search to maximize their probability of getting re-selected. Thus, legislators have incentive to emphasize their personal reputations and behaviors at the expense of their parties to differentiate themselves from their co-partisans. On the other hand, when selection processes are restrictive and small group of national party leaders controls selection, one should observe a more disciplined party. Under these circumstances, the selection procedures are a tool by which party leaders can enforce discipline and punish a reluctant legislator (Bowler, Farrell and Katz, 1999; Gallagher and Marsh, 1988; Hazan, 2000).

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file, that is, cohesion. Similarly, I do not differentiate whether it is permissive decentralized selections that cause district voters to punish their legislators if they do not represent voters' interests at the expense of the party, that is, discipline by the voters, or whether, the heterogeneity across the districts in terms of selectors' preferences, interests, and demographics leads to a heterogeneous group of selected MPs, that is, less cohesion. While I acknowledge the differences between cohesion and discipline and the difficulty of differentiating among them in light of empirical equivalence, I do not think this distinction is important for the current research.

Hypothesis 2: separate effect of selection processes: the more permissive the selection process is the less one should observe party discipline and vice versa.

Having accounted for the distinct separate effect of electoral systems and candidate selection processes, one can now theorize about their combined concurrent conditional effect on legislators' behavior. As both institutions affect legislators concurrently, one needs a theory to explain their combined influence. I argue that the influence of selection processes on legislators' behavior depends upon the country's electoral system, or more accurately, on the degree to which voters can modify the ballot in the general elections, that is, *Ballot Type* (and vice versa). This assertion stems from the observation that either restrictive *Ballot Type* or restrictive *Ballot Access* provides party leaders with the ability and rational for maintaining high degree of discipline. With regards to *Ballot Type*, to the degree to which the voters do not control the party's ballot at the general election stage and cannot change it (fixed ballots), the party's collective brand name becomes more important in securing a legislator's re-election goal. The increase in brand name importance has two consequences. First, for legislators, because the more votes and hence seats (if one assumes perfect proportionality) the party receives, the greater the probability of a legislator to win re-election, the more collective brand name is important and the more a legislator faces incentives to maintain high party discipline. Second, fixed *Ballot Type* provides party leaders in these systems with means to encourage legislators to toe the party's line and to behave in a disciplined manner. The more unified the party's record is, the more likely it will win more votes and seats (Cox and Rosenbluth, 1995; Cox and McCubbins, 1993; Giannetti and Benoit, 2009; Owens, 2003; Strom, 1990). This increases the chances that a typical legislator will gain re-election. Indeed Holcombe and Gwartney (1989) argued that political parties that

seek to protect their brand name will monitor legislators and will discourage individu-alistic opportunistic behavior by their members. On the other hand, when the voters control the ballot at the general election stage, candidates face intra-party competi-tion at the general election stage. This encourages them to emphasize their personal reputations and to distinguish themselves from the co-partisans on the ballot.

Similarly, with regards to *Ballot Access* when party leaders and not the selec-torate control access to the ballot at the selection stage, party leaders have tools to discipline legislators and to enforce unity. On the other hand, when parties have permissive selection processes, intra-party competition intensifies, and party leaders have fewer tools to induce discipline. Thus, one should observe less cohesion. As I have argued, when selection processes are restrictive, party leaders can threaten to punish reluctant legislators by not re-nominating them at the next election stage.

Thus, both electoral systems and candidate selection processes, when they bestow control to the hands of party leaders at the expense of the voters, provide party lead-ers means to induce and to enforce discipline. Therefore, I argue that selections and elections are substitutive tools. When restrictive Ballot Type or restrictive Ballot Access induces discipline, elections and selections are alternatives to one another in their ability to induce cohesive unified parties and to encourage legislators to behave in a party-centered manner.

Hence, under stringent restrictive electoral systems that create incentives for leg-islators to behave in a party-centered manner, the effect of candidate selection proce-dures is almost redundant. The electoral system, specifically the *Ballot Type*, already ensures that legislators will behave in a party-centered manner, will toe the party line,

and will maintain high levels of discipline. Even if under such a system, the party uses democratized permissive selection mechanisms expected to induce personal vote-seeking behavior, such as primaries, the electoral system's incentives will ensure the legislators behave in a party-centered manner and maintain a cohesive unified party record to increase probability of their re-elections. Under these circumstances, the effect of candidate selection procedures should not be great. The *Ballot Type* will ensure cohesion regardless of the type of intra-party candidate selection processes.

On the other hand, selection processes matter under permissive electoral systems that encourage legislators to emphasize their personal reputations, to break the party's line, and to exhibit unique undisciplined behavior. Since the electoral system, specifically the *Ballot Type*, does not encourage discipline and creates personal vote-seeking incentives, to the degree to which candidate selections give party leaders control and produce party-centered incentives, one should observe legislators adhering to the party line and maintaining a cohesive unified party record. Thus, under permissive *Ballot Type* we should anticipate a restrictive candidate selection process will mitigate the electoral system's incentives and will ensure a relatively high degree of discipline.

Similarly, under restrictive intra-party candidate selection procedures that encourage legislators to toe to their party's line, the effect of electoral systems, and specifically of *Ballot Type*, on legislators' behavior should be minimal. Regardless of the *Ballot Type*, the selection procedure will ensure high degree of discipline. On the other hand, when parties use permissive selection processes, the effect of electoral systems should be meaningful: if the *Ballot Type* is fixed, legislators and party leaders have incentives to enhance a collective party reputation to increase the party's vote

and seat shares.

Hypothesis 3 depicts this conditional effect. I argue that under electoral systems that encourage party-centered behavior and therefore induce unified, disciplined parties, the influence of intra-party candidate selection procedures on legislators' behavior should be small because the electoral system already ensures a high degree of discipline. On the other hand, where the electoral system is permissive and encourages personal vote-seeking behavior, selection processes matter more. Specifically, the more restrictive the selection process, the more discipline one should observe[6].

Hypothesis 3: the combined conditional effect of elections and selections: The effect of candidate selection procedures on legislators' behavior should be greater under permissive than under restrictive electoral systems and vice versa.

Figure 3.1(a) portrays a simplified schematic presentation of the distinct and conditional combined effects of electoral systems and intra-party candidate selection processes on legislators' behavior. The y-axis presents levels of party cohesion, which

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[6]The three hypotheses presented thus far assume that party leaders care about discipline and would like to maintain, as much as they can, a cohesive unified party record. The literature supports this assumption. Scholars argue that party leaders want to maintain disciplined parties as it enhances the party's electoral performance (Aldrich, 1995; Bawn, Cox and Rosenbluth, 1999; Cox and Rosenbluth, 1995; Cox and McCubbins, 1993; Owens, 2003; Pearson, 2008; Strom, 1990). In addition, cohesive parties like other institutions (North, 1990, 1998) help to reduce transaction costs in logrolling and to decrease legislative unpredictability (Aldrich, 1995; Cox and McCubbins, 2005; Ozbudum, 1970; Rohde, 1991; Sinclair, 1995). Cohesive parties increase legislative efficiency and reduce common pool resource problems, which are especially acute in personal vote-seeking electoral systems (Barber, 1966; Cox, 1987; Diaz-Cayeros et al., 2003; Hallerberg and Marier, 2004; Hazan, 2006b). Lastly, in parliamentary systems, party unity is essential for governmental survival (Agh, 1999; Huber, 1996; Lijphart, 1999). Moreover, recent research has shown that the less cohesive the parties in a coalition are, the less stable the coalition itself is. Thus, for a party to be a viable potential coalition partner, a party leader wants to present a picture that he can control his rank and file and can maintain a unified party record (Druckman, 1996; Giannetti and Benoit, 2009; Groennings, 1970; Saalfeld, 2009).

one can think of as Rice Cohesion scores. The x-axis portrays the range of electoral systems according to how they encourage personal vote seeking behavior. The left side shows the restrictive electoral systems that induce party-centered behavior, such as CLPR. The right side of the x-axis shows permissive electoral systems that encourage legislators to break with the party line and to emphasize their personal reputations, such as Single Non-Transferable Vote. The solid line indicates selection by a restrictive process such as one national party leader selects. The dotted line indicates selection by a permissive process such as open localized primaries. The negative slope of these lines indicates the separate effect of electoral systems on legislators' behavior. Specifically, it indicates that in electoral systems with strong incentives for personal vote-seeking behavior, one observes lower levels of cohesion compared to electoral systems with incentives for party-centered behavior.

(a) Conditional Combined Effect   (b) Additive Combined Effect
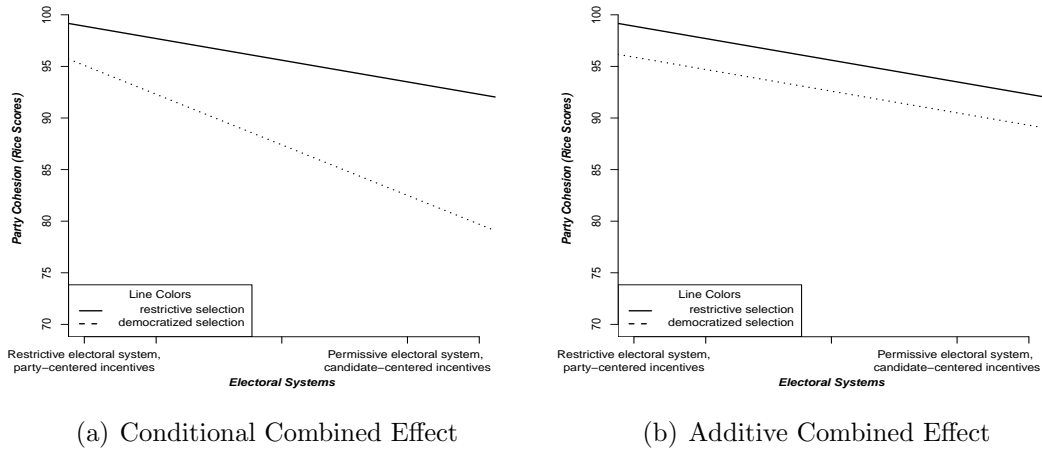
Figure 3.1: Conditional versus Additive Combined Effect of Elections and Selections

Regarding the separate influence of candidate selection processes on legislators' behavior, one can observe that restrictive selection processes are hypothesized to

create incentives for legislators to toe the party's line, to adhere to party leaders' wishes, and to emphasize the collective party reputation. Indeed, Figure 3.1(a) shows that the intercept and the whole line representing restrictive candidate selection processes is higher than the line of the permissive, democratized selection procedures. Thus, one hypothesizes that permissive candidate selection processes encourage legislators to emphasize their personal reputations, to distinguish themselves from their co-partisans, and to exhibit lower levels of cohesion (Bowler, Farrell and Katz, 1999; Faas, 2003; Hazan, 2002, 2000; Mainwaring and Shugart, 1997; Shugart, 2001a).

Figure 3.1(a) portrays the conditional combined effect of candidate selections and electoral systems by the varying gap between the solid and dotted line as one moves from the most restrictive to the most permissive electoral system on the x-axis. As I argued earlier, the amount of influence of candidate selection procedures depends upon how much the electoral system induces discipline. Under electoral systems in which party leaders have strong control over ballot such as CLPR, the effect of selection procedures should be minimal. On the other hand, in permissive electoral systems that do not provide party leaders with the ability to induce discipline and that encourage legislators to behave in a personal vote seeking manner, the effect of candidate selection procedures should be greater. Thus, in Figure 3.1(a), one sees that the gap between restrictive and permissive selections is wider at the right side of the figure where electoral systems are permissive than it is at the left side of the figure where the electoral system induce party-centered incentives[7].

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[7]I could have, of course, displayed this figure such that candidate selection processes are on the x-axis and the different *Ballot Types* are depicted via different lines within the figure.

Figure 3.1(b) depicts an <u>additive</u> combined relationship between elections and selections that is prevalent in the literature. As opposed to my hypothesized conditional combined effect, if the additive relationship is correct, the gap in behavior between selection in the most restrictive and in the most permissive processes should be the same regardless of electoral system. In other words, the effect of selection procedures is constant, regardless of electoral systems and vice versa.

If my theoretical arguments are correct and the effect of selection procedures depends upon the type of *Ballot Type* and vice versa, one should observe intra-country variation in legislators' behavior across parties that use different candidate selection processes. One should also observe cross-country variation when countries use different electoral systems. Moreover, if my theory is supported, one should observe that the magnitude of the influence of intra-party candidate selection processes on legislators' behavior depends upon the *Ballot Type* a country has. In other words, one should observe that legislators or parties selecting with permissive procedures always exhibit less party-centered behavior compared to their counterparts (elected under the same electoral system), who are selected via restrictive mechanisms. But, moreover, one should observe the difference in behavior between legislators selected in permissive and restrictive selection processes to be greater under electoral systems characterized by a strong preferential *Ballot Type* than under electoral systems with fixed ballots (see Figure 3.1(a)).

In what follows, I present empirical analyses at the party level in Section 3.5 to support the theoretical account presented above. Section 3.4 presents the research design, models, and data I used to test the hypotheses. In subsection 3.5.1 I present party-level models that measure the outcome variables, legislators' behavior, at the

party level using Rice cohesion scores. In 3.5.2 I test the hypotheses using Weighted
Rice cohesion scores. Section 3.6 discusses the results and provide some conclusions.

3.4   Data, Operationalization, and Models

In this section, I specify the research design, the data, and models used to test
my theory concerning the distinct and combined conditional effect of electoral sys-
tems and intra-party candidate selection processes on legislators' behavior. As I
emphasized earlier, electoral systems and candidate selections operate at different
levels. Electoral systems operate at the country level, while selection procedures are
a party-level characteristic. Therefore, the research design and methodological tools
will take advantage of this hierarchical nature of the problem at hand.

The party-level models presented in this chapter use a two-level varying-intercept
varying-slope hierarchical model where parties, the lower-level unit of analysis, are
nested within countries. In these models, the response variable is legislators' behav-
ior measured at the party level. More precisely, the outcome variable measures how
much legislators emphasize their own personal reputations and behaviors at the ex-
pense of the collective unified reputation of their parties, that is, personal- versus
party-centered behavior.

The kinds of activities that bolster a party's collective reputation might include
a cohesive voting record where legislators do not cross the party line and maintain a
cohesive party record that might provide voters with better clues as to which party
to elect. Indeed, the existing literature suggests that incentives to cultivate a party

vote should increase party discipline and make legislative blocs more cohesive (Cox and McCubbins, 1993; Gallagher and Marsh, 1988; Hazan and Voerman, 2006; Holcombe and Gwartney, 1989; Norris, 2002, 2004). Similarly, the kinds of activities that bolster a legislator's personal reputation might include deviation from party leaders' directions on how to vote on policy issues (Hazan and Voerman, 2006; Norris, 2004; Sieberer, 2006; Tavits, 2009), so that the vote choice better matches the preferences of the legislator's constituency and differentiates him or her from co-partisans. If legislators are to build reputations that they do not share with other party members, they must, at least a good deal of the time, look like "mavericks" rather than loyalists (Hazan, 1999, 2000). Indeed, Bowler, Farrell and Katz (1999, 12) argue that "if elections stress the (...) particular, then one would reasonably expect reelection-motivated candidates to be less willing to submit to the confines of party discipline for prolonged periods".

In subsection 3.5.1 I operationalize the outcome variable using Rice cohesion scores, which calculates for each party the difference between those who voted yea and those who voted nay on a certain vote divided by the total number of voters. Rice scores rage from 0 to 1, where 0 indicates that the party was split 50-50, and 1 indicates a perfect unity[8](Rice, 1928). In subsection 3.5.2, I use Weighted Rice scores (Carey, 2009; Morgenstern, 2004) to measure legislators' behavior. This measure weighs the Rice scores according to the closeness across the whole legislature so

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[8]There are several limitations and pitfalls with the Rice score measure. First, it fails to take into account absences and abstentions. Hix, Noury and Roland (2005) suggested using an Agreement Index that takes into consideration abstentions. Landi and Pelizzo (2006) proposed extending the Agreement Score Index to include absences as well, as it made a difference when analyzing the Italian chamber. Desposato (2005) provided evidence for the bias that exists in Rice scores for small groups. He proposed using a measure of the expected Rice score that corrects for this bias. Future research will examine each of these measures.

that the more lopsided the vote is, the less weight it receives in the final calculation of the Weighted Rice score.

Rice scores are defined as:

$$RICE_{pj} = \frac{|AYE_{pj} - NAY_{pj}|}{AYE_{pj} + NAY_{pj}}, \text{ for party } p \text{ on vote } j. \tag{3.1}$$

where I average across j to get party-level Rice score index.

The Average Weighted Rice scores are defined similar to Morgenstern (2004) as:

$$AWRICE_p = \frac{\sum_{j=1}^{n} RICE_{pj} * WEIGHT_j}{\sum_{j=1}^{n} WEIGHT_j}, \text{ for party } p. \tag{3.2}$$

where $RICE_{pj}$ is defined as in Equation 3.1, and n is the total number of votes. The weight of vote j—$WEIGHT_j$—is defined as:

$$WEIGHT_j = 1 - \left| \frac{AYE_j - NAY_j}{AYE_j + NAY_j} \right| \tag{3.3}$$

Morgenstern (2004) and Carey (2009) argued that one should incorporate the closeness of the vote while calculating Rice cohesion scores. To this end, they proposed using the Weighted Rice score which discards unanimous votes and lessens the weight of lopsided votes in the final weighted score. In this chapter, I present models for both Rice and Weighted Rice scores.

The main explanatory variables of interest measure electoral systems' incentives to cultivate a personal vote and intra-party candidate selection procedures at the party level. With regard to the electoral system, I use the three variables advocated by Carey and Shugart (1995) *Ballot, Pool*, and *Vote*, as well as the average *District Magnitude* (M). However, As I discussed in Chapter 2, because I distinguish electoral systems and candidate selection procedures and because Carey and Shugart (1995) amalgamated the two institutions into one in their *Ballot* variable, I use *Ballot Type* instead of *Ballot* to recognize the separate effect of elections and selections. *Ballot Type*, according to my conceptualization, measures the degree to which voters control the ballot at the general election stage. It differentiates between fixed ballots and those that voters can change. More specifically, I propose a three-category classification that places fixed ballots on the party-centered pole and places strong preferential ballots where "preference votes are the sole basis on which individual legislators are chosen" (Karvonen, 2004, 207) on the other pole. Between these two categories lies a third, intermediate category, weak preferential, where predetermined list-order is important, but preferential vote might limit its effect (see Subsection 3.7.4 in the Appendix for more details).

I define *Vote* and *Pool* similarly to Wallack, Gaviria, Panizza and Stein (2003).[9] *Pool* measures whether a candidate benefits from electoral support for his co-partisans, possibly in other districts that is, whether the system pools votes across legislators from the same party. The codes include: 0, where the system pools votes across the whole party when determining the allocation of seats; 1, where the system pools at the sub-party level; and 2, where electoral systems do not pool the votes and votes cast for a candidate only contribute to his or her individual success. *Vote* "measures limitations on the number of individuals that voters can support" (Seddon et al., 2002, 12). Its codes include: 0, where a voter can cast a single vote for a party; 1, where voters cast multiple votes for candidates who might not have to belong to the same party; and 2, where voters have a single vote for a single candidate. I measure *District magnitude* (M) as a weighted average of all district magnitudes in a country, where the number of legislators running in each district determines the weights[10] (see:

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[9]It is worth mentioning how I classify Single Member District (SMD) systems. The literature contains a controversy as to how to code the values of *Ballot, Vote, and Pool* for an SMD system like the United States or Canada. Whereas Carey and Shugart (1995) regarded SMD systems with party endorsement as CLPR systems with district magnitude of 1, and therefore code as 0 Ballot, Pool and Vote, Wallack et al. (2003) coded these values as 0 only for SMD systems with a single-party system such as Mali. For all other instances of SMD, such as Canada and the United States, they coded *Ballot* as 1 and *Pool* and *Vote* as 2 (Seddon et al., 2002). Indeed, Depauw and Martin (2009) argued that one can attribute parts of the indeterminant results from empirical analyses on personal vote-seeking behavior to the myriad ways by which scholars classify SMD systems. I believe my distinction between *Ballot Type* and *Ballot Access* helps solve the issue. SMD systems are coded as 0 on the *Ballot Type*, as the degree to which voters control the ballot at the general election stage is minimal. Voters cannot disturb or change the party's representative on the ballot. On the other hand, the *Pool* and *Vote* are coded as 2. Under SMD systems, voters cast only one vote for a candidate (2 on the *Vote* variable), and the system does not pool votes across candidates (2 on the *Pool* variable). Accordingly, I code SMD systems as 0, 2, 2 on the *Ballot Type, Pool and Vote* variables, respectively.

[10]In this dissertation I do not interact *District Magnitude* with electoral system factors, as Carey and Shugart (1995) prescribed, because it would render interpretation of the model difficult. Moreover, in light of the critique in Crisp, Jensen and Shomer (2007), and in light of Tavits' conclusion that "contrary to expectation...the effect of district magnitude on individualism in parliament is not dependent on the list type"(Tavits, 2009, 808), I have not modeled the interaction between *District Magnitude* and *Ballot Type*. In addition, I do not use a composite index for personal vote-seeking incentives similar to the one proposed by Wallack et al. (2003) as the theoretical argument calls

Subsection 3.7.4 in the Appendix for more details).

Ballot Access, i.e., intra-party candidate-selection processes, indicates how legislators "gain permission" to use the party's ballot. Similar to Shomer (2009), I create an index for intra-party candidate selection procedures according to how much they create incentives for personal vote-seeking behavior. To this end, I use two criteria suggested by Rahat and Hazan (2001) for analytical classification of candidate selection methods: *selectorate* and *decentralization*. *Selectorate* measures who can participate in the selection process. It ranges from an exclusive pole where a single party leader determines the party's list to an inclusive pole where the entire electorate can select candidates. Between these poles, I classify selection processes by the degree of their inclusiveness indicated by the size of the selectorate body (Rahat and Hazan, 2001). Candidate selection processes characterized by an inclusive selectorate should promote personal vote-seeking behavior.

De-centralization, the second criterion, distinguishes between candidate-selection processes where "candidates are selected exclusively by a national party selectorate with no procedure that allows for territorial and/or functional representation" and procedures where candidates are selected solely by local-party organizations (Hazan, 2002, 114). Centralized candidate selection processes should encourage party-centered incentives.

Based on these two criteria I produced an 8-point scale (see Figure 2.1 in Chapter 2) that ascribed the lowest level to the most restrictive candidate selection pro-

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for an interaction between *Ballot Access* and *Ballot Type*. Using a composite index would not have enabled me to parse out this interaction.

cedure and ascribed larger numbers to permissive selection processes that encourage personal-vote seeking behavior.

In addition to electoral systems and candidate selection processes, other predictors at the party level and at the country level influence legislators' behavior. At the party level, I control for two explanatory variables in addition to the candidate selection process. First, I include a dummy variable that differentiates between governing parties or, in presidential systems, the president's party and those that belong to the opposition. Party leaders of governing parties have "plum jobs within the executive itself" (Bowler, Farrell and Katz, 1999, 10), with which they can influence and shape legislators' behavior towards a more party-centered direction (Owens, 2003; Tavits, 2009). In addition, the cost of dissenting from a party's line is greater than in opposition parties, especially in parliamentary systems (Gaines and Garrett, 1993). Nonetheless, it is interesting to note that some recent analysis found opposition parties more cohesive than coalition parties (Depauw and Martin, 2009; Rahat, 2007), while others (Leston-Bandeia, 2009) have found no difference between opposition and coalition levels of dissent[11]. Secondly, I include a variable that controls for party size to account for potential collective action problems in coordinating discipline for larger parties (Olson, 1971). Thus, smaller parties should exhibit more cohesion than larger

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[11]Because the head of the executive has the means, jobs, with which he or she can induce discipline, I coded presidents' parties in presidential systems as coalition parties. Similar to coalition party leaders in parliamentary systems, the head of the executive in presidential systems, the president, also has plum jobs with which he or she can promote discipline. Nonetheless, I also ran the analysis while classifying all parties in presidential systems as opposition parties (not included in this document). The results did not differ substantively from the one I present here.

parties, all else being equal[12].

At the country level, I include controls for regime type, whether the country uses a presidential or a parliamentary system. The literature argues that legislators under parliamentary systems should behave in a party-centered manner compared to legislators from presidential systems (Epstein, 1967). In parliamentary systems, the survival of the head of the executive and government depends upon the legislature (Lijphart, 1984; Persson and Tabellini, 2003). Moreover, in many parliamentary systems, the government can attach a dissolution threat to a vote of confidence (Diermeier and Fedderson, 1998), "forcing members of the assembly to choose between either accepting the government's policy or facing the voters in an election" (Huber, 1996, 8). Therefore, legislators in parliamentary systems will be more cohesive compared to their counterparts in presidential systems (Bowler, Farrell and Katz, 1999; Carey, 2009; Diermeier and Fedderson, 1998; Huber, 1996). In addition to regime type, I also include a variable that measures whether a country is a unitary or a federal system under the hypothesis that federal countries exhibit less cohesion (Ozbudum, 1970) (see: Subsection 3.7.4 in the Appendix for details concerning the coding scheme and

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[12]This measure also helps in artificially "correcting" for the bias smaller parties exhibit in cohesion scores Desposato (2005) demonstrated. To the degree to which smaller parties exhibit artificially greater cohesion than larger parties, one should observe the party-size variable to have a significant negative sign.

data sources)[13].

I have collected an original data-set with a sample size of 251 parties nested in 24 countries[14]. Because data on candidate selection processes at the party level is hard to acquire, I could not select my cases randomly. Therefore, cases were chosen so as to maximize variation in selection processes and electoral systems. Though not a randomly chosen sample, my countries include CLPR, SMD, STV, OLPR, Mixed Members, and Alternative Vote electoral systems. Selection processes vary from a most restrictive extreme where one person or a small group of national party leaders selects to permissive selection via primaries. Though the sample is clearly not random, I do not expect the results to be sample-specific and believe that one can

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[13]In this dissertation, I examine the effect of intra-party competition on legislators' behavior. However, one may wonder whether it is only a story about intra-party competition, or should one account for the inter-party competition in the system. Clearly, in the American literature about congressional behavior, both these conditions matter for party influence as is evident from the Conditional Party Government literature (Aldrich, 1995; Rohde, Aldrich and Berger, 2002; Rohde, 1991). In the comparative literature, one often operationalizes inter-party competition using the measure of effective number of parties (Laakso and Taagepera, 1979; Lijphart, 1999). Therefore, one might think I need to control the effective number of parties as an additional predictor. However, effective number of parties does not constitute an omitted variable problem. Specifically, in the comparative literature, the effective number of parties is a product of the electoral system (Cox, 1997; Duverger, 1990). Therefore, the chain of causality is that electoral systems influence the effective number of parliamentary parties that, in turn, might influence legislators' behavior. Omitting the effective number of parties from the analysis does not constitute an omitted variable problem and does not introduce bias into the analysis (King, Keohane and Verba, 1994). Additionally, some scholars that examined legislators' behavior include effective number of parties as an indicator of inter-party competition in their regression models. For example, Carey (2009) included in his hierarchical model the effective number of parties. In neither of his models did this variable have a significant influence on parties' cohesion scores. Lastly, I estimated a two-level varying-intercept varying-slope hierarchical model which included the effective number of parties in it (not included in this document). The effect of this variable is indistinguishable from zero, while the results for the other predictors are similar to the ones presented in Table 3.2. Therefore, I concluded that the effective number of parties is not a consequential factor for legislators' behavior and that I need not include it in the analysis.

[14]For New Zealand and Israel, I have data for both before and after electoral reforms. Because values of the main predictors of interest differ between these two periods of time, I use two groups for each country: one for the sessions prior to the electoral reform and one for sessions that came later.

generalize the results[15]

For each party in the data set, I have calculated the Rice cohesion score and the Weighted Rice cohesion score according to Equations 3.1 and 3.2, respectively[16]. Figures 3.9 and 3.10 in the Appendix presents their densities. Additionally, I collected data on the main explanatory variables, including candidate selection procedures (see Subsection 3.7.4 in the Appendix for more details). To the best of my knowledge this is the largest party-level data set that contains this information (see Table 3.7 in the Appendix for summary statistics).

As explained above, this chapter uses a varying-intercept varying-slope hierarchical model. This model captures the conditional combined effect of electoral systems and candidate selection processes. Moreover, this modeling strategy enables me to allow for intra-country variation in cohesion of parties that select via differing mechanisms. This model facilitates inclusion of both country-level and party-level characteristics thought to influence legislators' behavior at their appropriate levels. Below, I present the two-level hierarchical model. As I use Bayesian analysis, I need to assign prior distributions to all the parameters in the model. Each of the C α's and the C β_{selec}'s is assigned a different prior distribution. Thus, for example, for a particular group c, the α_c is assigned a normal prior distribution with mean

$$\hat{\alpha}_c = \gamma_0^{\alpha} + \gamma_1^{\alpha} * Ballot_c + \gamma_2^{\alpha} * Pool_c + \gamma_3^{\alpha} * Vote_c + \gamma_4^{\alpha} * DistM_c + \gamma_5^{\alpha} * Regime_c + \gamma_6^{\alpha} * Unitary_c$$

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[15] With observational data the assignment to the independent variables is often non-random and hence produces challenges to causal inference. Thus for example we would like the treatment assignment to be uncorrelated with the distribution of the outcome variable (to prevent endogeneity). The way to achieve this state is through random assignment to the treatment (Winship and Morgan, 1999). However, as the assignment to *Ballot Access* and *Ballot Type* and to the different categories within each are not random, one might encounter difficulties with causal inference.

[16] See Subsection 3.7.4 in the Appendix for a list of data sources.

and standard deviation of σ_{α_c}. Similarly, each of the C β_{selec}'s is assigned a normal prior distribution with mean $\hat{\beta}_{selec_c} = \gamma_0^\beta + \gamma_1^\beta * Ballot_c$ and standard deviation of $\sigma_{\beta_{selec_c}}$.

Note, that these prior distributions include unknown parameters (e.g.,γ_0^α), which are themselves estimated form the data, and are assigned a diffuse noninformative prior. Thus, for the hyper-parameters in the group level model such as γ_0^α, γ_3^α, or γ_1^β and the non varying data level predictors such as β_{opp}, β_{size}, and σ_y, I did not assign a "model". "That is, in Bayesian terminology we assign noninformative uniform prior distributions to these coefficients"(Gelman and Hill, 2007, 347). In other words, I drew these parameters from a relatively diffusive distribution where a more or less equal probability exists for each possible value. This mimics the idea that I have no a priori information about the value of the parameters to be estimated. Hence, as one can see in the WinBUGS code in Subsection 3.7.3 in the Appendix, I assign each of the hyper-parameters as well as the non varying data-level parameters a diffusive normal prior with mean 0 and standard deviation of 31.6 (WinBUGS parameterizes the normal distribution in terms of precision—inverse of the variance—and thus $1/31.6^2 = 0.001$.)[17].

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[17]Note that I did not estimate the possible correlation between the intercepts and the slopes in the models presented. In other words, I treated and modeled the intercepts and the slopes as independent and did not draw them from a bivariate normal distribution and hence did not estimate the parameter ρ (Gelman and Hill, 2007; Hox, 2002).

$$Rice_p \sim \mathcal{N}\left(\hat{y}_p, \sigma_y^2\right) \tag{3.4}$$

$$\hat{y}_p = \alpha_{c[p]} + \beta_{selec_c[p]} * Selection_p + \beta_{opp} * Opp_p + \beta_{size} * Size_p$$

$$\begin{pmatrix} \alpha_c \\ \beta_{selec_c} \end{pmatrix} \sim \mathcal{N}\left(\begin{pmatrix} \hat{\alpha}_c \\ \hat{\beta}_{selec_c} \end{pmatrix}, \begin{pmatrix} \sigma_{\alpha_c}^2 & \rho_1 \sigma_{\alpha_c} \sigma_{\beta_{selec_c}} \\ \rho_1 \sigma_{\alpha_c} \sigma_{\beta_{selec_c}} & \sigma_{\beta_{selec_c}}^2 \end{pmatrix}\right)$$

$$\hat{\alpha}_c = \gamma_0^\alpha + \gamma_1^\alpha * Ballot_c + \gamma_2^\alpha * Pool_c + \gamma_3^\alpha * Vote_c + \gamma_4^\alpha * DistM_c$$

$$+ \gamma_5^\alpha * Regime_c + \gamma_6^\alpha * Unitary_c$$

$$\hat{\beta}_{selec_c} = \gamma_0^\beta + \gamma_1^\beta * Ballot_c$$

where p indicates parties,

and c indicates the hierarchical level of a country.

To sum up the main theoretical expectations, If my theoretical arguments are correct, one should observe that the magnitude of the influence of candidate selection procedures on legislators' behavior measured at the party level depends upon the values of *Ballot Type* and vice versa, and should vary with it. In other words, One should observe that legislators or parties that select by restrictive candidate selection procedures should always exhibit higher levels of party-centered behavior compared to their counterparts elected under the same electoral system but selected through a permissive mechanism. However, one should observe the difference in behavior between legislators selected via permissive and restrictive selection procedures to be greater under strong preferential electoral systems than under weak preferential and

CLPR systems (as depicted in Figure 2.1).

3.5   Results

The party-level model is a two-level hierarchical model where the unit of analysis is a party nested within a country. The goal of the model is to account for variation in the outcome variable measured at the lowest level of analysis, the party level, by considering information from all levels of analysis: from the party and country levels. The main predictors of interests are a party's candidate-selection processes, measured at the party level, and a country's electoral system measured using *Ballot Type*, *Pool*, *Vote* and average *District Magnitude*. By modeling the party-level intercept, $\alpha_{c[p]}$ one can introduce the country-level predictors that we theorize will influence cohesion such as *Regime Type*. Similarly, since I stipulate that the effect of selection processes varies as a function of the electoral system and vice versa, I let the coefficient of selection, $\beta_{selec_c[p]}$, vary by country. Using this varying slope, I specify an interaction between the lower party-level and the upper country-level predictor of *Ballot Type*. This cross-level interaction allows me to examine whether the effect of selection processes depends upon *Ballot Type* and vise versa.

Because Rice scores and Weighted Rice scores are measured between 0 and 1, or in percentage terms between 0 and a 100, both assumptions of normality and continuous response variable are violated, so using an OLS model might prove to be problematic. Moreover, when many of the values of a proportion response variable fall near the extreme, as is the case with our data where for some countries I have Rice scores and Weighted Rice scores of near or exactly 1, OLS analysis would yield

out-of-bounds predictions. Therefore, I use a logit empirical transformation (Hox, 2002) [18] according to Equation 3.5 to transform the outcome variable to a continuous scale. After the logit transformation, I can use the standard regression procedures on the transformed variable[19].

$$f(p) = ln(\frac{p}{1-p}) \tag{3.5}$$

3.5.1 Rice

In this subsection, I present the results from a party-level varying-intercept varying-slope hierarchical model where the outcome variable is operationalized as Rice cohesion scores. Before reviewing results from the hierarchical model, one should examine the data graphically and estimate intra-country regressions and complete pooled models (Bowers, 2004). Therefore, Figure 3.2 presents a 3 dimensional plot of parties' Rice scores, plotted against their selection processes and the *Ballot Type* under which they were elected. I also overlayed a regression plane. One can see that the slope of the regression plane, as one moves from fixed ballot systems to strong preferential electoral systems, decreases. This indicates that parties elected under strong preferential electoral systems proved less cohesive. This negative slope is steeper when selection processes are permissive, coded 8, while almost non-existent when they are restric-

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[18]I would like to thank Diana O'Brian for her helpful suggestion.

[19]It is worth mentioning that, all in all, Rice and Weighted Rice cohesion scores are relatively high for many parties for which I could collect data. The outliers in this regard are the Polish parties for the 1997-1999 period. .

tive, coded 1. Similarly, one can observe that the slope of the regression plane with regards to candidate selections' effect on legislative behavior is negative, indicating that parties selected via permissive decentralized selection procedures are less cohesive compared to parties that use restrictive candidate selection processes. Again, it seems this slope is steeper under strong preferential electoral system while it is more moderate under fixed ballot electoral systems. This graphical presentation of the data supports my theoretical argument and hypotheses.

Figure 3.2: *Ballot Type*, *Selection Processes*, and Rice Scores
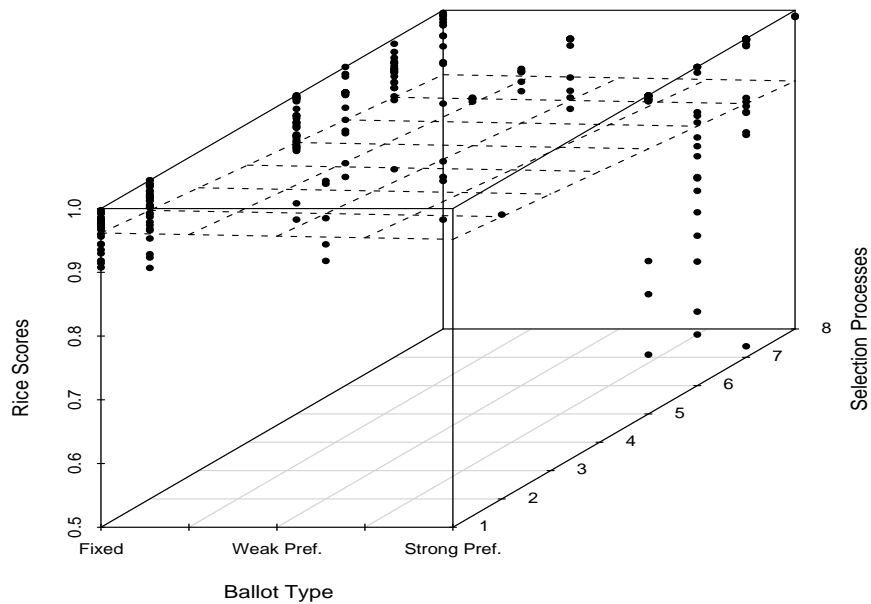
Moreover, as a preliminary stage I ran a regression model in each of the countries. Figure 3.3 presents the country intercepts in the right panel and the candidate-selection coefficients with a 95% confidence interval from within country regressions.

For each country, separately, Rice scores were regressed on candidate selection, party size and the coalition-opposition variable. The coefficients of selection procedures are plotted in Figure 3.3 against the levels of *Ballot Type* for each country. They signify the effect of selection processes on parties' cohesion within each country. The solid line is a linear regression line of the coefficients on the country-level *Ballot Type* variable weighted by the standard errors of the within country regressions. One should view these results carefully as the sample size within each country is relatively small[20].

The right panel in Figure 3.3 reveals a slight variation in the intercepts and supports using a varying-intercept hierarchical model. Regarding the slopes, which depict the influence of selection processes on legislators' behavior within each country, one sees variation. Thus, the effect of selection procedures on cohesion varies by country. These results provide limited support for letting the selection coefficient vary by country in a hierarchical model. Moreover, because Figure 3.3 plots the coefficients of selections by *Ballot Type* and regresses these coefficients on the country-level *Ballot Type* variable, the ever-so-slight positive slope of this regression line might indicate that the influence of selection procedures on behavior is larger under strong preferential systems than under restrictive electoral systems with fixed *Ballot Types*. Results from a complete pooled model in which all parties are pooled together with no regards to the countries (not presented in here) support the assertion that the larger the party, the less cohesive it is holding their coalition status and selection procedures constant. However, completely pooling the parties ignores any potential variation in

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[20]Moreover, the intra-country regressions could not be estimated in all the countries since some lacked enough observations, that is, did not have enough parties to estimate the model. For example, the United States has four parties in the data set; one could not estimate the intra-country regression in light of degrees-of-freedom issues. In addition, countries that do not exhibit variation in their selection procedures, such as Finland, were omitted from the analysis. This problem is alleviated with the usage of hierarchical models.

average Rice scores between countries and assumes that one has independent obser-vations that ignore the clustering of the data. Therefore, using hierarchical modeling is preferred. Ignoring the multilevel structure of the data leads to the possibility of erroneous standard errors, and therefore one is more likely to perform a type 1 error (Steenbergen and Jones, 2002).

Figure 3.3: Relationships between Selections and Cohesion Scores, Plotted against *Ballot Type*
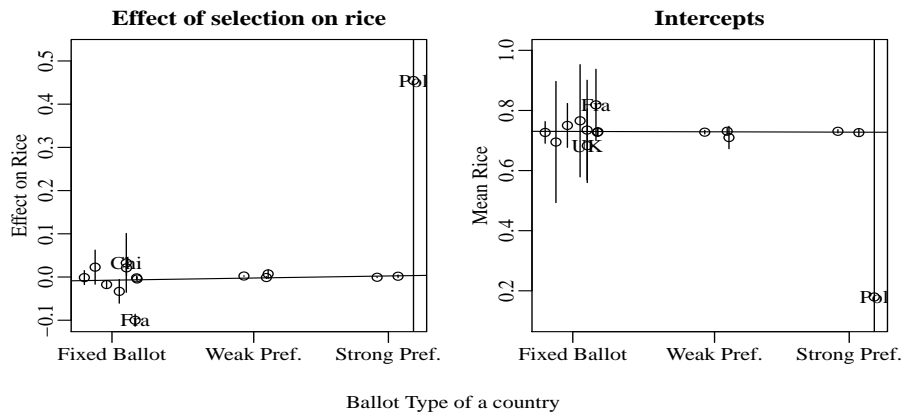
Table 3.1 presents the results from a classical Analysis of Variance (ANOVA) that presents decomposition of the variance in Rice cohesion scores into country effects and party effects. One sees significant variation in Rice Cohesion scores cross-country and intra-country. If no significant variation existed at the country level and the variance actually was zero, the mean square for the country level would equal that of the resid-

uals in the model. Therefore, the ratio between the mean of square of the country to the residual's should be significantly greater than 1. Indeed the F-statistics, the ratio between the mean square of the country level to that of the party level, is significantly larger than 1. Ignoring this variation at both levels by pooling all parties and disregarding the clustering of the data might result, as I have mentioned, in erroneous conclusions (Steenbergen and Jones, 2002).

Table 3.1: Classical ANOVA for the Party-Level Model: Rice

Factor	DF	SUM SQ	Mean SQ	F-statistic	Pr(>F)
Country	23	0.953	0.041	17.02	< 2.2e-16*
Residuals	217	0.52803	0.00243		

In light of my theoretical arguments and due to the results from the ANOVA, I ran a varying-intercept varying-slope party-level model where parties are nested within countries. Thus, I estimated for each country its own intercept and let the coefficient of selection procedures vary by *Ballot Type*. This step allows the interaction between the party-level predictor, selection, and the country-level covariate, *Ballot Type*. This interaction allows one to estimate the conditional combined effect of selections and elections on legislators' behavior. Note that the coefficients for coalition status and for party size were not allowed to vary by country. Table 3.2 presents the results of the party-level model.

Table 3.2: Rice Scores Party-Level Models: Two-Level Varying-Intercept Varying-Slope

	Parameter	Median	80% C.I.
Fixed Effects			
	Intercept	4.45	2.387 : 6.658
	Selection	-0.14	-0.257 : -0.033
	Coalition	-0.41	-0.667 : -0.127
	Size	0.001	-0.002 : 0.004
	Pool	0.09	-0.704 : 0.878
	Vote	-0.98	-1.986 : -0.042
	District Magnitude	-0.02	-0.038 : 0.002
	Regime	1.78	0.488 : 3.096
	Unitary	-0.15	-1.278 : 1.005
	Ballot	-0.23	-1.810 : 1.226
	Selection*Ballot	-0.02	-0.20 : 0.150
Variance Components			
Country Level			
	Intercept	1.57	0.966 : 2.153
	Selection	0.09	0.0163 : 0.229
	Residual	1.42	1.339 : 1.519

Because the model presented in Table 3.2 is hierarchical and includes interactions, and because I have used the empirical logit transformation on the response variable, basic interpretation of the table is more challenging. Nonetheless, one can observe some interesting results from Table 3.2. As the main predictors of interest, selection and _Ballot Type_, are interaction terms, I do not interpret their coefficients directly from the table but produce some figures to demonstrate their combined conditional effect. One can see that the fixed effect coefficient of the opposition-coalition variable has a negative sign and that the credible interval does not overlap 0. This indicates that coalition parties are more likely to exhibit lower levels of party cohesion than opposition parties. These counterintuitive results corroborate recent findings by Depauw and Martin (2009) and Rahat (2007), and contradict the arguments made by

Owens (2003).

Additionally, one can see that while the credible intervals of the *Pool* variable overlap 0, the coefficient for the *Vote* variable is negative and significant. This indicates that, in accordance with Carey and Shugart (1995) theory, parties that operate under electoral systems that ask voters to vote for a single candidate exhibit lower levels of cohesion compared to parties in countries that ask voters to cast a single party-level vote. The size of the party does not seem to exhibit any significant influence over its cohesion holding all other things constant. These results can provide some reassurance against the argument presented by Desposato (2005) concerning the bias of Rice cohesion scores in small parties. Lastly, the institutional regime a country has exhibits a strong influence on its legislators' behavior. Parties in parliamentary systems, coded as 1, are more cohesive than their counterparts in presidential systems as the positive coefficient of the *Regime* variable indicates.

An intuitive and clear way to interpret results from a hierarchical model is through figures. Figure 3.4(a) presents the expected values of Rice scores in parliamentary systems, whereas Figure 3.4(b) depicts expected Rice scores for presidential systems. In both systems, I calculated the expected values for a unitary system with mean *District Magnitude* (34.2) for an opposition party, the median of the coalition variable, with a party size of 44: the mean[21]. The selection variable, as well as the variables

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[21]Figure 3.12 in the Appendix presents depictions of the expected Rice scores under various permutations of the predictor variables. Specifically, I calculated the expected Rice scores for both federal presidential and federal parliamentary systems. I used the first and third quartile of *District Magnitude* and party size and calculated the expected values for both coalition and opposition parties. The values of *Ballot Type* and *Ballot Access* in each of these permutations varied across their respective values. The results from the various calculations of the expected Rice scores are similar to the ones presented in Figure 3.4(a) and Figure 3.4(b).

that measure the electoral systems, *Ballot Type*, *Pool*, and *Vote* varied across their values. I used the inverse logit transformation on the expected values to bring them back to their original scale.

In both Figure 3.4(a) and Figure 3.4(b), the x-axis depicts the variation along the *Ballot Type* variable (and so the variation along *Pool* and *Vote*[22]), from 0 for fixed ballot to 2 for strong preferential systems. The y-axis portrays the expected Rice scores. Each panel depicts expected values for each of the selection procedures used according to the classification presented in Figure 2.1. Thus, the black, solid, thin line represents expected values for parties that use a small group of national party leadership to select their candidates while the gray dotted line represents expected Rice scores calculated for parties selecting via permissive primaries.

(a) Parliamentary Systems   (b) Presidential Systems
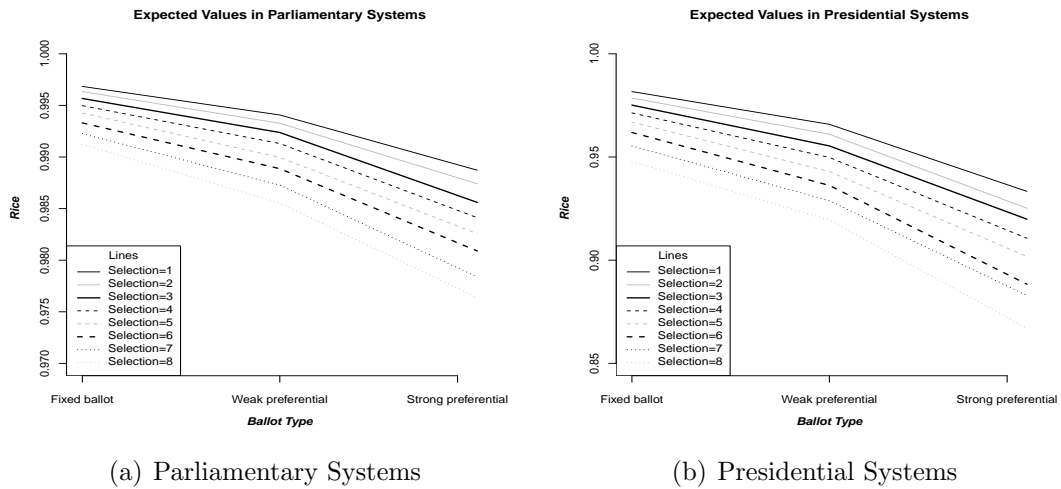
Figure 3.4: Expected Rice Scores in Parliamentary and Presidential Systems.

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[22]*Pool* and *Vote* were put at the same value *Ballot Type*. Thus, the figure effectively compare a Closed List PR, to a Weak Preferential, to an SNTV electoral system.

Regarding the distinct effect of electoral systems on legislators' behavior, recall that theory argued that when the *Ballot Type* is fixed, when votes are pooled from the individual legislator to her co-partisans, and when voters can only cast a party-level vote, that is, all respective variables take a value of 0, legislators face incentives to enhance their party's collective unified reputation and one should anticipate observing higher levels of cohesion. On the other hand, theory suggested that when *Ballot Type*, *Pool* and *Vote* take the value of 2, one expects legislators to face incentives to cultivate their own personal reputations and demonstrate lower levels of party cohesion.

The negative slope on the graph indicates that the data for both presidential and parliamentary systems supports this conclusion. As one moves right on the graph toward more vote-seeking-incentive electoral systems, the Rice cohesion trend lower holding all else constant. This holds true for each selection procedure examined. Though the expected values reveal that electoral systems bear an effect in the hypothesized direction, one must wonder whether the differences in *Ballot Type* are significantly different from zero. Table 3.8 in the Appendix presents calculations of first differences while letting *Ballot Type* vary from its most restrictive value, 0, to its most permissive value, 2. Calculating these first differences reveals that under both permissive and restrictive selection procedures, the differences in expected Rice scores across *Ballot Type* are not significantly different from zero at the 80% level for both parliamentary and presidential systems. This is despite the fact that the point predictions of the differences support the theoretical argument, as they are positive, indicating with the way I have calculated the first difference that fixed ballot systems

witness higher levels of party cohesion compared to strong preferential systems[23].

(a) Parliamentary Systems

(b) Presidential Systems
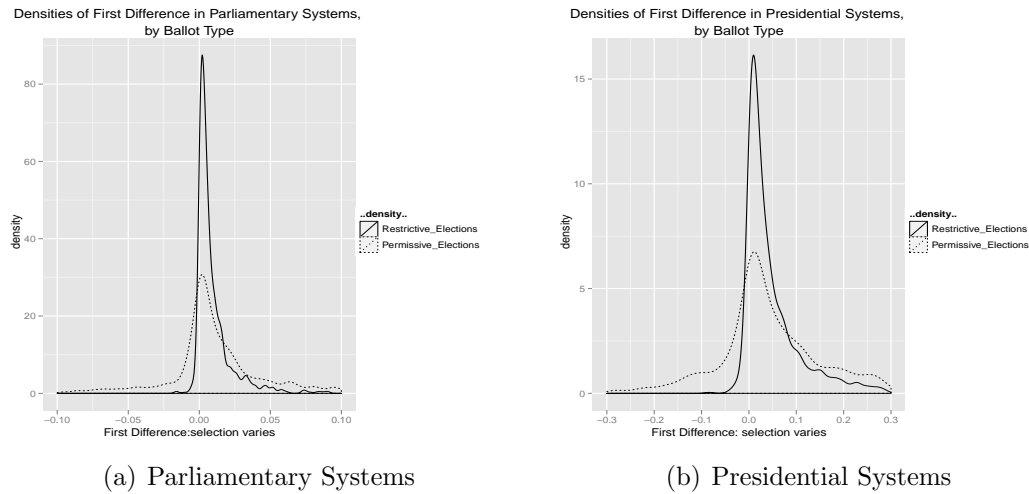
Figure 3.5: First Differences in Expected Rice Score when Selection Varies in Parliamentary and Presidential Systems.

The hypothesized separate effect of selection procedures also gains support. The more democratized and permissive the selection processes is, the lower the levels of expected cohesion scores one observes when all other variables remain constant. This is true regardless of the electoral systems examined. Again, one should examine whether differences in expected Rice scores under different selection procedures are significant. To this end, I calculated the first differences in expected Rice scores while letting selection vary from its most restrictive value, 1, to its most permissive value, 8. Figure 3.5(a) presents the posterior distribution of these first differences under CLPR systems and strong preferential systems in parliamentary countries. Figure 3.5(b) presents the first differences in presidential systems.

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[23]The insignificance of the results might result from the scarcity of country-level data. Recall this analysis only includes 24 countries. In future iterations of the project, I would like to collect data for more countries.

The differences in expected values of Rice scores between restrictive and permissive selection processes differ significantly from 0 at the 80% level for fixed ballot systems under both presidential and parliamentary systems and for strong preferential electoral systems under parliamentary systems. (The results prove inconclusive for variation in selection processes under strong preferential systems under presidential systems. The point predictions of the differences are in accordance with theory for strong preferential and CLPR under both types of regimes. Specifically, a positive first difference exists between selection in the most restrictive procedures, hypothesized to induce party-centered behavior and to increase cohesion, and selection in the most permissive selection mechanisms, hypothesized to reduce party cohesion levels. For example, parties selecting via restrictive procedures in presidential systems with CLPR electoral systems will have, on average, 2.5% higher cohesion scores than parties in the same system selecting by decentralized mechanisms.

The positive difference, then, indicates that the expected Rice scores are higher under restrictive selection mechanisms where a small number of national party leaders makes the selection compared to selection via primaries. Indeed, the probability in a parliamentary system with restrictive electoral systems that a party that selects via restrictive selection processes will be more cohesive compared to a party that selects via permissive selections is 0.953. Similarly, the probability in a parliamentary system with permissive electoral systems that a party that selects via restrictive selection processes will have higher Rice scores than a party that selects via permissive selection processes is 0.835. Thus, it seems the separate effect of intra-party candidate selection processes on legislators' behavior gains support by the data.

The conditional combined effect of selections and elections gains support from the party-level model that uses Rice scores as the outcome variable. Recall that I hypothesized that the effect of selection procedures on legislators' behavior should depend upon a country's *Ballot Type*. Specifically, I argued that because electoral systems and candidate selection processes are substitutive means through which party leaders can induce discipline, the effect of selection procedures under electoral systems that encourage party-centered behavior should be smaller than their effect under permissive electoral systems and vice versa. Under such permissive systems that encourage personal vote-seeking incentives, selection processes matter more. This assertion clearly gains support in both parliamentary and presidential systems. The gap in Figures 3.4(a) and 3.4(b) between the most permissive and the most restrictive selection procedures is wider under electoral systems that encourage personal vote-seeking incentives, such as under strong preferential electoral systems. Substantively, from calculation of first differences, where selection varied from the most restrictive to the most permissive mechanisms across the values of *Ballot Type*, it seems that in presidential systems, under CLPR system, the expected Rice cohesion scores of a party that selects under restrictive centralized procedures is 2.5 points higher on a scale of 0 to 100 than their counterparts that select under permissive selection processes. This difference is larger in presidential countries with strong preferential electoral systems where a party that selects via restrictive processes will have an expected Rice score that is higher by 3.2 points than its counterparts that selected via permissive mechanisms.

A difference of 0.7 points on a Rice scale $(3.2 - 2.5)$ might seem underwhelming. However, one must remember that these first differences are calculated as a percentage of a full Rice score scale. In reality and in the data set I am using, one does

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not observe parties that exhibit cohesion scores of 0. In fact, the lowest level of rice cohesion score in my data set is 0.52. One should examine how different the gap appears in a more realistic setting.

To this end, I calculated the first difference in the gap as a percentage of the range of Rice scores on which the middle 90% of the parties fall, which is between 77% and 100% Rice scores. The gap in behavior in presidential systems between parties that select via the most permissive and the most restrictive candidate selection processes under permissive and restrictive electoral systems is now 3%. This gap in expected Rice scores between selecting in the most restrictive and the most permissive selection procedures under permissive and restrictive electoral systems on a Rice score scale limited to the inter-quintile range of the data is 9.5%. The results for parliamentary systems are similar.

Moreover, if I calculate directly the first differences of the gaps, a more accurate way of calculating the differences in the gap, as presented in Table 3.3, the median of this posterior distribution indicates a 3% difference in the gap. In other words, the difference in the gap between parties that select via the most permissive and the most restrictive manners, under permissive electoral systems is 3% larger than it is under restrictive electoral systems.

In addition, Table 3.3 also examines whether the gap in behavior across different electoral systems between parties that select via the most restrictive and parties that select via the most permissive selection mechanism differs from 0. As the results from the first differences demonstrate, the 80% credible interval overlaps 0 slightly. All in all, it seems my theory concerning the conditional effect of selection processes and

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electoral systems gains support by the Rice score party-level model.

Table 3.3: First Differences of the Gaps in Presidential Systems

Scenario	10%	50%	90%
First difference of the gap between restrictive and permissive selections under permissive and restrictive electoral systems	-0.005	0.03	0.28

The Rice score party-level model supports the conditional combined effect of electoral systems and intra-party candidate selection processes on legislators' behavior. Parties that use divergent intra-party candidate selection processes will exhibit greater differences in their behavior if they are elected under permissive electoral systems than if they face a restrictive electoral system. Subsection 3.5.2 presents further support for the theory as I present results for a Weighted Rice scores party level model.

However, before examining whether the Weighted Rice score data supports the separate and combined conditional effect of elections and selections, I must emphasize the substantive effect of regime type on legislators' behavior as stems from the results depicted in Table 3.2. Theory argues that one should observe parties with a higher level of cohesion under parliamentary systems. Indeed, one can observe that the range of Rice cohesion scores in parliamentary systems is narrower and their values are higher. While the lowest expected value in a parliamentary system when *Ballot Type*= 2 and *Ballot Access* = 8 was about 0.97, the corresponding expected value in a presidential system was below 0.9.

Moreover, one can see in Table 3.9 in the appendix that variation in regime types always exhibits a significant effect on legislators' behavior. The positive coefficients indicate that parties in parliamentary systems exhibit higher levels of cohesion compared to parties under presidential systems. These results hold true regardless of electoral systems and candidate selection procedures. However, note that the differences in regime type are larger under electoral systems with strong preferential *Ballot Type* than they are under fixed ballot systems. The difference in expected Rice scores between parliamentary and presidential regimes of a party that selects under centralized mechanisms and is elected under fixed ballot systems is 1.4% while this difference between parliamentary and presidential systems of a party that selects under restrictive processes but is elected under strong preferential systems is higher and stands at 4%. Similarly, the difference in expected Rice scores between parliamentary and presidential systems of parties selecting in a permissive manner is smaller for CLPR, 3.5%, than it is for strong preferential systems, 8.9%.

Moreover, it seems that the differences in expected Rice scores across regime types also vary with how parties select their candidates when electoral systems remain constant. Thus, under electoral systems that encourage party-centered behavior, the difference between parliamentary and presidential systems with respect to expected Rice scores is smaller when parties use restrictive centralized selection processes, 1.4%, than it is when parties use democratized-permissive selection procedures, 3.5%. Likewise, the differences in expected Rice scores across regime types are larger for parties that select via permissive mechanisms and are elected under strong preferential systems than this difference is for parties under strong preferential systems that select

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via centralized processes. Based on these results, it seems regime type is an additional substitutive institution that influences behavior[24].

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[24]Of course, regime types are less amenable to change compared to electoral systems and candidate selection processes. Countries rarely alter their regime type from a parliamentary to a presidential system or vice versa. This is because it usually involves alternation of a constitution. In future research, I would like to model whether the conditional effect of elections and selection on behavior should in itself be conditioned by the *Regime Type* a country has.

3.5.2   Weighted Rice

Subsection 3.5.1 supported the hypotheses concerning the separate and conditional combined effect of electoral systems and intra-party candidate selection processes on legislators' behavior while operationalizing the outcome variable as Rice cohesion scores. As I have mentioned earlier, while Rice scores treat all votes, including unanimous votes, the same, Carey (2009) and Morgenstern (2004) argued that the Rice scores overestimate parties' cohesion. To ameliorate this problem, they proposed the Weighted Rice score measure which weighs the votes by their closeness. In this subsection, I present results from a party-level varying-intercept varying-slope hierarchical model with the Weighted Rice score outcome variables. The results further support the theory concerning the conditional concurrent combined effect of electoral systems and selection processes on legislators' behavior.

Table 3.4 presents the decomposition of the variance in the Weighted Rice scores to a country and a party level. The results from this classical ANOVA indicate a significant variation in Weighted Rice cohesion scores between countries and across parties. The significantly larger than 1 F-statistics which measure the ratio between the mean square of the country to the party (residual) level lead to this conclusion. Therefore, once again, if one ignores this variation at both levels by pooling all parties and by disregarding the data clustering, one reaches erroneous conclusions (Steenbergen and Jones, 2002). Thus, in light of the ANOVA results and my theoretical arguments, I estimated a two-level varying-intercept varying-slope hierarchical model where parties, the lowest level, are nested within countries. This model is similar to the one presented in Equation 3.4, with an outcome variable measured as Weighted Rice scores. Since Weighted Rice scores, similar to Rice scores, are a proportion, I

used the logit empirical transformation, according to Equation 3.5.

Table 3.4: Classical ANOVA for the Party-Level Model: Weighted Rice

Factor	DF	SUN SQ	Mean SQ	F-statistic	Pr(>F)
Country	16	3.3914	0.2120	16.368	< 2.2e-16*
Residuals	177	2.2921	0.0129		

Tabel 3.5 with its Weighted Rice scores shows, as did the Rice cohesion scores, that party size does not exhibit any significant influence on legislators' behavior, but *Regime Type* influences behavior significantly. Parties under parliamentary systems exhibit higher levels of cohesion compared to parties in presidential systems. Interestingly, the results concerning the effect of whether a party belonged to the coalition or opposition differs from the one obtained with the Rice scores. Recall that the results in Table 3.2 surprisingly showed that coalition parties act less cohesively than opposition parties. These results corroborated recent findings by Depauw and Martin (2009), but contradicted the prevalent hypothesis in the literature (Bowler, Farrell and Katz, 1999; Owens, 2003). The results in Table 3.5 support the traditional assertion that coalition parties are more cohesive. These results might tell an interesting story: when considering only non-unanimous votes and when one weighs the votes by their closeness, party leaders of coalition parties discipline their members. Under these circumstances, when cohesive parties become more consequential, the fact that coalition party leaders have plum jobs that they can use as carrots for inducing discipline is meaningful. On the other hand, when one considers all types of votes and disregards their closeness, the amount that party leaders of coalition parties discipline their members is smaller. When a vote is unanimous or when it is predicted to have

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a large margin of victory, coalition party leaders need not spend effort disciplining reluctant legislators to the same degree they would when the votes are close.

Table 3.5: Weighted Rice Scores Party-Level Models: Two-Level Varying-Intercept Varying-Slope

	Parameter	Median	80% C.I.
Fixed Effects			
	Intercept	3.46	2.171 : 4.726
	Selection	0.02	-0.06 : 0.11
	Coalition	0.58	0.350 : 0.80
	Size	0.001	-0.001 : 0.003
	Pool	1.18	0.73 : 1.62
	Vote	-2.75	-3.45 : -0.042
	District Magnitude	-0.04	-0.05 : -0.003
	Regime	2.46	1.86 : 3.09
	Unitary	-0.71	-1.32 : -0.08
	Ballot	-0.13	-1.02 : 0.83
	Selection∗Ballot	-0.08	-0.16 : -0.04
Variance Components			
Country Level			
	Intercept	0.51	0.17 : 0.98
	Selection	0.05	0.01 : 0.13
	Residual	1.04	0.96 : 1.11

Figure 3.6(a) depicts the expected Weighted Rice Scores in parliamentary systems and Figure 3.6(b) presents the expected Weighted Rice scores in presidential systems. I calculated these expected values as I calculated for the Rice model. Under both presidential and parliamentary systems, the expected values posit a unitary country with mean District Magnitude of 34.2 for an opposition party with 44 members. *Ballot Type*, *Pool* and *Vote*, and the selection variable varied across their respective values. Each panel shows expected Weighted Rice scores for each type of selection processes ranging from the most restrictive manners to the most permissive procedures according to the index presented in Figure 2.1.

Recall, that I hypothesized that parties that selects under permissive selection mechanisms, such as primaries, will tend to exhibit lower levels of cohesion compared to parties selecting via restrictive manners, regardless of the electoral system used (the separate effect of selection processes on legislators' behavior). This assertion gains support under permissive electoral systems that encourage legislators to emphasize their personal reputations: the probability, under permissive electoral systems, that a party that selects via restrictive processes will have higher Weighted Rice score compared to a party that use permissive selection processes is 0.846. However, it seems there is almost <u>no</u> difference in the way selection processes influence behavior under restrictive electoral systems. Moreover, the 80% credible interval of the posterior distribution of the first differences in expected Weighted Rice scores between selecting in the most restrictive and the most permissive selection processes overlap zero.

Electoral systems shape how legislators cater to the constituents and how much they emphasize their personal reputation at the expense of their party's. Specifically, I argue that countries with fixed ballots where voters have a single vote at the party
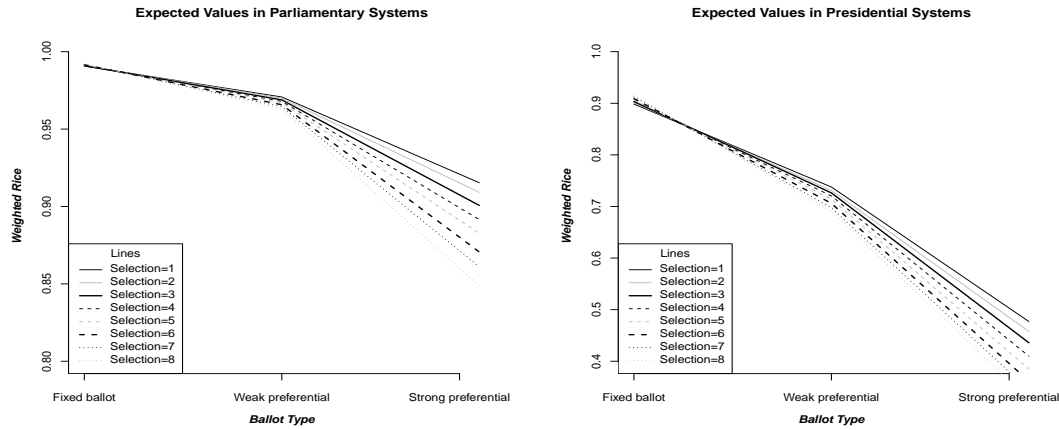
(a) Parliamentary Systems	(b) Presidential Systems

Figure 3.6: Expected Weighted Rice Scores in Parliamentary and Presidential Systems.

level and where votes are pooled at the party level when seat allocation is calculated will tend to witness higher levels of cohesion compared to countries with electoral systems that encourage personal vote seeking behavior. This data, too, supports the hypothesis concerning the separate effect of electoral systems on legislators' behavior. The negative slope of the lines in Figure 3.6(a) and 3.6(b) indicates that under both parliamentary and presidential systems, the more permissive the electoral system is as one moves to the right, the less the parties are disciplined when all else is equal.

One can see the significant differences in expected Weighted Rice scores across electoral systems in Figure 3.7(a) and Figure 3.7(b). Each depicts the posterior distribution of the first differences in expected Weighted Rice scores in both parliamentary and presidential systems. Note that under all circumstances, the median of this posterior distribution is positive, indicating that parties under fixed ballot electoral systems exhibit higher levels of Weighted Rice scores compared to parties elected via strong preferential elections. The 80% credible interval around these point predic-

tions never crosses zero, indicating that these results are significant. The probability that a party that uses restrictive selection processes and is elected under restrictive electoral systems compared to a party elected via permissive electoral systems is 0.918. This probability for a party that selects via permissive mechanisms, is 0.962.

(a) Parliamentary Systems   (b) Presidential Systems
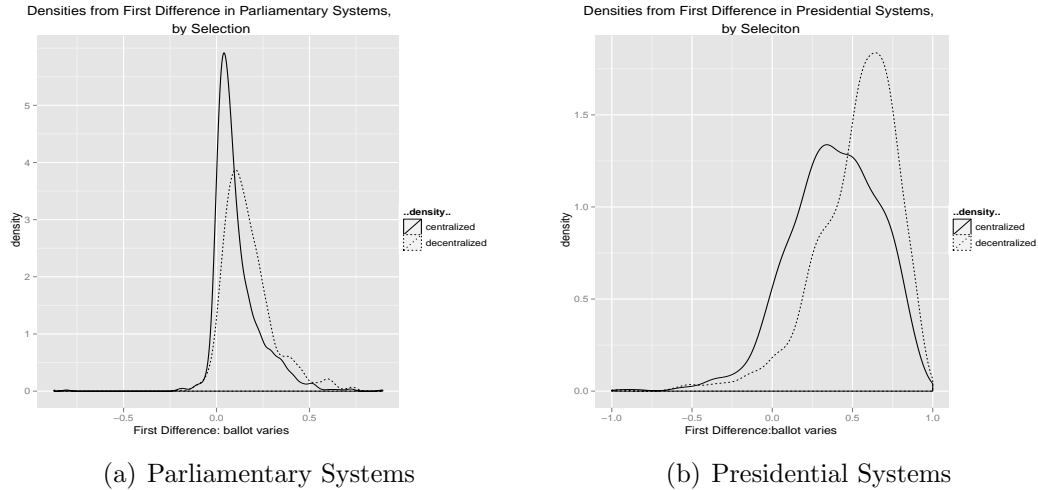
Figure 3.7: First Differences in Expected Weighted Rice when *Ballot Type* varies in Parliamentary and Presidential Systems.

I argued that since electoral systems and intra-party candidate selection processes are substitutive in their ability to induce discipline, one would anticipate electoral systems and candidate selection procedures to have a conditional combined effect on legislators' behavior. Specifically, I argue that the effect of electoral systems on legislators' behavior should depend upon the type of selection processes parties use to select the legislators. Similarly, I claim that the influence of intra-party candidate selection processes on the balance legislators strike between personal vote-seeking behavior and party-centered behavior should depend on how legislators are elected, and more precisely, on *Ballot Type*. Based on the substitutional nature of elections and selections, I argued that the effect of selection processes on legislators' behavior

should be greater when the electoral system is permissive and encourage personal vote seeking behavior than when electoral systems cultivate party-centered behavior. Similarly, the effect of electoral systems on legislators' behavior should be minimal when the selection procedures induce discipline, but it should be meaningful when the selection processes are permissive and encourage legislators to distinguish themselves from their co-partisans and to emphasize their unique reputations and behaviors. This conditional combined effect of selections and elections gains support from the party-level model that uses Weighted Rice scores as the outcome variable. As I mentioned earlier, Figure 3.6(a) and 3.6(b) shows the gaps between the most restrictive and the most permissive selection processes widen when electoral systems are permissive and narrow when electoral systems are restrictive under both presidential and parliamentary systems[25].

Specifically, in presidential systems with an electoral system that encourages personal-vote seeking behavior, the difference in the expected Weighed Rice score of a party that selects via restrictive and a party that selects via permissive selection processes is 12%. This gap in presidential system with a restrictive electoral system is effectively 0%. One can see the significant difference in the gaps in Figure 3.8(b), which depicts the posterior distribution of the first differences between the gaps. In

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[25]Figure 3.11(a) and Figure 3.11(b) in the Appendix present the expected Weighted Rice scores in both presidential and parliamentary systems from a model in which I used the two components, Selectorate and Decentralization, separately instead of using my proposed selection index depicted in Figure 2.1 in Chapter 2. In other words, I estimated a varying intercept with two varying slopes, one for *Selectorate* and one for *Decentralization*, each modeled using the *Ballot Type* variable. The expected Weighted Rice scores were calculated similar to the way they have been calculated thus far. Thus, I calculated them for a unitary country with mean district magnitude of 34.2 for an opposition party with 44 members for both presidential and parliamentary systems. *Ballot Type*, *Pool* and *Vote*,*Selectorate* and *Decentralization* were allowed to vary across their respective values. The results from the decomposed model are similar to the ones I present with my proposed selection index.

parliamentary systems, the difference in expected Weighted Rice scores between parties that select using the most permissive and the most restrictive selection processes under electoral systems encourage party-centered behavior is 0%, while this difference is 5% when the electoral system encourages personal-vote seeking behavior. The difference in the gaps is also significant, as can be seen in Figure 3.8(a). By the same token, in parliamentary systems, the difference in expected Weighted Rice scores between parties elected via permissive electoral systems to those elected via restrictive electoral systems for a party that selects in a restrictive selection procedure is 7.3%. This difference when the parties are selected under permissive selection processes is twice as wide and stands at 14.4%. The results for presidential systems are similar.

(a) Parliamentary Systems   (b) Presidential Systems
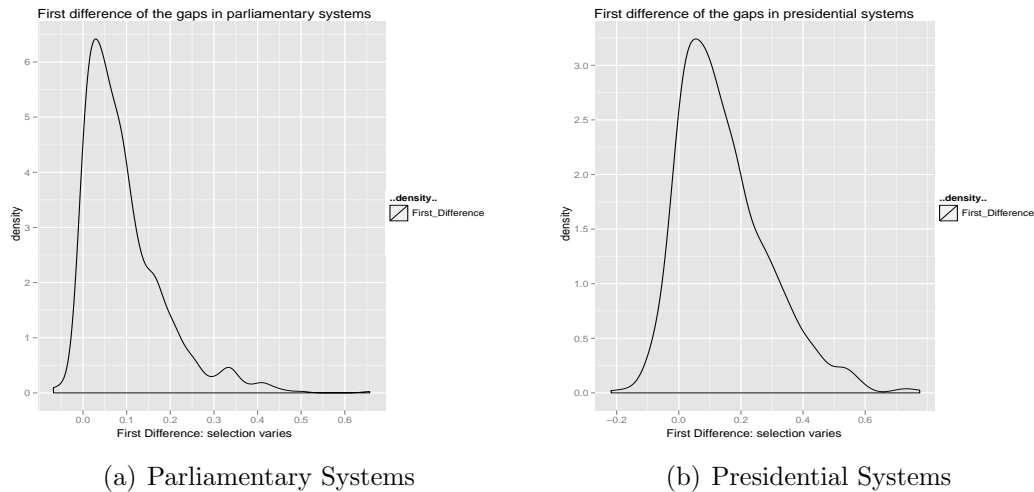
Figure 3.8: First Differences of the Gaps in Expected Weighted Rice in Parliamentary and Presidential Systems.

The convoluted relationship between *Regime Type* and legislators' behavior in the Rice party-level model also gains support from the Weighted Rice score model. Theory argues that parliamentary systems should induce more discipline than presidential systems. This hypothesis gains support as the first differences depicted in

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Table 3.6 indicate. The positive median of the posterior distribution shows that parties in parliamentary systems exhibit higher level of expected Weighted Rice scores compared to their counterparts in presidential systems. However, note that the differences in regime type are smaller under fixed ballot electoral systems than under electoral systems with strong preferential *Ballot Type*. The difference in expected Rice scores between parliamentary and presidential regimes of a party that selects under restrictive selection process and is elected under fixed ballot systems is 9.1%, but this difference in *Regime Type* of a party that selects under restrictive processes but is elected under strong preferential systems is higher and stands at 41%. Similarly, the difference in expected Weighted Rice scores between parliamentary and presidential systems of parties selecting in a permissive manner is smaller for CLPR, 7.6%, than for strong preferential systems, 48%.

Additionally, differences in expected Weighted Rice scores across *Regime Types* also vary with how parties select their candidates. For example, under electoral systems that encourage vote-seeking behavior, the difference between parliamentary and presidential systems with respect to expected Weighted Rice scores is smaller when parties use restrictive centralized selection processes, 41%, than when parties use permissive selection procedures, 48%. Based on the results from both the Rice model as well as the Weighted Rice scores, the conditional effect of elections and selection on legislators' behavior seems to vary with *Regime Type*. In future research, I will examine specifically this assertion.

Similar to the Rice score party-level model, the Weighted Rice score model supports the conditional combined effect of electoral systems and intra-party candidate

Table 3.6: First Difference in Expected Weighted Rice Scores across Regime Types

Scenario	10%	50%	90%
First difference regime varies for parties selecting in restrictive selections under Closed-List PR	0.034	0.091	0.231
First difference regime varies for parties selecting in restrictive selections under Strong Preferential systems	0.17	0.41	0.58
First difference regime varies for parties selecting in permissive selections under Closed-List PR	0.027	0.076	0.219
First difference regime varies for parties selecting in permissive selections under Strong Preferential systems	0.28	0.48	0.60

selection processes on legislators' behavior[26]. Electoral systems that ensure a high degree of party cohesion minimize the effect of intra-party candidate selection processes on behavior. On the other hand, electoral system that encourage legislators to emphasize their unique personal reputation increases the importance of selection processes as party leaders might use restrictive procedures to punish reluctant legislators and to enforce discipline. Similarly, when parties use restrictive processes to select their candidates, the effect of electoral systems on how legislators behave is minimal. Yet, this effect becomes substantive when selection procedures are permissive. The combination of permissive electoral systems and permissive intra-party candidate selection procedures yield the lowest levels of cohesion.

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[26]Some issues with uncertainty could probably be solved with more data collection.

3.6 Conclusions

Obler (1973, 161) argued that "in light of the British, American and Belgian experiences, there seems to be neither a connection between national party leaders' capacity to sanction rebel MPs and the form of party organizations nor between national involvement in candidate selection and the degree of discipline party voting among legislators". This chapter examined whether electoral systems and candidate selection processes influence how legislators behave and how much they emphasize their unique individualistic traits and behaviors at the expense of the unified reputation of their parties. I argued that electoral systems and intra-party candidate selection processes are substitutive tools to achieve discipline.

Thus, I argued that the effect of candidate selection is redundant when the electoral system, especially *Ballot Type*, induces party-centered behavior. Even if the candidate selection procedure theoretically encourages parliament members to distinguish themselves from co-partisans and to behave in an individualistic manner, the fixed ballot electoral system ensures a high degree of cohesion. On the other hand, I argued that under non-constraining electoral systems with strong preferential ballots that incentivize legislators to behave in a personal vote-seeking manner, the effect of candidate selection procedures becomes substantial. Not only will permissive selection procedures intensity the incentives for personal vote seeking behavior even further, but, to the degree to which selection procedures provide party leaders control, they will mitigate the unbridled effect of the electoral system and induce discipline. By the same token, when the selection procedures are restrictive and induce discipline, the influence of electoral systems on legislators' behavior proves redundant. Yet, selection processes are democratized and permissive, the *Ballot Type* of the electoral

system might significantly affect how legislators cater to their respective constituents and how much they cultivate a personal or a party vote.

In light of the claim that with regards to legislators' behavior, electoral systems and candidate selections are substitutive to one another, I postulated a conditional combined effect of elections and selections on legislators' behavior. As a consequence, I maintained that one should observe intra-country cross-party variation in legislators' behavior. The ANOVA from Tables 3.1 and 3.4 clearly supports the notion that both intra-country and inter-country variation in Rice and Weighted Rice cohesion scores exist.

One also should observe that the effect of selection on behavior is greater when electoral systems are permissive than when they are restrictive and vice versa. In other words, one should observe that parties selecting by permissive processes should always exhibit less party-centered behavior than their counterparts, elected under the same electoral system, who select legislators via restrictive mechanisms. One should observe the difference in behavior between legislators selected in permissive and restrictive selection processes to be greater under electoral systems characterized by a strong preferential *Ballot Type* than under electoral systems with fixed ballots (see Figure 3.1(a)).

In this chapter, I used a party-level varying-intercept varying-slope hierarchical model to examine the separate and the combined conditional effect of elections and selection on legislators' behavior. I operationalized legislators' behavior at the party level using both Rice scores and Weighted Rice scores. Both models supported the hypotheses presented in this chapter, most importanty, the conditional concurrent

combined effect of elections and selections on legislators' behavior. The differences in behavior across parties that select via permissive and restrictive manners are larger when the electoral system is permissive than they are when the electoral system is restrictive. Also, parties elected under permissive and parties elected under restrictive electoral systems demonstrate great heterogeneity in behavior if they select via permissive intra-party candidate selection processes. These differences are small if the parties select via restrictive centralized processes. These findings suggest that despite variation in candidate selection processes, the variation in parties' behavior within a country should be small when the electoral systems is restrictive (see: Shomer (2009)), but they should be meaningful under a permissive electoral system. These findings demonstrate the need to examine the complex institutional environment within which legislators operate and by which they are influenced.

Although the party-level data supports the theory concerning the separate and combined effect of electoral systems and intra-party candidate selection processes, further examination is needed. The theory concerning the influence of selection processes and electoral systems on legislators' behavior is articulated at the individual level. It assumes that a rational goal-orientated legislator tries to maximize his or her probability of winning re-election and re-selection behaves according to incentives and constraints elections and selections induce.

Using an aggregate-level, that is, party-level, measure of legislators' behavior to examine a theory focusing on the individual level might engage us in an ecological fallacy. Testing the individual-level theory has too often relied only on party-level measures of behavior (Faas, 2003; Hazan and Rahat, 2000; Rahat and Hazan, 2001; Sieberer, 2006)(for a similar argument see: Shomer (2009)). Therefore, Chapter 4

tests my theory concerning the conditional combined effect of elections and selection on legislators' behavior using a model where legislators' behaviors are measured at the individual legislator level. Chapter 4 uses individual legislators as the unit of analysis. Not only do I use multiple measures of the response variable at multiple levels to increases the empirical implications of my theory (King, Keohane and Verba, 1994), and not only can I examine what individual level characteristics influence legislators' behavior, but I also ascertain that my party-level analysis of Chapter 3 does not suffer from an ecological inference fallacy.

3.7 Appendix

3.7.1 Descriptive Statistics for Party-Level Model

Table 3.7: Descriptive Statistics for Party-Level Model

Statistics	Pool	Vote	M	Ballot Type	Regime
N	246	246	246	249	249
Mean	0.58	1.02	34.22	0.68	0.88
Minimum	0	0	1	0	0
Maximum	2	2	120	2	1
Variance	0.61	0.52	2307.92	0.8	0.10
Median	0	1	10.53	0	1

Statistics	Coalition	Party Size	Selection	Rice	Weighted Rice
N	249	249	249	241	194
Mean	0.43	43.65	4.99	0.94	0.83
Minimum	0	2	1	0.52	0.20
Maximum	1	418	8	1	1
Variance	0.25	4551.38	4.9	0.01	0.03
Median	0	19	5	0.96	0.89

Figure 3.9: Density of Rice Scores
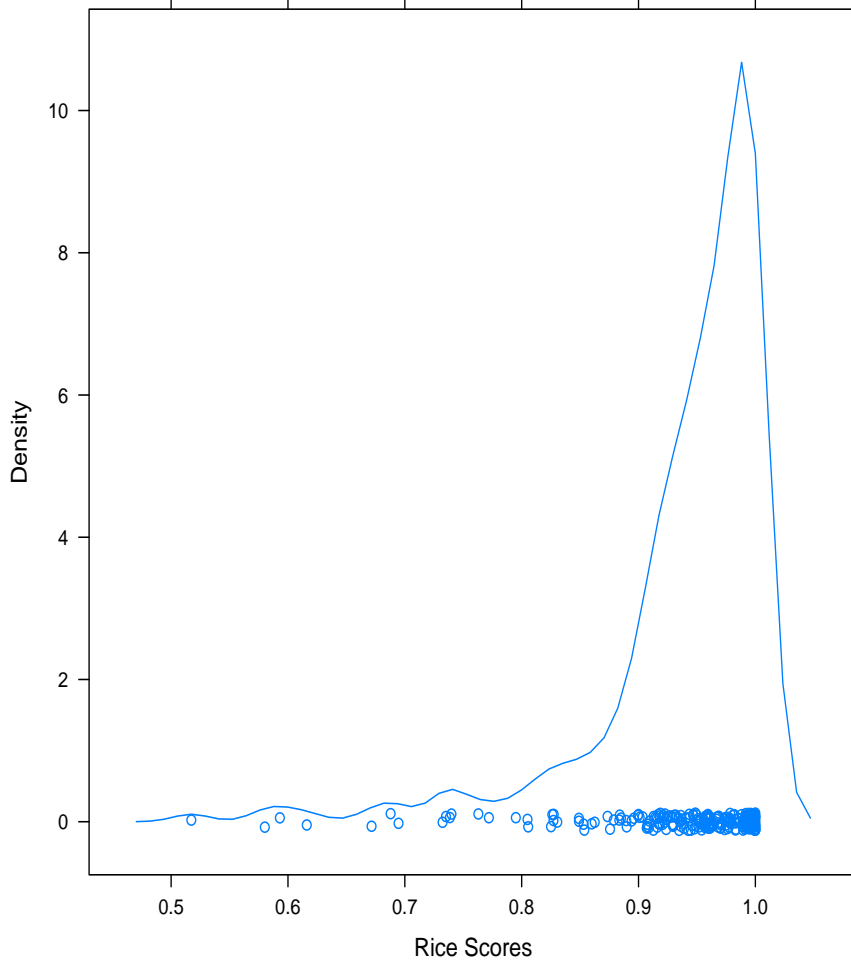
Figure 3.10: Density of Weighted Rice Scores
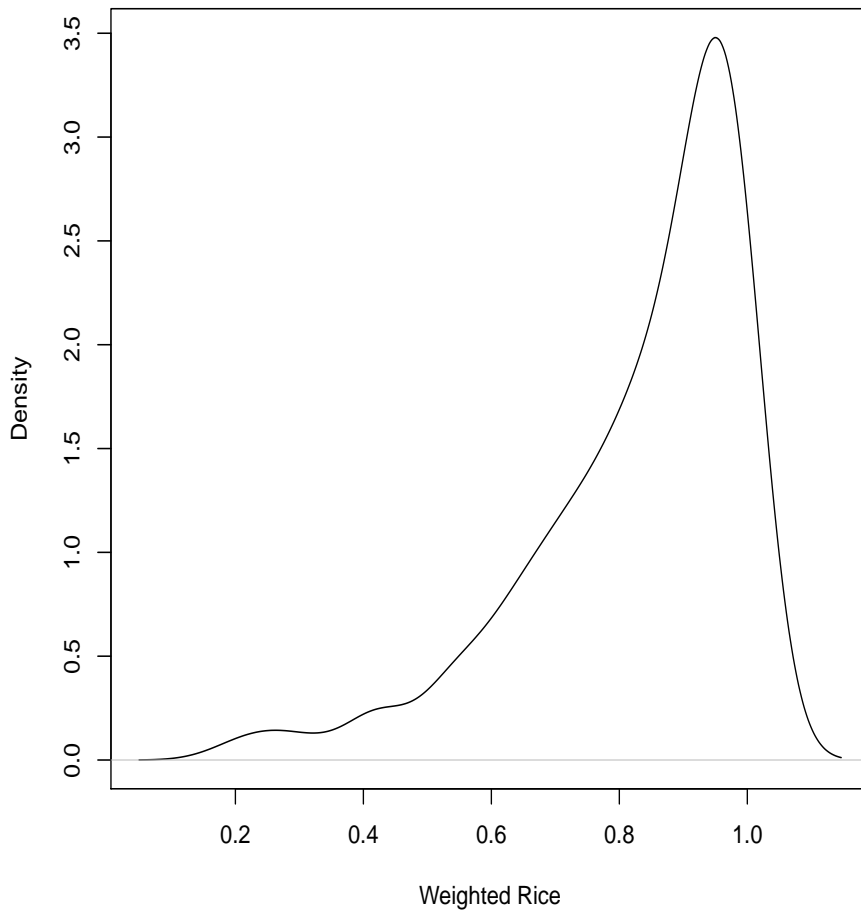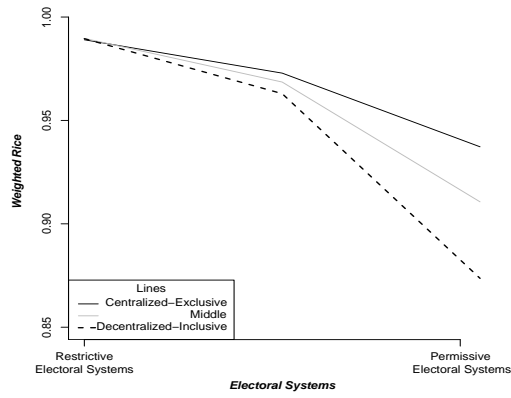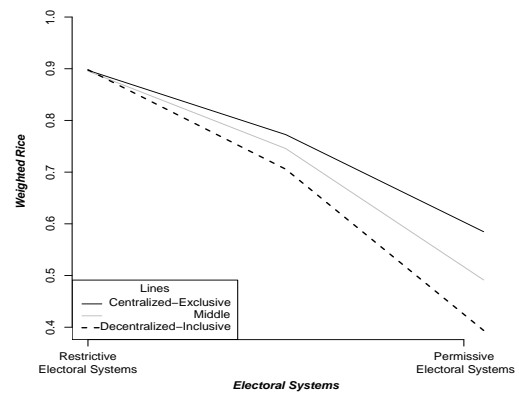
(a) Parliamentary Systems   (b) Presidential Systems

Figure 3.11: Expected Weighted Rice Scores in Parliamentary and Presidential Systems with *Selectorate* and *Decentralization*.

Figure 3.12: Expected Rice Scores with Different Permutations of the Key Explanatory Variables
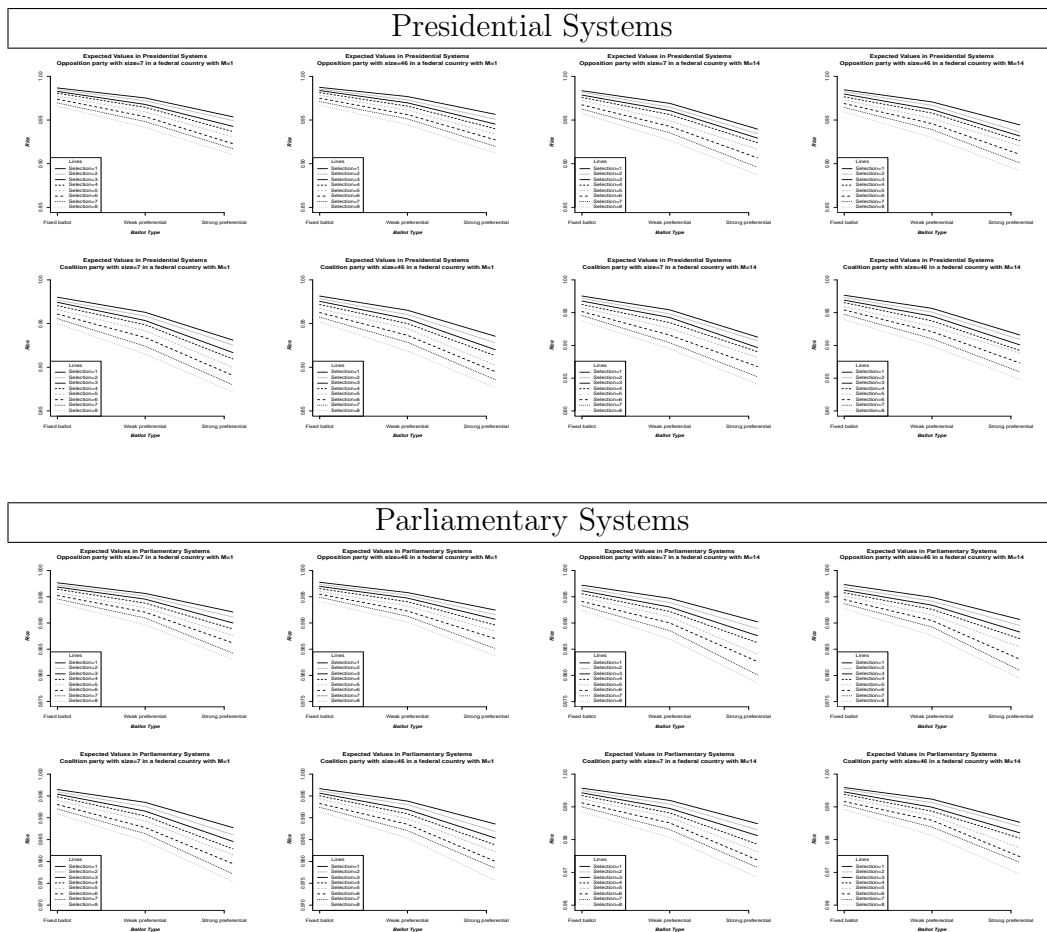
3.7.2 First Differences

Table 3.8: First Difference in Expected Rice Scores where *Ballot Type* Varies

Scenario	10%	50%	90%
First difference ballot varies for parties selecting in restrictive selections under parliamentary systems	-0.009	0.007	0.107
First difference ballot varies for parties selecting in restrictive selections under presidential systems	-0.059	0.037	0.387
First difference ballot varies for parties selecting in permissive selections under parliamentary systems	-0.024	0.013	0.147
First difference ballot varies for parties selecting in permissive selections under presidential systems	-0.140	0.061	0.490

Table 3.9: First Difference in Expected Rice Scores across *Regime Type* varies

Scenario	10%	50%	90%
First difference regime varies for parties selecting in restrictive selections under Closed-List PR	-0.001	0.014	0.102
First difference regime varies for parties selecting in restrictive selections under Strong Preferential systems	0.003	0.040	0.230
First difference regime varies for parties selecting in permissive selections under Closed-List PR	0.003	0.035	0.204
First difference regime varies for parties selecting in permissive selections under Strong Preferential systems	0.007	0.089	0.395

3.7.3   WinBUGS Code: Party-Level Model

```
   model {for(j in 1:J){
   y[j]~dnorm(y.hat[j], tau.y);
   y.hat[j]<-a[Session_ID[j]]+b.selec[Session_ID[j]]*selection[j]
             +b.opp*opp[j]+b.size*partysize[j];}

  tau.y<-pow(sigma.y, -2);
  sigma.y~dunif(0, 10);
  b.opp~dnorm(0, .001);
  b.size~dnorm(0, .001);

for(s in 1:S){ a[s]~dnorm(g.a.0.hat[s], tau.g.s.0);
g.a.0.hat[s]<-g.a.glob+g.a.ball*ballot[s]+b.pool*Pool[s]+b.vote*Vote[s]
             +b.distm*distm[s]+b.regime*regime[s]+b.unitary*unitary[s];
b.selec[s]~dnorm(g.b.0.hat[s], tau.g.b.0);
g.b.0.hat[s]<-g.b.glob+g.b.ball*ballot[s];}

g.a.glob~dnorm(0, .001); b.pool~dnorm(0, .001); b.vote~dnorm(0,
.001); b.distm~dnorm(0, .001); b.regime~dnorm(0, .001);
b.unitary~dnorm(0, .001); g.a.ball~dnorm(0, .001);
tau.g.s.0<-pow(sigma.tau.g.s.0, -2); sigma.tau.g.s.0~dunif(0, 10);
g.b.glob~dnorm(0, .001); g.b.ball~dnorm(0, .001);
tau.g.b.0<-pow(sigma.tau.g.b.0, -2); sigma.tau.g.b.0~dunif(0, 10);}
```

3.7.4 Variables, Measurements and Sources

Variables, Measurements and Sources	
`Rice`	Defined as: $$RICE_{pj} = \frac{|AYE_{pj} - NAY_{pj}|}{AYE_{pj} + NAY_{pj}}, \text{ for party } p \text{ on vote } j. \quad (3.6)$$ where I average across j to get party-level Rice score index. The following specifies the data sources for the country-sessions included in the analysis: *Denmark 94-95*: Pre-calculated Rice scores obtained from Jensen (2000). *Australia 96-98*: Calculated using data scraped and parsed from the Australian Hansard[27]. *Iceland 95-96*: Pre-calculated Rice scores obtained from Jensen (2000). *Chile97-00*: Calculated using data obtained from John Carey's Legislative Voting Project data. <http://www.dartmouth.edu/~jcarey/lvdatatable.htm>. 2009.). *Finland 95-96*:Pre-calculated Rice scores obtained from Jensen (2000). *Israel 03-06*: Calculated using original data I gathered (Shomer and Monroe, 2008)[28].

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[27]I would like to thank Delia Bailey for helping me scrape and parse the data.

[28]During the summers of 2004 and 2005, I photocopied more than 20, 000 votes registered by Israeli Knesset Members between 1992 and 2003 and scanned them into the computer. In addition, Professor Burt Monroe scraped the votes available online from the year 2003. While the 16th and 17th sessions of the Knesset, 2003-2006 and 2006-2008 offered automated data gathering, I had to manually code the data for the 13th, 14th and 15th Knessets. For the purpose of this dissertation, I coded a random sample of votes. In the future, I intend to code all votes for each of the legislative sessions. I used the $2003-2006$ data to determine the appropriate sample size (I used the $03-06$ data to determine what is the percentage of votes I need to sample so as the overall rate of abstentions, absences and present but did not vote remain the same between the whole data set and the sample after disregarding unanimous votes, less than 2.5% of Knesset Member votes with the minority)). Then, I generated random numbers that corresponded to the file numbers in my collected data. Using these random numbers, I and four Research Assistants manually coded the vote choice of each Knesset Member. Here are the total number of votes available for each Knesset term: 13th Knesset, 585 votes; 14th Knesset, 415 votes; 15th Knesset, 549 votes; 16th Knesset, 3493 votes; 17th Knesset,

Israel 06-08: Calculated using original data that I gathered (see: footnote 28).

Canada 94-97: Calculated using data obtained from John Carey's Legislative Voting Project data. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.).

New-Zealand 90-93: Calculated using data obtained from John Carey's Legislative Voting Project data. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.).

New-Zealand 93-94:Calculated by the author using data obtained from John Carey's Legislative Voting Project data. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.).

Sweden 94-95:Pre-calculated Rice scores obtained from Jensen (2000).

Switzerland 99-03: Calculated using data obtained from Prof. Simon Hug and Prof. Margit Tavits, with an official approval from the Swiss Parliament[29].

Norway 93-97: Calculated using data obtained from the Norwegian Social Science Data Services[30].

Norway 97-01:Calculated using data obtained from the Norwegian Social Science Data Services[31].

Norway 01-05:Calculated using data obtained from the Norwegian Social Science Data Services[32].

U.K 92-97: Calculated using data obtained from the Firth and Spirling data (Firth and Spirling, 2003*a*,*b*).

U.K 97-01: Calculated using data obtained from the Firth and Spirling data (Firth and Spirling, 2003*a*,*b*).

U.K 01-05: Calculated using data obtained from the Firth and Spirling data (Firth and Spirling, 2003*a*,*b*).

Canada 97-00: Calculated using data scraped and parsed from the Canadian Parliament Hansard (see: Footnote 27.).

Canada 00-04:Calculated using data scraped and parsed from the Canadian Parliament Hansard (see: Footnote 27.).

Ireland 89-92: Calculated using data scraped and parsed from the Irish House of Representatives' Hansard (see: Footnote 27.).

Ireland 92-97: Calculated using data scraped and parsed from the Irish House of Representatives' Hansard (see: Footnote 27.).

Ireland 97-02: Calculated using data scraped and parsed from the Irish House of Representatives' Hansard (see: Footnote 27.).

Ireland 02-07: Calculated using data scraped and parsed from the Irish House of Representatives' Hansard (see: Footnote 27.).

Israel 92-96: Calculated using an original data set I gathered (see: Footnote 28.).

Israel 96-99: Calculated using an original data set I gathered (see: Footnote 28.).

Israel 99-03: Calculated using an original data set I gathered (see: Footnote 28.).

New-Zealand 02-05: Calculated from party-level voting data obtained from The New Zealand Parliament Hansard.

Belgium 95-99: Calculated using data provided by Prof. Abdul G. Noury.

Poland 97-99: Calculated using data obtained from John Carey's Legislative Voting Project data (Carey, John. 2009. Legislative Voting Project. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.).

Czech Republic 96-98: Calculated using data obtained from John Carey's Legislative Voting Project data. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.).

Brazil 02-07: Calculated using data obtained from Figueiredo and Limongi Figueiredo and Limongi (2008)[33].

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[33]I thank Prof. Scott Desposato for suggesting this data source. I also thank Prof. Limongi for providing the data.

Austria 96-97: Pre-calculated Rice scores obtained from Wolfgang and Marcelo (2003).

Finland 03: Pre-calculated Rice scores obtained from Pajala, Jakulin and Buntine (2005).

Czech Republic 98-02: Calculated using data obtained from Prof. Margin Tavits.

France 62-67: Pre-calculated Rice scores obtained from Bowler (2000)

Germany 53-57: Pre-calculated Rice scores obtained from Bowler (2000)

Germany 57-61: Pre-calculated Rice scores obtained from Bowler (2000)

Germany 61-65: Pre-calculated Rice scores obtained from Bowler (2000)

Germany 87-90: Pre-calculated Rice scores obtained from Bowler (2000)

Nicaragua 00: Calculated using data obtained from John Carey's Legislative Voting Project data (Carey, John. 2009. Legislative Voting Project. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.).

U.S 63-65: Calculated using Poole and Rosenthal roll call data (<`http://wwww.voteview.com`>).

U.S 93-95: Calculated using Poole and Rosenthal roll call data (<`http://wwww.voteview.com`>).

Argentina 05-07: Calculated using data received from Prof. Mark Jones.

Weighted Rice

The Average Weighted Rice scores are defined as (similar to Morgenstern (2004)):

$$AWRICE_p = \frac{\sum_{j=1}^{n} RICE_{pj} * WEIGHT_j}{\sum_{j=1}^{n} WEIGHT_j}, \text{ for party } p. \quad (3.7)$$

where $RICE_{pj}$ is defined as in Equarion 3.1, and n is the total number of votes. The weight of vote j—$WEIGHT_j$—is defined as:

$$WEIGHT_j = 1 - \left| \frac{AYE_j - NAY_j}{AYE_j + NAY_j} \right| \quad (3.8)$$

I used the data specified above for the Rice score outcome variable to calculate the Weighted Rice score using Equation 3.2. The number of country-session used in the Weighted Rice model is smaller, as I could not deduce the weights on each vote which measures the degree of its closeness for those countries for which Rice score was pre-calculated.

Ballot Access

Measures using the index from Figure 2.1. I collected data from the following secondary sources: Bille (2001); Carty and Eagles (2003); Catt (1997); Cross (2002, 2004); De-Luca, Jones and Tula (2002); Deegan-Krause (2006); Deschouwer (1992); Erickson (1997); Farrell (1994); Frizzell and Pammett (1997); Galligan (1999, 2002); Hansen and Saglie (2005); Hazan and Voerman (2006); Hopkin (2001); Janda (1980); Johns (2000); Katz and Mair (1992); Kristjansson (2002); Kuitunen (2002); Lundell (2004); Miller (1999); Mitchell (2006); Mulgan (2004); Navia (2008); Norris and Lovenduski (1997); Pammett and Dornan (2001); Rahat (2002, 2008); Rahat and Sher-Hadar (1999); Rosenthal and Subrata (1969); Sayers (1999); Siavelis and Morgenstern (2008b); Szczerbiak (2001); Young and Cross (2002) as well as Rahat's data-set on candidate-selection processes, and Crisp et al. (2004) data-set on candidate selection procedures. Data for Nicaragua was obtained via personal communication with Prof. Santiuste (Santiuste, Salvador. <ssanti@usal.es> 2009, March.19. Information concerning Selection Processes in Nicaragua [Personal email]. (2009, March 19)).

Coalition

Measures whether the party was in the opposition, coded 0, or coalition, coded 1, in the period examined. In presidential system, this variable examines whether this is the president's party or not. I collected most data from Keefer's 2006 Database of Political Institutions (DPI). I supplement this data using Woldendorp, Keman and Budge (2000) and the CIA World Fact Book (Central Intelligence Agency. 2009. World Fact Book, 2009. <https://www.cia.gov/library/publications/the-world-factbook/index.html> 2009, Jan. 7).

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Size	Measures the number of seats the party held in the period examined. I collected data from Keefer's 2006 Database of Political Institutions (DPI) and Woldendorp, Keman and Budge (2000).
Pool	Measures whether a candidate for national office can benefit from electoral support for other candidates in his party, possibly in other districts. It measures whether and at what level the system pools votes to calculate seat allocations. Coded 0 if votes cast are pooled across the whole party to determine the allocation of seats. Coded 1 if votes are pooled at the sub-party level and coded 2 if votes cast for a candidate contribute only to that candidate's electoral success. Note that according to this definition (and as oppose to Carey and Shugart (1995)), this definition leads me to classify SMD systems as 2 on the Pool variable because votes in SMD are pooled neither to the party or the sub-party level. I used the Political Particularism Around the World Data set (Seddon et al., 2002), as well as the Electoral Systems and the Personal Vote Data set (Johnson and Wallack, 2007).
Vote	measures "limitations on the number of individuals that voters can support" (Seddon et al., 2002, 12). It is coded as 0 where a voter can cast a single vote for a party, 1 where voters cast multiple votes for candidates who might not be from the same party. I coded electoral systems where voters cast a vote for a local candidate and a vote for a national candidate as 1. A code of 2 identifies systems where voters have a single vote for a single candidate. SMD electoral systems are coded as 2 as voters are given a single vote for a single candidate. This coding stands in opposition to Carey and Shugart (1995)).
District Magnitude	Measures as the average district magnitude from the viewpoint of the individual legislator. It is a weighted average of the district magnitudes in a country. I calculated the weights by how many legislators run in districts of each size. Thus, in a country with 50 single member districts, and one 150 member national district *District Magnitude* will be equal to $(150 * 150 + 50 * 1)/200$ equals to 112.75. I obtained data from the Political Particularism around the World Data set (Seddon et al., 2002) and the Electoral Systems and the Personal Vote data-set (Johnson and Wallack, 2007).

Ballot Type	Measures how much control voters have over the ballot on the general election day. Differentiates between fixed ballots, coded 0, that voters cannot change, weak preferential ballots, coded 1, where predetermined list-order is important, but preferential vote may limit its effect, and strong preferential ballots, coded 2, where "preference votes are the sole basis on which individual legislators are chosen" (Karvonen, 2004, 207). The variable was coded using Lundell and Karvonen (2003). SMD systems with a single candidate presented to the voters at the election stage coded as 0 since voters cannot disturb a "list" at the general election stage. On the other hand, if a SMD system presents multiple candidate from the same party to the voters, then voters can disturb the list, and their preferential vote is the only determinant of the candidate chosen; these systems are coded 2. Using this logic for classifying SMD, I classify Mixed Member systems as 0, since the CLPR tier and the SMD tier are both coded as fixed ballots, 0.
Regime Type	Indicates whether the country is a presidential, coded 0, or a parliamentary system, coded 1. I took the data for this variable from the "system" variable in Keefer's 2006 Database of Political Institutions (DPI). This variable in the DPI data set has 3 codes: 2 signifies parliamentary systems, 1 codes an assembly elected president, and 0 is for presidential systems. Systems with unelected executives, those scoring a 2 or 3 on the Executive Index of Political Competitiveness in the DPI data set, are classified as presidential systems, coded 0. Countries in which the president is elected directly or by an electoral college (whose only function is to elect the president), in cases where there is no prime minister, are also coded as 0. In countries with both a prime minister and a president, the classification into presidential or parliamentary systems considers the following factors: a) Veto power: can the president veto legislation and does parliament need a super-majority to override the veto?. b) Can the president appoint and dismiss the prime minister and/or other ministers?. c) Can the president dissolve the parliament and call for new elections?. Thus, a country with both a prime minister and a president will be classified as a presidential system if (a) is true or if (b) and (c) are true. Systems where the legislature elects the chief executive are classified as parliamentary, coded 2, with one caveat: in cases where the legislature elects the prime minister but for a fixed period will be classified as presidential systems (0). Thus, although DPI classifies Switzerland a parliamentary, Switzerland is a hybrid type where the prime minister is elected by legislature but for a fixed period. The legislature cannot vote no confidence in the executive. Thus, in this dissertation, I coded it presidential (0).

| Unitary | Measures whether all powers reside in a central sovereign parliament such that power is not shared, coded 0. In federal systems, coded 1, power is divided between one central and several regional governments. I took this data from the Comparative Data Set on Political Institutions (Lundell and Karvonen, 2003), as well as the PolityIV (Marshall and Jaggers, 2005). |

Chapter 4

The Distinct and Combined Effect of Electoral Systems and Selection Processes at the Individual Level

As a Knesset Member you need to know how much you are a Knesset Member for the public and how much for the party. I think we need to put greater emphasis on representation. A Knesset Member needs to remember he represent a constituency. For me, Jerusalem residence are my priority, since I was selected in primaries in Jerusalem.

Knesset Member Ophir Pines-Paz
The Israeli Democratic Institute. 2010.
New Knesset Members and Role Perceptions.
Parliament, 1997.
<http://www.idi.org.il/Parliament/1997/Pages/1997_16/C_16/Parliament_Issue_16_c.aspx>
2010, March. 22.

4.1 Introduction

Ophir Pines-Paz was first elected to the Israeli Knesset in 1996 as a representative of the Labour party. He was selected in primaries as a representative of the Jerusalem constituency. When asked in an interview about his perceptions about his role as a Knesset Member and how he conceives his representation style, he argued that since Jerusalem residents selected him, he is, first and foremost, their representative. As such, he is willing to cross the party line and to put more emphasis on personal vote-seeking behavior instead of the party's collective reputation. In a sense, Ophir Pines-Paz's quote articulates the hypothesized effect of intra-party candidate selection processes on legislators' perceptions of their roles and representation styles. However, how would the CLPR Israeli electoral system, with its one national district, interact with the candidate selection processes by which Knesset Members are selected and influence legislators' representation styles and behaviors? Will Ophir Pines-Paz, and Labour party Knesset Members in general, emphasize their personal reputations at the expense of their party's as Pines-Paz claims?

The institutional environment that surrounds them shapes, to a great extent, legislators' behavior and their representation styles. Institutions create incentives for and constrain legislators and therefore determine how much they will emphasize their own personal characteristics and individualistic behavior and how much they will be loyal party members who obey the party leaders and help maintain a cohesive unified party record. Electoral systems and intra-party candidate selection processes are among the most important institutions that shape the context within which legislators operate.

In this dissertation, I examine the separate and the combined conditional effect of electoral systems and candidate selection processes on legislators' behavior. Chapter 2 differentiated selection processes from electoral systems by distinguishing between *Ballot Access* and *Ballot Type* and examined their empirical relationships. In Chapter 3 I presented the theory concerning the concurrent combined conditional effect of elections and selections on legislators' behavior and emphasized the need to theorize and to examine empirically the convoluted institutional environment within which parliament members operate. I then presented empirical evidence at the party level and supported the assertion that the effect of selection procedures on legislators' behavior depends upon a country's *Ballot Type* (and vice versa).

This chapter further examines the distinct and combined effect of elections and selection on legislators' behavior using an individual-level analysis. The theoretical propositions concerning the effect of institutions on legislators' behavior are articulated at the individual level, not at the party-level. Rational individual parliament members who seek to maximize their probability of re-selection and re-election evaluate the incentives and constraints produced by institutions and adjust their behaviors accordingly. Using an aggregate-level, a party-level, measure of legislators' behavior, such as a party-level Rice score, to test the hypotheses might lead to an ecological fallacy. Indeed Kramer (1983, 92) argued that "the importance of attempting this kind of confirmation [confirming the results at the individual level- Y.S] is widely appreciated". Thus, Chapter 4 relies on a prominent line of research regarding economic voting.

While research that focused on both voting behavior (Kramer, 1971; Lewis-Beck and Stegmaier, 2000; MacKuen, Erikson and Stimson, 1992; Tufte, 1975) and on

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American presidential approval rates (Erikson, 1989; Mueller, 1970; Ostrom and Simon, 1985), showed that at the aggregate level, the economy moves political behavior, the results at the individual level differed. At the aggregate level it seemed that "the citizen votes for the government if the economy is doing all right; otherwise the vote is against" (Lewis-Beck and Stegmaier, 2000, 183). However, other scholars (Fiorina, 1978; Kramer, 1983; Sears, Lau, Tyler and Harris, 1980) find little evidence, at the individual level, for the assertion that economic conditions and self-interest influence policy attitudes and presidential voting. These contradictory results indicate that evidence at the individual level do not have to correspond to evidence at the aggregate level and that aggregate-level evidence for an individual-level theory might lead to erroneous conclusions. This chapter asserts one must implement similar logic to the analysis of selection processes and electoral systems and their influence on legislators' behavior.

An individual-level model can ascertain that my party-level models' results do not suffer from an ecological fallacy, but it also enables one to examine and test theories about individual characteristics that might influence legislators' behavior. For example, using an individual-level measure of behavior allows me to test whether legislators' genders affect their representation styles and behaviors. Examining whether female legislators behave differently than male legislators sheds light on a form of substantive representation (Pitkin, 1967). Indeed, literature on the effect of gender on legislators' voting behavior is inconclusive (Childs, 2002; Tamerius, 2010; Thomas and Welch, 1991), and my analysis provides a comparative means to examine these

contradictory hypotheses[1].

This chapter, therefore, presents an individual-level model that examines individual legislators as the unit of analysis. Section 4.2 repeats the main theory and hypotheses concerning the distinct and combined conditional effect of electoral systems and intra-party candidate selection processes on legislators' behavior. Section 4.3 specifies the research design, operationalizations, and the model that I use to test the hypotheses. Suction 4.4 presents the results, and Section 4.5 discusses their meaning. Section 4.6 concludes that the results further support the assertion that elections and selections conditionally affect legislators' behavior.

4.2 The Distinct and Combined Effect of Electoral Systems and Candidate Selection Processes on Legislators' Behavior

Electoral systems and intra-party candidate selection processes are among the central institutions that shape how legislators cater to their prospective constituents. The literature identifies that to the degree to which party leaders control the access to and the rank on the party's ballot, how much the system pools votes from the individual legislator to his or her co-partisans, and whether voters cast a single vote for a party influence whether legislators face incentives to behave in a party-centered

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[1]Cain, Ferejohn and Fiorina (1987) argued that an individual member's electoral safety is an important determinant of personal vote-seeking incentives. Unfortunately, I was unable to collect the needed cross-country data to examine this assertion. In the future, I will try to collect this information and include it in the analysis.

manner and to enhance their party's collective reputation (Carey, 2009; Carey and Shugart, 1995; Crisp et al., 2004; Depauw and Martin, 2009; Kam, 2009; Mitchell, 2000; Shugart, Valdini and Suominen, 2005). Similarly, research argues that restrictive intra-party candidate selection processes that invest the selection power in the hands of an exclusive group of national party leaders create incentives for legislators to behave in a party-centered manner. Alternatively, if parties select legislators through permissive selection processes such as primaries, the candidates vie for votes from an amorphous, relatively large group of voters and must compete with their co-partisans for these votes. Thus, under such circumstances, one hypothesizes legislators enhance their own individualistic reputations, and behave in a "maverick" way to differentiate themselves from their co-partisans (Bar, 1996; Hazan, 1999, 2000; Hix, 2004; Siavelis and Morgenstern, 2008b; Sieberer, 2006).

As Chapter 3 explain, the literature usually amalgamates electoral systems and intra-party candidate selection processes. Carey and Shugart (1995) defined one of the four electoral aspects hypothesized to shape legislators' incentives for personal reputation, *Ballot*, as how much party leaders control the access to and the rank on the party's ballot. This definition combines electoral systems and candidate selection procedures. While the electoral system partially defines the degree to which party leaders control the access to and the rank on the ballot, such as in OLPR versus CLPR systems, the internal procedures that parties adopt to select their lists and candidates also play a part. Yet the seminal work of Carey and Shugart (1995) offers no real differentiation between election factors and selection factors, as the authors combined elections and selections into the single indicator. As a consequence, the vast majority of the theoretical and empirical literature mimics Carey and Shugart's classification and combines electoral systems and candidate selection procedures, treating selection

effectively as a part of the electoral system.

As I argued in Chapters 2 and 3, electoral systems and intra-party candidate selection processes are two separate and distinct institutions. They might produce contradictory incentive structures for legislators. Italy, before 1994, used an OLPR system (Chang and Golden, 2006). The electoral system encouraged representatives to behave in a personal-centered manner and to emphasize their unique reputations. The Christian Democrats, however, selected their candidates in a relatively restrictive manner where non-selected electoral committees nominated candidates. This candidate selection procedure induced party vote-seeking incentives for legislators and encouraged them to emphasize the collective unified party reputation. If a party in a country that uses an OLPR system selects its candidates via restrictive procedures, the party's legislators face conflicting incentives. By the same token, if a party in a country that uses a CLPR system selects its candidate via primaries, such as the Likud party in Israel before the 1996 elections, the party's legislators face conflicting incentives as well. The electoral system encourages them to emphasize their collective party's reputation, but the party's selection process encourages them to distinguish themselves from their co-partisans to maximize their probabilities of winning re-selection. Only by differentiating selection procedures from electoral systems can one begin theorize about the combined effect these institutions will have on legislators.

Electoral systems and selection processes operate at different levels, and this provides another reason to separate them. I argued that electoral systems operate mostly at the country level, but candidate selection processes, usually determined by the parties, operate at the party-level. Combining elections and selections does not enable one to account for these differing levels and to recognize intra-country, cross-party

variation in selection processes and, as a consequence, in legislators' behavior. As Chapter 2 explained, I differentiate between electoral systems and selection processes by distinguishing *Ballot Type*, a country-level characteristic, from *Ballot Access*, a party-level characteristic.

Using this difference, I can articulate the separate effect of electoral systems and the separate effect of intra-party candidate selection processes on legislators' behavior. Regarding electoral systems, I argue that permissive electoral systems where *Ballot Type, Pool* and *Vote* creates incentives for personal-vote seeking behavior yield less discipline in parties. Alternatively, when the electoral system fixes *Ballot Type,* pools votes to the party level, and allows voters to vote using a single vote at the party level, one should observe legislators who toe their party lines and maintain a high degree of discipline (Hypothesis 1).

I hypothesize that *Ballot Access* influences legislators' behavior directly as well. Specifically, more permissive selection mechanisms, those that are decentralized and inclusive (see: Figure 2.1) yield less disciplined parties. For example, Holcombe and Gwartney (1989, 673) argued that "the primary system that has been becoming increasingly more important in the United States also lessens the legislator's dependence on the party" and Ansolabehere, Hirano and Snyder (2007, 1) claimed that "loyalty in Congress did fall among a state's congressional delegation following the introduction of the primary". On the other hand, when a small group of national party leaders control the selection process, individual legislators face incentives to maintain a high degree of party cohesion and to adhere to the party's leaders. Indeed Field and Siavelis (N.d., 12) argued that "one of the best ways to ensure the disci-

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pline is control over ballot access, providing MPs the incentives to toe the party line"[2].

The main theoretical innovation, however, of the dissertation relates to the argument about the combined conditional effect of electoral systems and selection processes on legislators' behavior. In Chapter 3 I presented a rationale for a conditional combined effect where the influence of selection processes on a legislator's behavior depends upon the country's *Ballot Type* and where the effect of electoral systems, *Ballot Type* more specifically, depends upon the type of selection processes.

Specifically, I claim that electoral systems and intra-party candidate selection processes are substitutive means to achieve party discipline. Hence, when *Ballot Access* (*Ballot Type*) creates incentives for party-centered behavior, the influence of *Ballot Type* (*Ballot Access*) should be minimal. On the other hand, when the voters elect legislators under strong preferential electoral systems, the effect of selection procedures on their behaviors increase: when the selection mechanism provides party leaders with means to enforce the party's line, one observes party-centered behavior. Thus, I argue that differences in legislators' behavior, as a consequence of variation in selection processes, should be greater under permissive electoral systems that encourage personal vote-seeking behavior than under electoral systems that create party-centered incentives.

Hypothesis 1: separate effect of electoral systems: More permissive electoral systems, where *Ballot Type, Pool*, and *Vote* encourage personal vote-seeking incentives

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[2]Depauw and Martin (2009) found support in a bivariate analysis that centralization of selection procedures has a significant impact on party unity and that as inclusiveness of selection processes increases, party unity suffers.

yield less discipline and vice versa.

Hypothesis 2: separate effect of selection processes: More permissive selection processes yield less discipline and vice versa.

Hypothesis 3: the combined conditional effect of elections and selections: The effect of candidate selection procedures on legislators' behavior should increase under permissive compared to restrictive electoral systems.

As I have argued, the theoretical arguments concerning institutions and their influence on legislators' behavior are articulated at the individual level. Using an aggregate party-level measure of behavior might run the risk of encountering an ecological fallacy. Therefore, in this chapter, I test the hypotheses using the appropriate individual level of analysis.

4.3   Data, Operationalization, and Models

The individual-level model uses a three-level hierarchical model where individual legislators are nested within their parties, and the parties in turn are nested within countries. This structure allows me to account for the different levels at which elections and selections operate. Electoral systems operate at the country level, and candidate selection processes are a party-level characteristic. The model allows for the possibility of cross-country, cross-party, and cross-legislator variation in legislators' behavior that my theory implies. Moreover, the hierarchical model enables the cross-level interaction between *Ballot Type* and *Ballot Access* to capture the condi-

tional combined effect of elections and selections.

In this chapter, the individual legislator is the unit of analysis. I use an individual-level measure of legislators' behavior. For each legislator, I define the main outcome variable as the distance between the legislator's ideal point and the party median's ideal point estimated via a one-dimensional Bayesian Item Response Theory Model (IRT). After estimating a one-dimension IRT model for each country-session for which I have data[3], I have standardized the ideal points across <u>all</u> legislators[4], and for each legislator have calculated an ideological distance measure.

Thus, I follow Clinton, Jackman and Rivers (2004) and define x_i as the ideal point, ideological position, of legislator i, ζ_j as the Yea position of bill j and ψ_j as

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[3]While a one dimensional IRT is appropriate for some of the country-sessions in the sample and explains the vast majority of the variance, in others, one needs a second dimension. Nonetheless, in this dissertation, I focus exclusively on the ideal points on a single dimension and save for future analysis the examination of higher dimensions. One can hypothesize that the party-effect should be the strongest on the first dimension and should be less pronounced in the other, often less important, dimensions. Future research will examine these and other assertions.

[4]One of the main pitfalls in comparing ideal points across legislatures is that they are relative to one another and depend upon the votes introduced and the specific agenda introduced before the legislators. Moreover, the dimensionality of ideal point estimates from one country need not match that from another country. To sum, each ideological space is defined only within a single country-session. Using the "Common Space" DW-NOMINATE that assigns one set of ideal point coordinates for a legislator's legislative career might have alleviated this issue by estimating the ideal points of all legislators in my data set as if they belonged to the same legislature. However, "Common Space" estimates use bridge observations. One can apply them to the U.S. House and Senate where 635 legislators have served both in the House and the Senate (Carroll, Lewis, Lo, McCarty, Poole and Rosenthal, 2009). Unfortunately, this technique cannot work in a cross-national comparison where no legislator can function as a bridge observation across countries. Therefore, to enable comparison, I standardized the ideal points across all legislators in my data set. The model presented is a two-stage estimation and not a hierarchical ideal point model (Gabel, Hix and Malecki, N.d.; Malecki, 2008, N.d.). I opted to use the two-stage estimation where uncertainty from the first stage is not incorporated into the second stage as I measure my outcome variable, legislators' behaviors, as the distance between a legislator's ideal point and the median position of the party and not the ideal point itself. Moreover, the model presented is a three-level hierarchical model, while Malecki (2008) presents a two-level hierarchy. My modeling strategy does not address <u>directly</u> the possibility that legislators' latent preferences can change over time (Martin and Quinn, 2002).

its Nay position on a one-dimensional issue space (where x_i, ζ_j, $\psi_j \in \mathbb{R}^1$). Based on micro-foundation theories, and based on a random utility function (the random utility model assumes that an individual legislator's utility of voting Nay/Yea is the sum of a stochastic as well as a deterministic part), I argue that legislators have utilities from voting either Yea or Nay on bill proposal j. Specifically, legislator's i utility from voting Yea on bill j is $U_i(\text{Yea}_j) = -(x_i - \zeta_j)^2 + \eta_{ij}$, and his or her utility from voting Nay on bill j is $U_i(\text{Nay}_j) = -(x_i - \psi_j)^2 + \nu_{ij}$ (η_{ij} and ν_{ij} are disturbances terms[5]). A legislator will vote Yea on bill j if the utility from voting Yea is greater than her utility of voting Nay. In other words, legislator i will vote Yea on bill j if the utility differential $y_{ij}^* = U_i(\zeta_j) - U_i(\psi_j)$ is ≥ 0, and will vote Nay otherwise. Thus, one can translate this spatial theoretical model to a statistical model by postulating the probability that legislator i will register a Yea vote on bill j as:

$$
\begin{aligned}
\Pr(y_{(ij)} = 1) &= \Pr(U_i(\text{Yea}_j) > U_i(\text{Nay}_j)) \qquad (4.1)\\
&= \Pr(y_{ij}^* \geq 0)\\
&= \Phi(\beta_j x_i + \alpha_j)
\end{aligned}
$$

where, $\beta_j = 2(\zeta_j - \psi_j)/\sigma_j$ is the item discrimination parameter

$\alpha_j = (\psi_j^2 + \zeta_j^2)/\sigma_j$ is the item difficulty parameter

and Φ is a probit link—the CDF of a standard normal distribution (mean zero and variance 1).

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[5]I follow Clinton, Jackman and Rivers (2004) and assume η_{ij} and ν_{ij} have a joint Gaussian distribution, where $E(\eta_{ij}) = E(\nu_{ij})$, and the variance of their difference ($var(\eta_{ij} - \nu_{ij})$) equal σ_j^2 (Clinton and Jackman, 2009).

The likelihood function for the parameters β, α and x_i is given by:

$$\mathcal{L}(\boldsymbol{\alpha}, \boldsymbol{\beta}, \mathbf{x}|\mathbf{Y}) = \prod_{j=1}^{J}\prod_{i=1}^{I} \Phi(\beta_j x_i - \alpha_j)^{y_{ij}}[1 - \Phi(\beta_j x_i - \alpha_j)]^{1-y_{ij}} \tag{4.2}$$

where, Y is the $i \times j$ data matrix that includes 0's and 1's corresponding to Nay and Yea votes respectively[6].

Since in Bayesian analysis, the posterior distribution is proportional to the likelihood function times the prior distribution, the model must specify priors for J α's, J β's and I x_i's. Again, following Clinton, Jackman and Rivers (2004) I provide vague priors for α's and β's and draw them from a multivariate normal distribution, with mean zero and a large variance. I draw the prior for the ideal points from a normal distribution with mean 0 and variance 1 for most legislators. I do not give all legislators this prior because of identification issues in IRT models.

IRT models face two identification concerns. Rotational invariance means that the estimation procedures by themselves cannot determine the direction of left (liberal) and the direction of right (conservative) because the value of the likelihood function remain intact if one multiplies all the parameters by -1: "Our priors do not preclude multiplying all model parameters by -1 reversing the orientation of the recovered policy dimension, but yielding an identical fit to the data"(Jackman, 2001, 231). I gain leverage over this issue by constraining $d(d+1)$ constraints on the ideal

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[6]Some elements in the data matrix Y are missing values representing non-voting, abstentions and absences. While these missing values are important (Desposato, 2006b; Forgette and Sala, 1999; Poole and Rosenthal, 1997; Rosas and Shomer, 2008, 2009; Rothenberg and Sanders, 1999, 2000) in this specification, I do not model them. Thus, I follow Clinton, Jackman and Rivers (2004) and use the MCMC algorithm, which treats the missing values as more parameters to estimate, and use the multiple imputation through data augmentation step (Albert and Chib, 1993) that assumes the missing values are ignorable (Rubin, 1976).

points, where d is the number of dimensions. In my analysis, which estimates a one-dimensional IRT model for each country-session, I overcame the rotational invariance identification problem and identify the polarity of the model (Martin and Quinn, 2006) by constraining two legislators' ideal points in each country-session to have a prior mean of -1 and 1 and a very small variance prior. This effectively, puts a spike prior for these legislators and effectively constrains their ideal points to -1 and 1. For more information on this process, see R documentation for the pscl package at `http://pscl.stanford.edu/`.)[7]. The prior on all item parameters (α and β) are set to have a mean zero and a variance of a 100[8].

The scale invariance, the second problem in IRT models, means that the ideal points and the item parameters are "identified only up to an arbitrary scale factor"(Martin and Quinn, 2002, 139). The prior variances for α, β and x_i anchor the scale on which they are measured. Specifically, I constraint the ideal points to have a

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[7]I also use the normalization that the ideal points have mean zero and unit variance

[8]In a recent exchange Carroll, Lo, Lewis, Poole and Rosenthal (2009) argued that the specification of the priors on the item parameters and ideal points is important and drew attention to the sensitivity of the results to the specification of the priors. Clinton and Jackman (2009) replied that the imposition of the normalization for identification purposes where the ideal points have mean 0 and variance 1 ensures that the variance for the identified item parameters parameters will no longer be the product of the variance of the unidentified ideal points and the variance of the unidentified item parameters. Rather, the variance of the identified α and β is only a function of the $\sigma^2\beta$. The authors agree with Carroll, Lo, Lewis, Poole and Rosenthal (2009) that the analysis may be sensitive to the specifications of the priors, and show that not only does the performance of the MCMC algorithm decreases as priors on item parameters becomes larger, but this factor also affects the estimation of ideal points of "extreme" legislators such as United States Senator Barack Obama: "It is apparent that the less we are prepared to assume about the properties of the votes apriori the less we wind up knowing, relatively, about Obama's ideal point aposteriori" (Clinton and Jackman, 2009, 607). Nonetheless, Clinton and Jackman (2009) claim that the results are robust if the prior on the item parameters is larger than 25. The large sensitivity is when moving from assuming a prior variance of 1 to a prior variance of 25. Moreover, the authors claim that the sensitivity to prior specifications only affects extreme legislators: "Thus, for almost all of the others, the data dominate the prior" (Clinton and Jackman, 2009, 607). In light of this discussion, confident that the priors I used are appropriate.

mean zero and a variance of 1 (Rivers, N.d.). For each of the 30 country-sessions in my data-set I have estimated, then, a one-dimensional IRT model using pscl package in R[9].

After estimating an IRT model for each of the country-sessions in the data set and standardizing the ideal points across all legislators[10], I calculated for each individual legislator a measure of his or her distance from party's leaders under the assertion that the less disciplined legislators are the less they vote according to the directions of their party's leader. Hence, the less disciplined legislator will show a greater distance between his or her ideal point and the party leader's. I operationalized the party leader's ideal point position as the median of all party members' ideal points[11]. Equation 4.3 defines the outcome variable used in this chapter.

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[9]I checked the convergence of the IRT model for each country-session using trace-plots, autocorrelation plots, and the Geweke equality of means test (Geweke, 1992).

[10]I collected legislative voting record for each of the country-sessions. While data for most countries, such as the U.S, includes only roll calls, a data for a few, such as Israel and Belgium, includes all available electronic voting. These differences might be important, especially in light of the potential for roll call bias (Gabel, Carrubba, Murrah, Clough, Montgomery and Schambach, 2006; Gabel, Carrubba and Hug, 2008).

[11]As I could not collect information at this point about the identity of the party leader(s) for each party in the data set, I chose to use the median as a proxy for a party's leader ideal point position. In future iterations of the project, I intend to collect more complete information about party leaders and to estimate the ideological distances of legislators from the ideal point position of their party leader.

$$|D_i| = |X_i - median(X_p)| \qquad (4.3)$$

where i denotes individual legislator, X_i denotes legislator's i ideal point, and X_p are the ideal points of all legislators belonging to party p.

In this dissertation, I use the distance of a legislator's estimated ideal point from the median position of his or her party as a measure of <u>behavior</u>. The literature, especially the theoretical literature on the spatial models of politics (Davis, Hinich and Ordeshook, 1970; Downs, 1957; Schofield and Sened, 2006; Tsebelis, 2002), identifies ideal points as measures of legislators' preferences and not behavior. Contrarily, as oppose to the *theoretical* literature, I argue as do other scholars that <u>estimated</u> ideal points from voting records do not capture true ideological preferences but that they reveal behavior. Instead of true preferences, observed voting records are the product of positive and negative agenda control (Clinton and Mierowitz, 2001; Cox and McCubbins, 1993, 2005), strategic considerations like log rolling (**????**) party influences (Cox and McCubbins, 1993; Rohde, Aldrich and Berger, 2002; Rohde, 1991), and electoral considerations (Carey, 2009; Hix, 2004).

Indeed, Gabel, Hix and Malecki (2008) used a survey of the Members of the European Parliament as a proxy for true "exogenous preferences" and examined its relationships with revealed behavior estimated using roll calls. They found a significant difference between ideal point extracted using NOMINATE and that based on the survey data. They attributed these differences to parties. Their statistical analysis further supports this conclusion and shows that the substantive effect of exogenous preferences is dramatically reduced when one includes European Party groups in the

model. Thus, <u>estimated</u> ideal points are <u>not</u> legislators' true preferences but depict their revealed behavior. In this chapter, I use the estimated ideal point to as a proxy for legislators' behavior.

Even if one does not agree with the distinction made between true preferences, (theoretical ideal points) and revealed behavior (estimated ideal point), one can still use the distance of a legislator's ideal point from the median position of his party to test the theory presented above. If one conceives of estimated ideal points as true preferences, the empirical analysis examines whether and how much the web of institutions influences cohesion or preference heterogeneity. On the other hand, if one maintains that estimated ideal points are revealed behavior, the empirical analysis examines the influence of institutions on discipline.

As I mentioned in Chapter 3, I do not distinguish between party cohesion, party discipline, and unity. Surely, party cohesion does not equal party discipline (Cox, 1987; Hazan, 2006b; Krehbiel, 1993; Ozbudum, 1970). Legislators might have heterogeneous true preferences but exhibit a united revealed voting record induced through party discipline. For the current analysis, however, it does not matter whether one examines discipline or cohesion. Thus, for example, restrictive selection processes might either enable party leaders through discipline to punish reluctant MPs or to award loyal legislators or the party leaders might a priori select a more homogenous group of legislators through cohesion. Similarly, permissive selection processes might cause district voters to punish (discipline) legislators if the legislators do not represent the voters' interests and instead vote the party line. These permissive selection processes can also enable the heterogeneity across the districts in terms of selectors'

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preferences, interests, and demographics of selected MPs, that is, to reduce cohesion.

Thus, although I believe the distance of a legislator's ideal point from the median position of his or her party is a valid proxy for legislator's behavior, I do not perceive this point to be consequential for the conclusions of the analysis. I find that when parties use restrictive selection processes, the parties are more unified and their ideal points are closer to one another. Whether this indicates cohesion or discipline does not matter in the current research.

I collected an original data-set with more than $6,750$ legislators nested within 181 parties who are nested in 30 country-sessions[12]. I also collected individual level predictors, for example, seniority or committee chairmanship as detailed below in addition to the outcome variable defined above and the party level and country level predictors, which are identical to the ones used in Chapter 3.

Thus, similar to the party-level model presented in Chapter 3, the main covariates of interest are those that capture candidate selection processes and electoral systems' incentives to cultivate a personal vote. While the former lies at the party level, the latter resides at the country-session level. I operationalized the electoral system variables *Ballot Type, Pool, Vote* and *District Magnitude*, similarly to the party-level model (see Section 4.7.3 in the Appendix for details).

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[12]As I needed voting data at the individual level, the availability of information was even more limited than for the party-level models presented in Chapter 3. Thus, for the individual-level model, I only have 15 different countries. Nevertheless, the variation in electoral systems prevailed as I have data for CLPR, OLPR, STV, Alternative Vote and SMD electoral systems. Similarly, I maintained the variation in selection processes. In the future, I would hope to increase this sample size. The results from the analysis should bear in mind this limitation.

Thus, *Ballot Type*, a three-category variable, measures how much voters control the ballot at the general election stage. It distinguishes between fixed ballots and those amenable to voter change. I use the same three-category classification from the party-level model. Thus, 0 represents fixed ballots like CLPR, 1 represents weakly preferential electoral systems where the predetermined order of the ballot is important but voters can express a preferential vote, and 2 represents strong preferential electoral systems where voters must provide their preferences. I define *Vote* and *Pool* similarly their definitions in Chapter 3. measures whether votes can be pooled across legislators from the same party, where 0 represents electoral systems in which votes are pooled across the whole party, 1 denotes pooling at the sub-party level, and 2 denotes systems where votes do not pool. I also define *Vote* similarly to how I defined it in the party-level models. Its values include 0 when a voter can cast a single vote for a party, 1 when voters cast multiple votes for candidates who might not have to belong to the same party, and 2 when voters have a single vote for a single candidate. Lastly, I continue to measure *District Magnitude*, M, as a weighted average of all district magnitude in a country and determining the weights by the number of legislators running in each district.

Similar to its earlier definition and operationalization, *Ballot Access* indicates how legislators gain permission to use the party's ballot. I use the index presented in Figure 2.1 in Chapter 2, that classifies selection processes according to their hypothesized influence on legislators' behavior from those that encourage the most party-centered behavior to those that encourage legislators to differentiate themselves from their co-partisans and cultivate a personal vote.

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I also defined the other country-level and party-level control variables similarly to their definition in Chapter 3 (see Section 4.7.3 in the Appendix for details). In other words, I include at the party level a variable to indicate party size and a variable to indicate whether the party belongs to the coalition or opposition. At the country level, I include a dummy variable for *Regime Type* that distinguishes between presidential and parliamentary systems and a dummy variable that indicates whether the country is a federal or a unitary system.

In addition to the party-level and country-level predictors, I also control at the individual level for a members' *Seniority*, measured as the number of sessions served prior to the session examined[13]; I also include a measure of the legislator's *Gender* and a control variable that indicates whether they were a committee *Chair* during the session examined. I control for whether the legislator was a *Minister* or *Deputy Minister* during the session examined. I expect these variables all shape legislators' behaviors. Thus, junior parliament members less known by the general public might need to emphasize their personal reputations: "junior MPs are more likely than senior MPs to register personal vote gains" (Norton and Wood, 1993, 127). On a similar note, Fenno (1978) as well as (Cain, Ferejohn and Fiorina, 1984) argued that junior legislators receive more personal vote. Tavits (2009) argues that senior parliament members will be less likely to break the party's line. I hypothesize that new members will emphasize their personal reputations to a greater extent than senior members when all else is equal (Shomer, 2009)[14]. Scholars predict that committee chairs, min-

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[13]No difference exists in my measure of seniority between a legislator who served four consecutive terms prior to the one examined and a legislator who served two sessions, left the legislature for three terms, and then served two additional sessions.

[14]In addition, seniority can function as a proxy for party leadership. I was, unfortunately, unable to collect a comparatively systematic measure for party leadership positions such as whip. However,

isters, and deputy ministers behave in a party-centered manner compared to their counterpart when all else is equal (Foster, 2004; Rosas and Shomer, 2008). Kam (2009) demonstrated how the advancement of legislators is an important predictor of legislators' behavior and specifically their tendency to dissent[15]. The literature on the effect of gender on legislators' behavior is inconclusive (Childs, 2002; Tamerius, 2010; Thomas and Welch, 1991) and I included this variable to test whether male legislators behave in a more party-centered manner.

The final data-set for the individual-level model contains $6,776$ legislators nested within 181 parties that are, in turn, nested in 30 country-sessions. (See Table 4.5 in the Appendix for descriptive statistics). Because the response variable, *Ideological Distance*, is always positive, and, as Figure 4.5 in the Appendix shows, it has a right-skewed distribution, I have chosen to log *Ideological Distance*. As a means of further inspecting the data, one can review Figure 4.6 in the Appendix, which presents the distances of legislators from the median position of their parties as a function of min-istership in nine selected country-sessions.

Equation 4.4 presents the three-level varying-intercept varying-slope individual-level model. The WinBugs code is available in Subsection 4.7.2 in the Appendix. In this model, the unit of analysis is the individual legislator who is nested within his or

it is hypothesized that parliamentary party leaders will behave in a party-centered manner. When one assumes that parliamentary party leaders are usually senior members, the seniority variable can function as a proxy. One should observe senior members behave in a more party-centered manner compared to junior legislators.

[15]In the future, I will collect data on additional individual-level characteristics such as an MP's local political experience before becoming an MP to examine whether local ties affect legislators' behavior (Shugart, Valdini and Suominen, 2005; Tavits, 2009, 2010), and electoral safety indicators (Cain, Ferejohn and Fiorina, 1987).

her party, which in turn is nested within a country-session[16]. The response variable is operationalized as *Ideological Distance.* After running a separate IRT model for each country session, I used the response variable in a second-stage analysis to make a three-level varying-intercept varying-slope model[17]. As with the models presented in Chapter 3, I do not estimate the possible correlation between the varying intercepts and the varying slope (Gelman and Hill, 2007; Hox, 2002). I assigned to each of the P $\alpha_{p[i]}$s, C $\gamma_{0_c}^{\alpha}$s and C $\gamma_{selec_c}^{\alpha}$s a different prior distribution, which is modeled according to the specification in Equation 4.4. These prior distributions include unknown hyper-parameters, such as, $\delta_1^{\gamma 0}$, which I estimated from the data and assign a diffuse noninformative prior. Thus, I do not assign a model for the hyper-parameters in the party- and country-level models such as, $\delta_1^{\gamma 0}$, $\delta_4^{\gamma 0}$, or $\delta_1^{\gamma 1}$, and the non varying data and party level predictors such as, $\beta_{seniority}$, β_{gender}, γ_{size}^{α}, and σ_y. Rather, I assign a diffusive normal prior with mean 0 and precision 0.001, a standard deviation of 31.6, to these parameters.

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[16]On the party-level model, I used the country as the grouping variable, but in the individual-level model, I use a country-session grouping variable.

[17]This second-stage estimation will not, then, incorporate uncertainty about legislators' ideal points.

$$Distance_i \quad \sim \quad \mathcal{N}\left(\hat{y}_i, \sigma_y^2\right) \tag{4.4}$$

$$\hat{y}_i \quad = \quad \alpha_{p[i]} + \beta_{seniority} * Seniority_i + \beta_{minister} * Minister_i$$

$$+ \quad \beta_{deputy} * Deputy_i + \beta_{chair} * Chair_i + \beta_{gender} * Gender_i$$

$$\alpha_p \quad \sim \quad \mathcal{N}\left(\hat{\alpha}_p, \sigma_\alpha^2\right)$$

$$\hat{\alpha}_p \quad = \quad \gamma_{0_{c_p}}^\alpha + \gamma_{selec_{c_p}}^\alpha * Selection_p + \gamma_{opp}^\alpha * Opp_p + \gamma_{size}^\alpha * Size_p$$

$$\begin{pmatrix} \gamma_{0_c}^\alpha \\ \gamma_{selec_c}^\alpha \end{pmatrix} \quad \sim \quad \mathcal{N}\left(\begin{pmatrix} \hat{\gamma}_{0_c}^\alpha \\ \hat{\gamma}_{selec_c}^\alpha \end{pmatrix}, \begin{pmatrix} \sigma_{\gamma_{0_c}^\alpha}^2 & \rho_1 \sigma_{\gamma_{0_c}^\alpha} \sigma_{\gamma_{selec_c}^\alpha} \\ \rho_1 \sigma_{\gamma_{0_c}^\alpha} \sigma_{\gamma_{selec_c}^\alpha} & \sigma_{\gamma_{selec_c}^\alpha}^2 \end{pmatrix} \right)$$

$$\hat{\gamma}_{0_c}^\alpha \quad = \quad \delta_0^{\gamma_0} + \delta_1^{\gamma_0} * Ballot_c + \delta_2^{\gamma_0} * Pool_c + \delta_3^{\gamma_0} * Vote_c + \delta_4^{\gamma_0} * DistM_c$$

$$+ \quad \delta_5^{\gamma_0} * Regime_c + \delta_6^{\gamma_0} * Unitary_c$$

$$\hat{\gamma}_{selec_c}^\alpha \quad = \quad \delta_0^{\gamma_1} + \delta_1^{\gamma_1} * Ballot_c$$

where i indicates legislators,

where p indicates parties,

and c indicates the hierarchical level of a country [18].

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[18]In this paper, I do not model the correlation between the random effects, as each of them is drawn from a separate normal distribution as one can see in the code in Subsection 4.7.2 in the Appendix.

4.4 Results

Figure 4.1 presents the legislators' ideological distances against how they are selected and the *Ballot Type* under which they were elected[19]. We can see that the slope of the overlayed regression plane, with regards to *Ballot Type* (west to east) is positive. This indicates that legislators elected under strong preferential electoral systems exhibit larger distance form the median position of their parties. This, in tern, indicates that these legislators are less disciplined compared to legislators elected under fixed ballots. This supports my hypothesis concerning the direct effect of electoral systems on legislators' behavior (Hypothesis 1). Yet, The slope of this regression plane seems steeper when selection procedures are democratized and permissive, coded 8, than when they are restrictive, coded 1. This supports my conditional combined effect hypothesis (Hypothesis 3).

The slope of the regression plane regarding selection procedures is also positive, indicating that legislators selected under permissive selection processes have larger ideological distance and are less cohesive compared to legislators selected via restrictive manners. Moreover, this positive slope is slightly steeper under strong preferential compared to fixed ballot electoral systems.

As with the party-level models, one should use ANOVA to parse the variance in the outcome variable at the different levels. Through ANOVA, one can observe whether there is variation in all three levels. Table 4.1 offers the results from a classical ANOVA. It reveals a significant variation both between country-sessions, between

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[19]The figure is a little deceiving, as with such a large data set, one cannot really observe all data points as they overlap.

Figure 4.1: *Ballot Access, Ballot Type*, and Ideological Distance
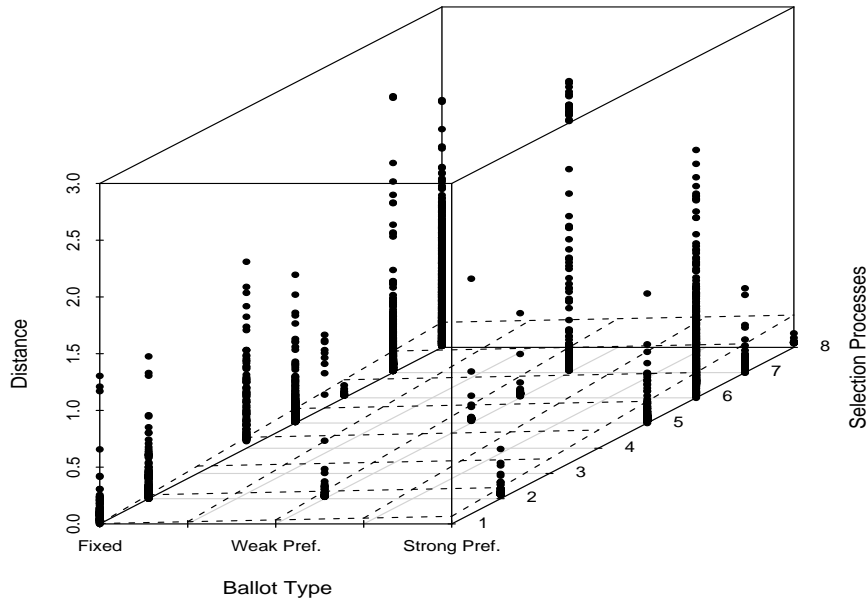
parties, and between individual legislators evident by the significantly larger than 1 F-statistics.

Figure 4.2 presents the median and the 95% credible intervals of the estimated variance components from a hierarchical ANOVA[20]. From the figure, one can see country effects are large, with a coefficient estimated to be 0.84, and that party effects are also significant, with a point estimate of 0.24. Because all variance components' credible intervals do not overlap zero, I am confident that a significant variation exists at all three levels of the analysis. Moreover, One can get some information about the importance of the individual level by taking the ratio between its variance components

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[20]Both ANOVA figures were calculated for a non-logged distance variable.

and the total variances (Bryk and Raudenbush, 1992). This ratio, 0.39, indicates that the individual level explains only 39% of the variance in legislators' distance from the median position of their parties. The other 61% is explained by the upper levels. Specifically, the country level accounts for 48% of the variation, and the party level is responsible for 13.6%. The results of the ANOVA support the argument that a significant variation lies in legislators' distances from the median of their parties at all three levels of analysis.

Table 4.1: Classical ANOVA for the Individual-Level Model

Factor	DF	SUM SQ	Mean SQ	F-statistic	Pr(>F)
Country-Session	29	182.83	6.30	129.17	<2.2e-16*
Party	151	26.47	0.18	3.6	<2.2e-16*
Residuals	6595	321.89	0.05		

In light of the results from the ANOVA and, more importantly, in light of my theoretical arguments, I estimated the three-level hierarchical model presented in Equation 4.4 where legislators were nested in parties that were, in turn, nested within countries. I estimated a varying-intercept relationship between legislators and parties and did not estimate a random slope for the individual-level predictors. To capture the conditional combined effect of elections and selections, I allowed the coefficient of selection to vary by country-session in addition to the varying intercepts for each country that I estimated.

Thus, I estimated 181 intercepts at the party level, 30 intercepts at the country-session level, and 30 slopes at the country-session level for the selection variable. Figure 4.7 in the Appendix plots the estimated intercepts at the country-session level,

Figure 4.2: Hierarchical ANOVA for the Individual-Level Model
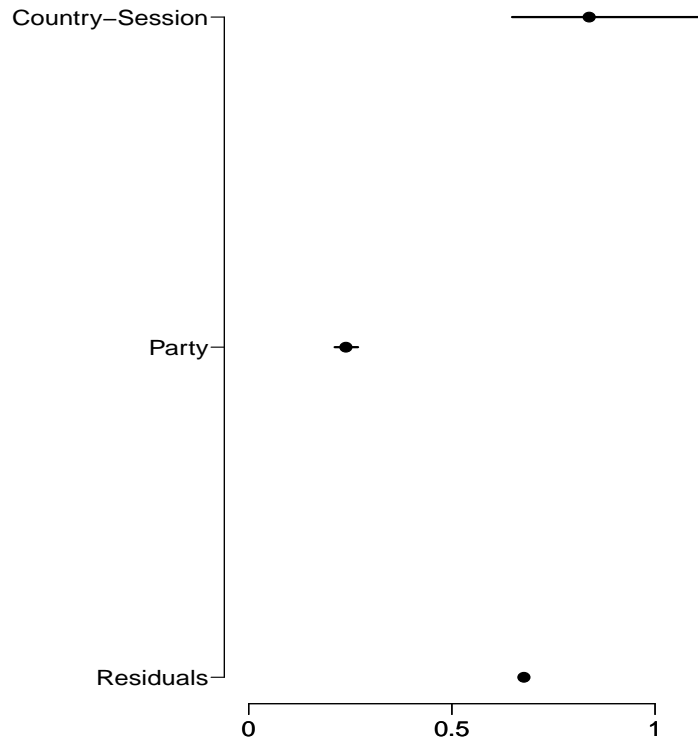
and the estimated intercepts at the party level. Table 4.2 presents the results. I must emphasize that the response variable is the distance of a legislator from the median of his or her party. The larger the ideological distance appears, the less disciplined a legislator is[21].

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[21]As Footnote 11 explains, this measure is a crude proxy. However, even in cases where the position of the party leader is far from the ideological position of the median of the party and hence might render this proxy problematic, distances around the median are still a fine measure at the party level. Because I use a multi-level analysis, the party-level characteristics should still capture whether a party's spread of ideal points around its median is large, as in a non-cohesive party, or small, as in a cohesive party. Footnote 11 also detailed that, in future iterations of the project, I will attempt to collect systematic information about the identity of legislative party leaders to use a more accurate measure of the distance of a legislator from the ideal point of the party's leader.

Therefore, Regarding the theoretical expectations concerning the effect of *Regime Type* on legislators' behavior, one would expect to observe a negative coefficient indicating that legislators under parliamentary systems, were coded as 1, exhibit lower values of distance as they were more disciplined compared to their counterparts under presidential systems. Thus, a positive coefficient means that an increase on the *X* variable increases distance and reduces discipline while a negative coefficient indicates greater discipline[22].

Because, as in the party-level models presented in Chapter 3, the main variables of interest,*Ballot Type* and *Ballot Access* interact with one another, it is easier to interpret them using graphical representation. Nevertheless, an inspection of Table 4.2 reveals some interesting findings. At the individual level, it seems my hypothesis concerning the influence of seniority on legislators' behavior is refuted. In fact, one sees an opposite relationship where senior representatives, all else being equal, have greater distance from the median of their parties and are less disciplined. While ministers seem to be less disciplined, deputy ministers seem to adhere greatly to the collective unified record of their parties.

It is interesting to examine the results concerning the effect of *Gender* on discipline. The literature about these relationships is mixed. Some scholars argue that female representatives exhibit lower levels of discipline, as they should vote against

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[22]Therefore, figures of expected distances should be opposite to the theoretical expectations presented in Figure 3.1(a). In other words, while the gap in behavior between selection in the most permissive and the most restrictive selection processes should still be larger when electoral systems are permissive than when they are restrictive. The slope of the lines should be positive to indicate that as one moves towards more permissive electoral systems, legislators' discipline levels decrease. This means their *Ideological Distance* from the median position of their party increases. By the same token, one should anticipate selection in restrictive processes to be associated with less *Ideological Distance*.

the male dominated party line to advance substantive female issues (Thomas and Welch, 1991), others find no such relationships (Childs, 2002; Tamerius, 2010)[23]. The current analysis presented in Table 4.2 representatives' gender seems not to extract a significant effect on their behavior when other factors are equal[24].

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[23]I thank Diana O'Brian for her help on this matter.

[24]Some scholars argue that gender effect on legislative behavior depends upon how important parties and party discipline are (Celis, 2008). This argument might explain the *Gender* null results obtained in Table 4.2. Future research will interact *Gender* with *Ballot Type* to test the conditionality assertion.

Table 4.2: Individual-Level Models: Three-Level Varying-Intercept Varying-Slope

	Parameter	Median	80% C.I.	
Fixed Effects				
	Intercept	-1.66	-2.322 :	-1.016
	Selection	0.018	0.007 :	0.0414
	Coalition	-0.010	-0.077 :	0.0582
	Size	0.0015	0.0009 :	0.0021
	Pool	-0.106	-0.455 :	0.193
	Vote	0.173	-0.380 :	0.774
	District Magnitude	0.005	-0.002 :	0.012
	Regime	-1.517	-2.031 :	-1.051
	Unitary	-0.261	-0.648 :	0.080
	Ballot	0.036	-0.150 :	0.219
	Selection*Ballot	0.015	0.008 :	0.045
	Seniority	0.0234	0.019 :	0.028
	Minister	0.150	0.104 :	0.193
	Deputy Ministers	-0.077	-0.124 :	-0.030
	Committee Chair	0.018	-0.020 :	0.06
	Gender	0.006	-0.024 :	0.035
Variance Components				
Country Level				
	Intercept	0.582	0.486 :	0.738
	Selection	0.017	0.003 :	0.040
Party Level				
	Intercept	0.215	0.188 :	0.244
	Residual	0.674	0.667 :	0.682

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At the party level, the fixed-effect coefficient of the opposition-coalition variable is negative, indicating that legislators from coalition parties exhibit less distance from the median of their parties and are more disciplined. However, this coefficient does not significantly differ from zero as indicated by the 80% credible interval[25]. These results contradict the ones shown by the Rice party-level model in Table 3.2, but they support the results from the Weighted Rice party-level model in Table 3.5. Recall that I argued that the differing results from the party-level models might reveal an interesting story concerning coalition discipline. When one uses a party-level measure of behavior that disregards unanimous votes and weighs the votes by their closeness, coalition parties seem more cohesive than their counterparts in the opposition. Under these conditions, maintaining cohesion becomes more important. The fact that the coalition party leaders are provided with jobs through which they can induce discipline becomes consequential.

On the other hand, when I used the Rice scores to measure behavior, disregarding the closeness of the vote and including all votes, even unanimous ones, the discipline of coalition parties became less meaningful. When a vote is unanimous or when it is predicted to have a large margin of victory, coalition party leaders need not spend their efforts to discipline reluctant legislators to the same degree as when the votes are close. I argued in Chapter 3 that this rationale might provide an explanation for the contradictory results in Table 3.2 and table 3.5. Interestingly enough, one can interpret the individual level results from Table 4.2, to lie in between these two extremes. Although the coefficient does not significantly differ from 0, the median

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[25]As the number of countries in the data set reduces from 24 to 15, the uncertainty bound around party-level and especially country-level coefficients grows. In the future, I will try to increase the scope if my data to overcome this problem.

of the posterior distribution indicates that legislators whose parties belonged to the coalition exhibited smaller ideological distance from the median position of their parties and hence were more disciplined. Recall that the IRT models discard perfectly unanimous votes, as did the Weighted Rice scores, but the models did not weigh the votes by their closeness similarly to Rice scores. It is not surprising, then, to find these inconclusive results concerning the effect of coalition on legislators' behavior.

The size of the party seems to influence the degree to which legislators will cultivate a personal vote and exhibit undisciplined behavior. Legislators who are members in larger parties exhibit less discipline, as the positive coefficient indicates: their distance from the median position of their parties is larger. These results support the assertion that larger parties encounter more difficulties solving the inherent collective action problems of maintaining a unified cohesive brand name. Although this collective action problem is more acute in personal vote seeking incentive systems, it appears also in party centered countries. Specifically, each individual legislator would prefer that his or her co-partisans will vote together, maintaining the cohesive unified public party record, while he or she could vote according to constituency's preference or own true preferences even if it means crossing the party line (Cox and McCubbins, 1993; Docherty, 1997; Kam, 2009). The results displayed in Table 4.2 support the Olson (1971) notion that larger group size would hamper the party's ability to overcome the collective action problems.

Similar to the results obtained in Chapter 3, not only does *Regime Type* exhibit a significant effect on legislators' behavior in the hypothesized direction (see: Figures 4.9(a) and 4.9(b) in the Appendix), but this relationship seems more complicated. The differences in expected distances across regime types are larger under

electoral systems with strong preferential *Ballot Type* than under fixed ballot systems. For example, the difference in expected ideological distances between parliamentary and presidential systems of parties selecting in a permissive manner is smaller for CLPR, 0.16, than it is for strong preferential systems, 0.21. Moreover, it seems that the differences in expected ideological distances across regime types also vary with how parties select their candidates if one holds electoral systems constant. For example, under electoral systems with strong preferential *Ballot Type*, the difference between parliamentary and presidential systems with respect to expected distances is smaller when parties use restrictive centralized selection processes, 0.15, than when parties use democratized-permissive selection procedures, 0.21. As I mentioned earlier, future research will directly model the possibility that the conditional effect of electoral systems and candidate selection processes on behavior varies by *Regime Type*.

As with the party-level models presented in Chapter 3, I prefer to present the results concerning the effect of electoral systems and intra-party candidate selection processes on legislators' behavior using graphs that display the ideological distances of legislators from the median position of their parties. Figure 4.3(a) depicts parliamentary systems, and Figure 4.3(b) shows the expected distances in presidential systems. In both systems, I calculated the expected distances for a male legislator who did not serve as a minister, deputy minister, or as a committee chair and who served as a parliament member one term before to the one examined. These choices represent the median values of these variables. Further, I computed the expected distances for a unitary system with mean district magnitude, 34.2, for an opposition party, the median of the coalition variable, and with a size of 44, the mean of the party size. The main predictors of interest, the selection processes and *Ballot Type* and its corresponding *Pool* and *Vote* varied across their values. I exponentiated the

expected values to revert them back to their original scale[26].

In both panel 4.3(a) and panel 4.3(b) the x-axis portrays the variation along the *Ballot Type*, ranging from fixed ballot systems to strong preferential systems where voters must change the ballot. The y-axis in both panels depicts the expected ideological distance of a legislator from the median position of the party. Each panel presents expected values for the selection procedures used according to the classification presented in Figure 2.1. Thus, the black, solid, thin line represents expected values for parties that use restrictive selection processes where a small group of national party leaders selects candidates and the gray dotted line represents expected distances calculated where parties use primaries.

(a) Parliamentary Systems   (b) Presidential Systems
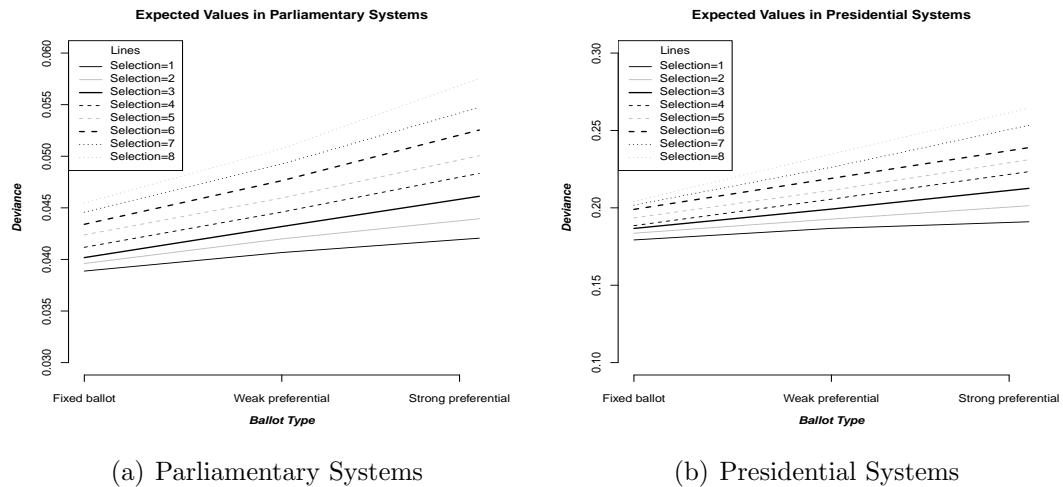
Figure 4.3: Expected Ideological Distances in Parliamentary and Presidential Systems.

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[26]Figure 4.8(a) and Figure 4.8(b) in the Appendix present the expected ideological distance from a model that uses Bille's proposed index of selection procedures (Bille, 2001). The results presented are similar to the ones obtained using my proposed selection index. Hence they provide an additional robustness to them.

Recall that the larger the distance of a legislator from the median of the party, the less disciplined he or she is. One should then anticipate positive slopes for the influence of electoral systems on legislators' behavior. As one moves right on the x-axis toward a more permissive electoral systems that encourages personal vote-seeking behavior, I hypothesized that one would witness lower levels of legislative discipline and greater distances between a legislator and the median of the party than what one should observe in fixed ballot systems.

Regarding this distinct effect of electoral systems on legislators' behavior, the positive slope of the lines on the graph supports the theoretical argument in both presidential and parliamentary systems. As one moves toward permissive electoral systems, from left to right on the graph, the levels of distances increase when all else remains constant. This proves true for each of the selection procedures examined. Though the expected values reveal that electoral systems bear an effect on the hypothesized direction, one must wonder whether the differences in *Ballot Type* significantly differ from zero. Table 4.3 presents calculations of first differences while letting *Ballot Type* vary from its most restrictive value, 0 to its most permissive value, 2.

These first differences reveal that, like in the Rice score model, differences in legislators' behavior across *Ballot Type* under both permissive and restrictive selection procedures do not significantly differ from 0 at the 80% level for both parliamentary and presidential systems. The median of the posterior distribution of these differences corroborates the theory as its negative coefficient indicates that legislators under electoral systems thought to enhance party reputation exhibit lower ideological distances and therefore higher discipline compared to legislators in strong preferential electoral

systems when all else is equal. However, there is simply too much uncertainty around this point prediction to be certain of these results. As I argued before, collecting more data for additional countries might alleviate this issue.

Table 4.3: First Difference in Expected Legislators' Distance where *Ballot Type* Varies

Scenario	10%	50%	90%
First difference ballot varies for parties selecting in restrictive selections under parliamentary systems	-0.0528	-0.0030	0.0402
First difference ballot varies for parties selecting in restrictive selections under presidential systems	-0.307	-0.014	0.157
First difference ballot varies for parties selecting in permissive selections under parliamentary systems	-0.080	-0.013	0.041
First difference ballot varies for parties selecting in permissive selections under presidential systems	-0.475	-0.052	0.152

The hypothesized distinct effect of intra-party candidate selection processes on legislators' behavior gains support from the individual-level model. More permissive selection processes, the higher its value, leads to a larger expected distance of the legislator from the median position of the party when all other variables are constant. This is true regardless of the electoral system one examines. However, I would once again like to examine whether differences in selection procedures significantly differ from 0. To this end, I calculated the first differences in expected distances and let selection procedures vary from its most restrictive value, 1, to its most permissive value, 8. Figures 4.4(a) and 4.4(a) presents the posterior distribution of the first

differences under fixed ballot systems using the solid black line and strong preferential electoral systems using the dotted line in both parliamentary and presidential systems. As with the differences in electoral systems, analysis of first differences of the influence of selection procedures cannot rule out the conclusion that legislators' behavior across selection processes do not differ as the 80% credible interval of the first difference posterior distribution overlaps 0. Nonetheless, the point predictions of the differences adhere to the theory for strong preferential and for fixed ballot systems under both types of regimes. Specifically, one observes a negative first difference between selection in the most restrictive procedures, hypothesized to reduce the distance of a legislator from the median of his or her party, and selection in the most permissive selection mechanisms. Similarly, the probability in a parliamentary system that a legislator selected under restrictive selection processes will exhibit higher degrees of discipline compared to legislators selected under permissive selection processes when the electoral system encourages personal vote seeking behavior is 0.88. This probability under fixed ballot electoral systems is 0.82.

The individual-level model and the party-level models support the hypothesized conditional concurrent combined effect of selection processes and electoral systems on legislators' behavior. I hypothesized the effect of selection procedures on legislators' behavior should depend upon the *Ballot Type* a country uses. Because selection procedures and electoral systems are substitutive tools to achieve party discipline, the effects of selection procedures under electoral systems that encourage party-centered behavior should be smaller than their effects under permissive electoral systems. Under permissive electoral systems that encourage personal vote-seeking incentives and do not provide party leaders tools to enforce discipline, the influence of selection processes on legislators' behavior should increase. Similarly, the influence of electoral

(a) Parliamentary Systems (b) Presidential Systems
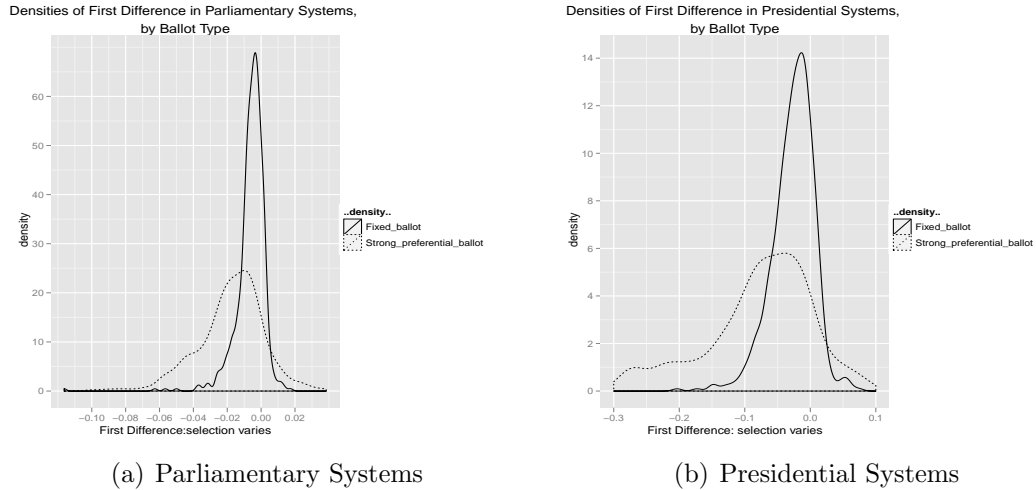
Figure 4.4: First Differences in Expected Ideological Distance when Selection Varies in Parliamentary and Presidential Systems.

system on legislators' behavior should be greater when permissive selection procedures encourage legislators to distinguish themselves from their co-partisans and to cultivate their personal reputations and should be minimal under restrictive selection processes.

This assertion gains support in both parliamentary and presidential systems. In Figure 4.3(a) and Figure 4.3(b) The gap in behavior between the most restrictive selection procedure where selection=8, and the most permissive process widens under electoral systems that encourage personal vote-seeking incentives and narrows under electoral systems that encourage party-centered behavior. Substantively, from calculation of first differences, where I allowed selection to vary from the most restrictive to the most permissive mechanism across the values of *Ballot Type*, it seems that in presidential systems, under a CLPR system, the expected distance of a legislator selected under restrictive selection processes is lower by 0.022 points than the expected distance of a legislator selected under permissive selection processes. This difference

increases to 0.07 in presidential systems with strong preferential electoral systems where a legislator selected via restrictive processes will have a smaller expected distance from the party's median position than counterparts selected via permissive mechanisms. The results for parliamentary systems are similar. For a fixed ballot electoral system, the difference in behavior between legislators selected via restrictive processes and those selected via permissive processes is smaller than the same difference under strong preferential system, 0.005 and 0.016, respectively.

Moreover, these differences in the gaps seem substantial as, in presidential systems, the probability that the gap between legislators selected in the most restrictive and the most permissive selection procedures under permissive electoral systems is larger than under restrictive electoral systems is 0.81. In a parliamentary system, the difference in expected distances between legislators elected under fixed ballot and those elected under strong preferential systems, when their selection process is restrictive, is smaller (0.003) than this difference is when the selection process encourage personal vote seeking behavior (0.013). A similar situation exists in presidential systems where the difference in the gap in expected ideological distance is larger when selection is permissive than when selection is restrictive, 0.052 and 0.014. Thus, the individual-level model supports the theory concerning the conditional combined effect of selection processes and electoral systems, although one must remain cautious in light of some uncertainty issues.

4.5 A Three Countries Example

Section 4.4 presented the results of the three-level varying-intercept varying-slope hierarchical models, where the unit of analysis is the individual legislator nested within his or her party which in turn is nested in a country-session. The model supports my theory concerning the conditional concurrent combined effect of electoral systems and intra-party candidate selection processes on legislators' behavior. Despite some uncertainty issues, it seems that the effect of selection processes on parliament members' tendency to emphasize their own personal behaviors and to deviate from their party's line at the expense of unified party reputation depends upon the electoral context within which these legislators operate. When *Ballot Type* requires voters to change the list, strong preferential systems, the effect of candidate selection on legislators' behavior increases compared to electoral systems where voters cannot disturb the predetermined ballot. Similarly, when the candidate selection procedures encourage a high degree of intra-party competition in permissive systems, the effect of electoral system on legislators' behavior gains importance compared to situations with restrictive selection processes.

This theory about the concurrent combined conditional effect of electoral systems and candidate selection processes develops from the argument that either restrictive *Ballot Access* procedures or restrictive *Ballot type* provide party leaders with the ability and rationale for maintaining a high degree of discipline (see Section 3.3 in Chapter 3 for a full description and explanation of the argument). Because either restrictive *Ballot Type* or restrictive *Ballot Access* induces discipline, elections and selections are alternatives to one another in their ability to induce cohesive disciplined

parties.

Since elections and selections are substitutive tools in their ability to produce a unified disciplined behavior, I argued that restrictive electoral systems that create incentives for legislators to behave in a party-centered manner make the effect of candidate selection procedures almost redundant. This is because the country-level electoral system already establishes and assures that legislators will toe the party line and sustain a high degree of discipline. Under such circumstances, even if parties select legislators via permissive selection procedures such as primaries, legislators still face incentives to behave in a party-centered manner as an effect of the electoral system.

Hence, the effect of selection processes on behavior is minimal as the *Ballot Type* discipline regardless of the candidate selection processes incentives. Conversely, when the permissive electoral systems encourage legislators to break the party's line, the influence of intra-party candidate selection processes might matter. Under these circumstances, if restrictive selection processes provide party leaders the means to induce and enforce discipline, the processes will mitigate the individualistic effect of the electoral system. If the *Ballot Type* does not provide party leaders with means to assure high party discipline but the intra-party candidate selection process does, one should observe legislators who seek to maximize their probability of getting re-selected to adhere to party leaders and to behave in a party-centered manner. Failing to do so might run the risk of not being re-nominated.

My theory implies that one will find greater variation in legislator behavior under permissive electoral systems when parties select candidates using differing mecha-

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nisms than one sees in restrictive electoral systems. Similarly, one should find greater variation in legislator behavior in parties elected across differing electoral systems but that select with a similar permissive selection procedures compared to legislators from parties selected via centralized restrictive procedures but in divergent electoral systems.

Thus, legislators' perceptions of their roles and their revealed behavior should differ substantively if they are selected via different selection processes in a country that uses permissive electoral system like the Swiss OLPR electoral system or the Irish Single Transferable Vote electoral system. On the other hand, the results indicate that the difference in behavior across legislators selected via differing selection processes should lessen when the country uses a restrictive electoral system like the Israeli CLPR. Under these circumstances, despite variation in candidate selection procedures, legislators should demonstrate more or less homogenous behavior.

Table 4.4 compares the distances of legislators' votes from their parties' median position in the following countries and systems: Israel, with its CLPR and fixed ballot; Ireland, with its STV and strong preferential system; and Switzerland, with its OLPR and strong preferential system. Within each country, I examine legislators' distances from the median position of their parties using a legislator from a party that selected through a relatively permissive, decentralized manner and from a party that used a more restrictive, centralized mechanism. The data in this table largely supports the conclusions reached from the hierarchical level analysis presented in Section 4.4.

Table 4.4: Individual Level Results: An Illustration

	Permissive Selection			Restrictive Selection			Overall	
	Distance	Average	S.D.	Distance	Average	S.D.	Average	S.D.
Israel 96-99 (CLPR)	Ophir Pines-Paz' Distance	Labour's	Labour's	Shlomo Banizri's Distance	Shas'	Shas'	Knesset's	Knesset's
	0.103	0.12	0.034	0.110	0.11	0.048	0.113	0.05
Switzerland 99-03 (OLPR)	Arthur Loepfe's Distance	CVP's	CVP's	Jacquelin Fehr's Distance	SPS's	SPS's	National Council's	National Council's
	1.06	0.34	0.27	0.035	0.09	0.06	0.19	0.23
Ireland 92-97 (STV)	Eric Byrne's Distance	Democratic Left's	Democratic Left's	Tommy Broughan's Distance	Labour Party'	Labour Party'	Dail's	Dail's
	0.13	0.11	0.12	0.02	0.05	0.08	0.06	0.06
Belgium 95-99 (WPREF)	Dallons Philippe TLON's Distance	Francophone Socialist's	Francophone Socialist's	Van Dienderen Hugo's Distance	Agalev's	Agalev's	Kamer's	Kamer's
	0.75	0.09	0.16	0.018	0.018	0.002	0.17	0.14
Overall	S.D.	S.D. across all parties		S.D	S.D. across all parties		S.D. across all parties	
	0.47	0.22		0.04			0.08	

To start, one should consider the empirical implication that, under permissive electoral systems, one should observe greater variation in behavior across legislators and parties selected via divergent selection processes compared to the variation one should observe when electoral systems are restrictive. The legislative-session level, the last column of Table 4.4 shows the standard deviation of the distribution of parliament members' distances from the median positions of their parties is the smallest in Israel with its CLPR systems and is largest in Switzerland with its OLPR system. Thus, overall less variation exists under the restrictive Israeli electoral system than under the permissive Swiss system.

Moreover, one observes that the effect of selection procedures on legislators' behavior seems redundant and minute under restrictive electoral systems, but their effect is substantial under permissive electoral systems. To see this, one compares the behavior of a legislator/party in Israel selected via decentralized permissive selection procedures to a legislator/party in Israel selected via restrictive selection processes. According to Hypothesis 2 concerning the separate effect of selections on legislators' behavior, one should see that Ophir Pines-Paz, selected in primaries as the representative of the Jerusalem district, should have shown greater distance from the median position of the Labour's party to indicate less discipline, while Shlomo Benizri, selected via a very restrictive selection process where a small group of Rabbis determine the list, should exhibit a smaller distance to indicate more party-centered, disciplined behavior. Yet, according to the concurrent conditional combined effect hypothesis, one should not observe much variation in how Ophir Pines-Paz and Shlomo Benizri behave in light of Israel's fixed ballot electoral systems. Indeed, despite the divergent manners by which parties selected these two Knesset Members, their distances from the median position of their respective parties are similar, 0.103 and 0.11 (re-

spectively). Moreover, Ophir Pines-Paz's distance from the median position of the Labour party does not differ from the distance of the rest of the Knesset Members from their respective parties. The average distance of a Knesset member from the median position of their respective parties is 0.113, and Pines-Paz's distance is 0.103.

Thus, one can see that Ophir Piness-Paz did not behave significantly different from other Knesset Members. Despite Ophir Pines-Paz's claim cited at the beginning of this chapter that he would be willing to break the party's line to represent the Jerusalem residents who selected him, his behavior did not differ much from that of Shlomo Benizri who was selected in a very restrictive manner.

One can also see that the effect of selection procedures do not vary much across Pines-Paz's and Benizri's parties, Labour and Shas. Without my theory, one would anticipate Shas to exhibit a higher level of cohesion compared to Labour who selected its candidates for the $96-99$ session through primaries. The average distance of Shas' legislators from the median position of the party is 0.11, but this average for Labour is similar and stands at 0.12. It seems that under Israeli's restrictive CLPR system, candidate selection mechanisms for Knesset Members do not influence their behavior much.

Under a permissive electoral system and a Ballot Type that requires voters to change the ballot, though, legislator selection had a substantial effect on behavior. Under Ireland's permissive electoral system, the Democratic Left party selected Eric Byrne using primaries with a veto prerogative of the national party leadership. Byrne exhibited a much larger distance from the median of his party compared to Tommy Broughan, a legislator selected via a delegation convention subject to the approval

of the national party (Galligan, 1999), 0.13 and 0.02, respectively. Similarly, the Democratic Party's average distance to the median was more than double the average distance of the Labour party that selected in a more restrictive manner, 0.11 and 0.05. Comparing Byrne's distance from the median of the Democratic Left to the average distance of the Dáil, the Irish legislature, reveals that Byrne is much less disciplined compared to the average legislator. While the average distance of all Dail members was 0.06, Byrne exhibited much greater distance, 0.13. Unlike in Israel, Ireland's permissive electoral systems and strong preferential *Ballot Type* increases the influence of candidate selection on legislator behavior.

Further supporting my theory, one can examine the Swiss National Council. In the Swiss OLPR electoral system with its strong preferential *Ballot Type*, selection processes affect legislator behavior substantially. If party leaders control the selection processes, they have means to discipline their rank and file members. On the other hand, if a party uses permissive selection processes, this combines with the effect of the permissive electoral system to give legislators strong incentives to emphasize their own personal reputations at the expense of their parties' unified brand and to dissent.

Indeed, one can see that Arthur Loepfe , who was selected via relatively permissive selection processes where a local party delegate committee selected a representative without interference from the national level, enhances his personal vote behavior as indicated by his large distance, 1.06, from the party's median position. This undisciplined behavior contrasts with the party-centered behavior exhibit by Jacquelin Fehr, who was selected via restrictive selection processes. She rarely voted in opposition to the median position of her party as her low distance, 0.035, shows. Moreover, Arthur Loepfe's party, Christian Democratic People's Party (CVP), exhibits lower

levels of cohesion with an average distance of 0.34 between its legislators and the median position. The Social Democratic Party (SPS), on the other hand, used relatively restrictive selection procedures to minimize the personal incentives from the electoral system and assured a relatively cohesive party with an average of 0.09 distance from the party median. Lastly, according to the statistical results presented in this paper, one should see greater variance in Swiss parliament members' behavior than in the Israeli Knesset Members. Indeed, one can see that the standard deviation of the distribution of Swiss MPs' distances is relatively large and stands at 0.23, almost 500% more dispersed than the Israeli Knesset.

Table 4.4 supports the empirical implication that legislators from parties elected across divergent electoral systems but selected via a similar permissive selection procedures exhibit greater variance in their behavior compared to legislators from parties that are selected via centralized restrictive procedures but elected across different electoral systems. The standard deviation of the four legislators that belong to parties that use relatively permissive selection processes, displayed in the first column, is higher than the standard deviation of the distances of the legislators whose parties used restrictive selection processes, 0.47 and 0.04. Therefore, when parties select legislators through restrictive processes, electoral systems affect their behavior minimally, but when parties select legislators using permissive selection procedures, the electoral system yields significant influence on their behavior.

Comparing standard deviation of all the legislators from the four parties in Table 4.4 that select in a permissive manner to the four that select via restrictive selection procedures supports this conclusion. While the variability of legislators selected under restrictive selection processes but elected using differing mechanisms is mini-

mal, indicating that the influence of electoral systems on legislators' behavior under these circumstances is minimal, the variability of legislators selected under permissive selection processes is substantial. Specifically, while the standard deviation of the legislators selected via permissive procedures is 0.22, it is merely 0.08 for parties that select via restrictive centralized intra-party candidate selection processes.

4.6   Conclusion

How legislators perceive their representation styles and how much they emphasize their own unique personal traits and behaviors at the expense of their parties' depends, to a large extent, upon the institutional context within which they operate. In this dissertation, I argued that to understand the way legislators behave, one must think about the rich institutional environment that shapes the incentives and constraints on how legislators cater to their prospective constituents.

Specifically, I extended the current state of the literature concerning the effect of electoral systems and intra-party candidate selection processes on legislators' behavior and argued that their concurrent combined effect is a conditional one. Only by accurately theorizing about this conditional relationship can scholars determine how institutional arrangements shape legislators' behavior and, as a byproduct, shape the policy adopted, the representation styles exhibited by representatives, the legislature's efficiency, and the stability of the political system in general.

In this chapter, I examined the distinct and combined conditional effect of electoral systems and intra-party candidate selection processes on legislators' behavior

using an individual measure of legislator behavior. While Chapter 3 supported the separate and concurrent conditional combined effect of elections and selections on behavior at the party level, I argued that one must use the more appropriate individual level measure of legislators' behavior to avoid potentially engaging in an ecological fallacy.

Therefore, in the current chapter, I used a newly proposed measure, the ideological distance of a legislator from the ideal point of the median of the party, to capture how much legislators behave in a party-centered or a personal vote-seeking manner. I argued that a larger distance of a legislator from the median position of the party indicates that the legislator votes less with the median, a crude proxy for the party leader's position, and acts as a less disciplined party legislator. Using this measure, I expected legislators elected under electoral systems that encourage party-centered behavior to exhibit higher levels of discipline and to have smaller distances from the median ideal point of their party than legislators elected under electoral systems that encourage personal vote-seeking behavior. I hypothesized these latter legislators would behave in a personal vote-seeking manner, emphasize their uniqueness, and, as a consequence, deviate from their party's line. Similarly, I expected legislators from parties that select via restrictive intra-party candidate selection processes to exhibit greater levels of discipline and to demonstrate smaller distances to the party median position compared to legislators selected by permissive selection processes such as primaries.

Regarding the conditional combined effect of electoral systems and selection procedures, I argued that the differences in ideological distances of legislators from parties selecting via permissive and restrictive processes is larger under permissive electoral

systems and smaller under electoral systems that encourage legislators to emphasize collective party reputation. Similarly, I argued that the differences in the behavior of individual parliament members elected under differing electoral systems should increase when parties selected them using permissive selection procedures and should decrease when parties used restrictive centralized intra-party candidate selection processes.

ANOVA supported that all three levels of analysis exhibit a significant variation in the outcome variable. Not only does one observe cross-country but also intra-country cross-party variations in legislators' behavior. This claim follows of my theoretical account. Both the classical (Table 4.1) and the hierarchical ANOVA (Figure 4.2) supported this assertion. The results from the three-level varying-intercept varying-slope hierarchical model supported my theoretical innovation concerning the concurrent conditional combined effect of electoral systems and candidate selection procedures on legislators' behavior. The differences in expected legislator's distance from the party median between legislators selected under permissive selection processes and those selected via restrictive centralized procedures is larger under permissive electoral systems with strong preferential *Ballot Types* compared to restrictive electoral systems that encourage party-centered behavior. The data presented in Table 4.4 further supports these systematic results.

The analysis at the individual level supports a significant substantive effect of *Regime Type* on legislators' behavior according to theoretical expectations as did results from the party-level models presented in Chapter 3. Legislators under parliamentary systems act more cohesively as indicated by their lower expected distance than legislators in presidential systems. While these results hold regardless of the

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type of electoral system or selection procedure, the results indicated, similar to the ones obtained in Chapter 3, that the effect of regime type varies with elections and selections. This indicates the possibility that scholars should consider *Regime Type* as a third substitutive institution that shapes legislators' behavior and examine the conditional effects of the three institutions, elections, selections, and regime type.

4.7 Appendix

4.7.1 Descriptive Statistics for Individual-Level Model

Table 4.5: Descriptive Statistics for Individual-Level Model

Statistics	Distance	Gender	Seniority	Chair	Minister	Deputy
N	6776	6776	6776	6776	6776	6776
Mean	.18	.85	2.10	.09	.07	.06
Minimum	0	0	0	0	0	0
Maximum	2.57	1	26	1	1	1
Variance	.08	.13	6.12	.08	.07	.06
Median	.072	1	1	0	0	0

Statistics	Vote	Pool	M	Ballot Type	Regime	Coalition
N	6776	6776	6776	6776	6776	6776
Mean	1.46	1.26	14.07	.45	.77	.55
Minimum	0	0	1	0	0	0
Maximum	2	2	120	2	1	1
Variance	.45	.82	1045.02	.63	.18	.25
Median	2	2	1	0	1	1

Statistics	Party Size	Selection
N	6776	6776
Mean	150.42	6.01
Minimum	2	1
Maximum	418	8
Variance	18	2.95
Median	81	7

Figure 4.5: Density of Legislators' Ideological Distances
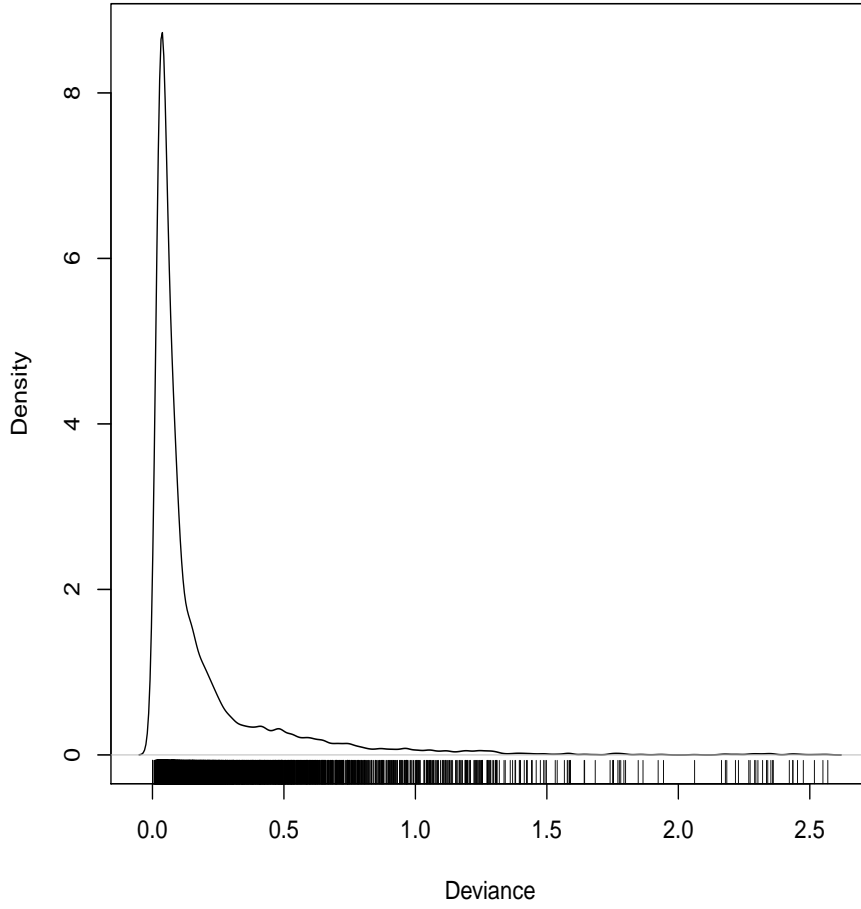
Figure 4.6: Legislators' Ideological Distances in Nine Country-Sessions by Minister-ship Status
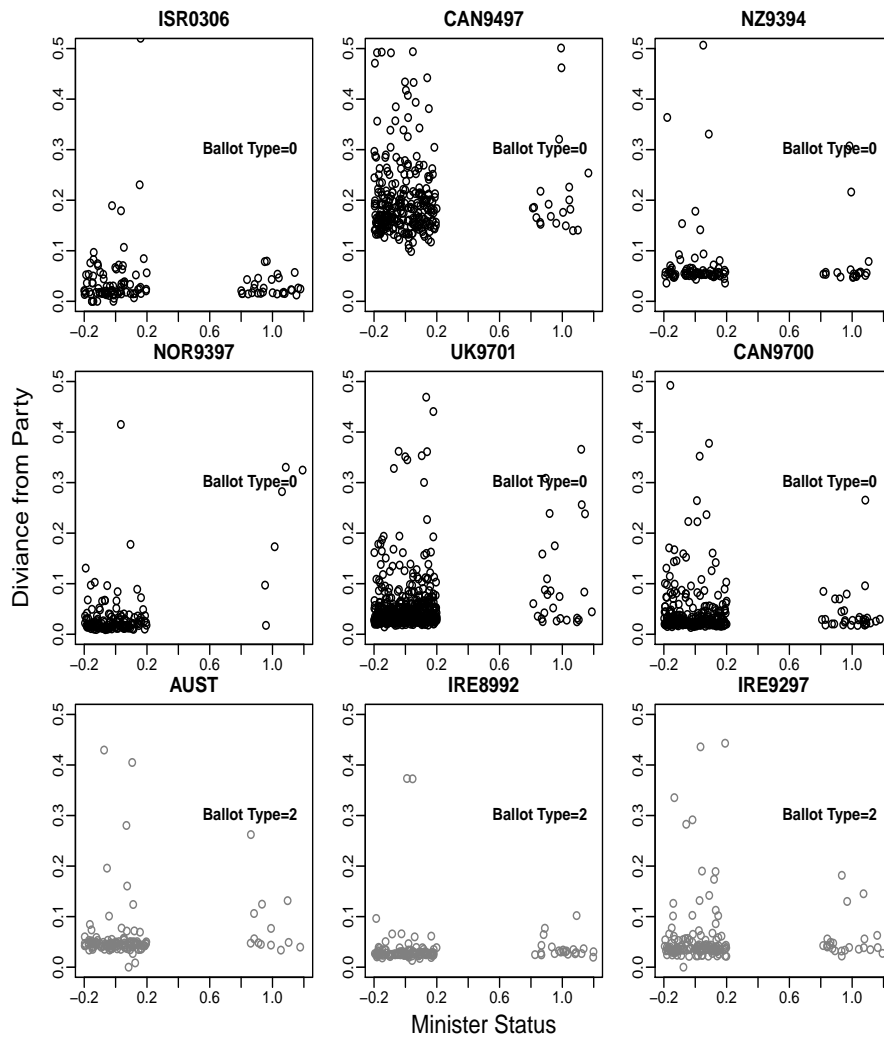
Note: Data was jittered on the x-axis
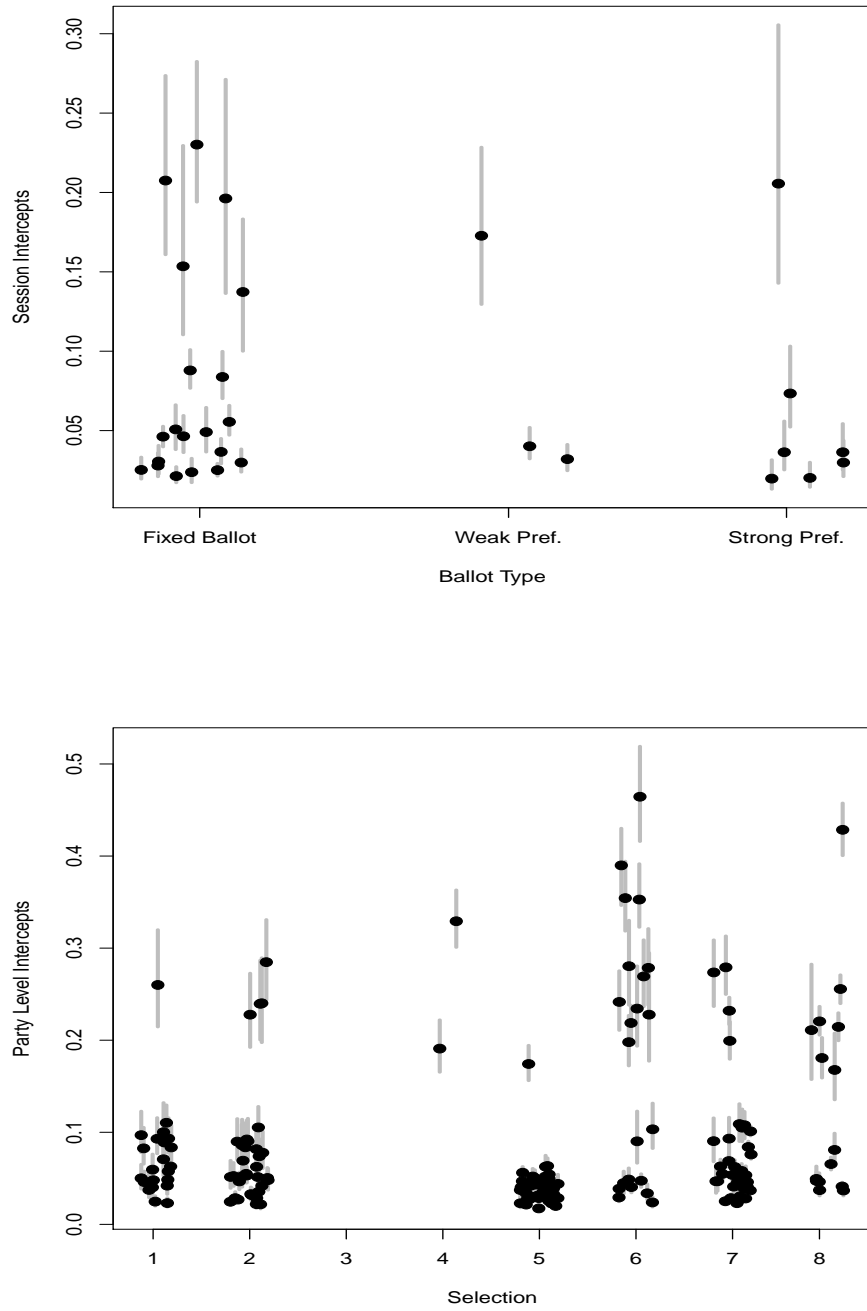
Figure 4.7: Estimated Country-Session Level and Party-Level Intercepts with 80% C.I.
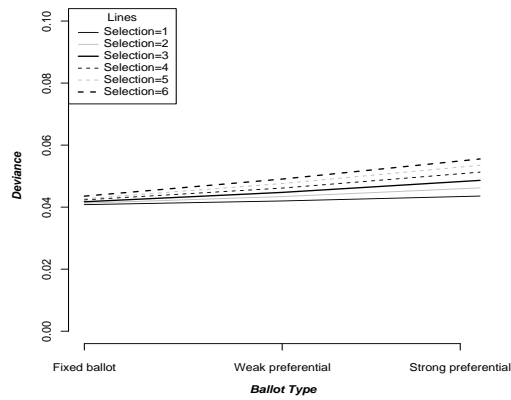
(a) Parliamentary Systems
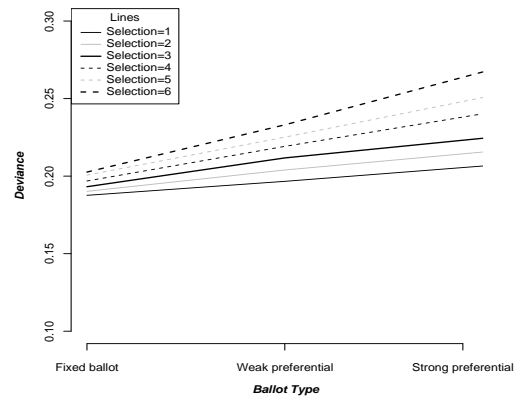
(b) Presidential Systems

Figure 4.8: Expected Ideological Distance under Parliamentary and Presidential Systems, using Bille's classification.
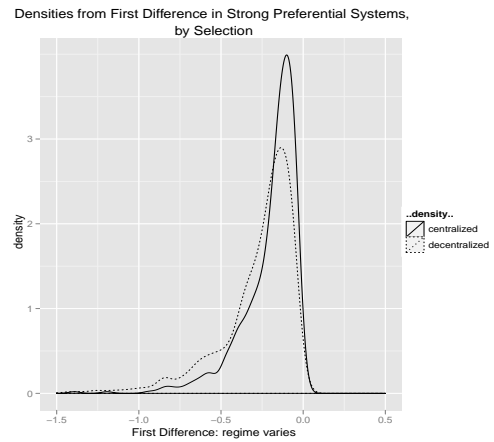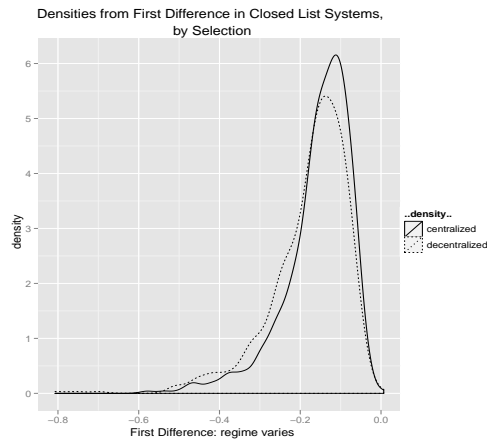
Figure 4.9: First Differences in Expected Ideological Distance when Regime Type Varies in Fixed and Strong Preferential Ballots.

4.7.2 Individual-Level Model

```
 model {
  for(i in 1:n){
    y[i]~dnorm(y.hat[i], tau.y);
    y.hat[i]<-a[Party_ID[i]]+b.seniority*seniority[i]+b.min*minister[i]
              +b.dep*deputy[i]+b.chair*chair[i]+b.gender*gender[i];
    }

  tau.y<-pow(sigma.y, -2);
  sigma.y~dunif(0, 10);
  b.seniority~dnorm(0, .001);
  b.min~dnorm(0, .001);
  b.dep~dnorm(0, .001);
  b.chair~dnorm(0, .001);
  b.gender~dnorm(0, .001);

for(j in 1:J){
  a[j]~dnorm(a.hat[j], tau.a);
  a.hat[j]<-g.a.0[Session_ID[j]]+g.b.0[Session_ID[j]]*selection[j]
  +b.opp*opp[j]+b.size*partysize[j];
}

tau.a<-pow(sigma.a, -2); sigma.a~dunif(0, 10); b.opp~dnorm(0, .001);
b.size~dnorm(0, .001);




for(s in 1:S){ g.a.0[s]~dnorm(g.a.0.hat[s], tau.g.s.0);
g.a.0.hat[s]<-g.a.glob+g.a.ball*ballot[s]+b.pool*Pool[s]+b.vote*Vote[s]
              +b.distm*distm[s]+b.regime*regime[s]+b.unitary*unitary[s];
g.b.0[s]~dnorm(g.b.0.hat[s], tau.g.b.0);
g.b.0.hat[s]<-g.b.glob+g.b.ball*ballot[s];}

g.a.glob~dnorm(0, .001); g.a.ball~dnorm(0, .001); b.pool~dnorm(0,
.001); b.vote~dnorm(0, .001); b.distm~dnorm(0, .001);
b.regime~dnorm(0, .001); b.unitary~dnorm(0, .001);
tau.g.s.0<-pow(sigma.tau.g.s.0, -2); sigma.tau.g.s.0~dunif(0, 10);
g.b.glob~dnorm(0, .001); g.b.ball~dnorm(0, .001);
tau.g.b.0<-pow(sigma.tau.g.b.0, -2); sigma.tau.g.b.0~dunif(0, 10);}
```

4.7.3 Variables, Measurements and Sources

Variables, Measurements and Sources	
Distance	Measures the ideological distance of a legislator from the median position of his or her party which serves as a proxy for the party leadership position. The larger the distance is, the less a legislator votes with the median of the party, and hence the less discipline he or she shows. Specifically, for each country-session specified below, I estimated a one-dimensional Item Response Theory model. To make comparison across country-sessions, I standardized <u>all</u> legislators' ideal points. Thereafter, I used Equation 4.3 to calculate this outcome variable. $$|D_i| = |X_i - median(X_p)| \qquad (4.5)$$ where i denotes individual legislator, X_i denotes legislator's i ideal point, and X_p are the ideal points of all legislators belonging to party p. The following specifies the data source for the individual-level voting behavior for the country-sessions included in the analysis: *Australia 96-98*: Calculated using data scraped and parsed from the Australian Hansard (see: Footnote 27). *Chile97-00*: Calculated using data obtained from John Carey's Legislative Voting Project data (Carey, John. 2009. Legislative Voting Project. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.). *Israel 03-06*: Calculated using original data I gathered (Shomer and Monroe, 2008) (see: Footnote 28). *Israel 06-08*: Calculated using original data I gathered (see: footnote 28). *Canada 94-97*: Calculated using data obtained from John Carey's Legislative Voting Project data (Carey, John. 2009. Legislative Voting Project. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.). *New-Zealand 90-93*: Calculated using data obtained from John Carey's Legislative Voting Project data (Carey, John. 2009. Legislative Voting Project. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.).

New-Zealand 93-94: Calculated using data obtained from John Carey's Legislative Voting Project data (Carey, John. 2009. Legislative Voting Project. <http://www.dartmouth.edu/~jcarey/lvdatatable.htm>. 2009.).

Switzerland 99-03: Calculated using data obtained from Prof. Simon Hug and Prof. Margit Tavits with official approval from the Swiss Parliament[27].

Norway 93-97: Calculated using data obtained from the Norwegian Social Science Data Services[28].

Norway 97-01:Calculated using data obtained from the Norwegian Social Science Data Services.

Norway 01-05:Calculated using data obtained from the Norwegian Social Science Data Services.

U.K 92-97: Calculated using data obtained from the Firth and Spirling data (Firth and Spirling, 2003*a,b*).

U.K 97-01: Calculated using data obtained from the Firth and Spirling data (Firth and Spirling, 2003*a,b*).

U.K 01-05: Calculated using data obtained from the Firth and Spirling data (Firth and Spirling, 2003*a,b*).

Canada 97-00: Calculated using data scraped and parsed from the Canadian Parliament Hansard (see: Footnote 27.).

Canada 00-04: Calculated using data scraped and parsed from the Canadian Parliament Hansard (see: Footnote 27.).

Ireland 89-92: Calculated using data scraped and parsed from the Irish House of Representatives' Hansard (see: Footnote 27.).

Ireland 92-97: Calculated using data scraped and parsed from the Irish House of Representatives' Hansard (see: Footnote 27.).

Ireland 97-02: Calculated using data scraped and parsed from the Irish House of Representatives' Hansard (see: Footnote 27.).

Ireland 02-07: Calculated using data scraped and parsed from the Irish House of Representatives' Hansard (see: Footnote 27.).

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[27]I thank Prof. Simon Hug for his help in obtaining the data.

[28]I thank Prof. Martin Hansen for directing my attention to this data source.

Israel 92-96: Calculated using an original data set I gathered (see: Footnote 28.).

Israel 96-99: Calculated using an original data set I gathered (see: Footnote 28.).

Israel 99-03: Calculated using an original data set I gathered (see: Footnote 28.).

Belgium 95-99: Calculated using data provided by Prof. Abdul G. Noury.

Czech Republic 96-98: Calculated using data obtained from John Carey's Legislative Voting Project data (Carey, John. 2009. Legislative Voting Project. <`http://www.dartmouth.edu/~jcarey/lvdatatable.htm`>. 2009.).

Brazil 02-07: Calculated using data obtained from Figueiredo and Limongi (2008)[29].

Czech Republic 98-02: Calculated using data obtained from Prof. Margit Tavits.

U.S 63-65: Calculated using Poole and Rosenthal roll call data (<`http://wwww.voteview.com`>).

U.S 93-95: Calculated using Poole and Rosenthal roll call data (<`http://wwww.voteview.com`>).

Argentina 05-07: Calculated using data received from Prof. Mark Jones.

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[29]I would like to thank Prof. Scott Desposato for suggesting this data source. I would also like to thank Prof. Limongi for providing the data.

Ballot Access   Measures according to the index presented at Figure 2.1. I collected
                     data from the following secondary sources: Bille (2001); Carty and
                     Eagles (2003); Catt (1997); Cross (2002, 2004); De-Luca, Jones
                     and Tula (2002); Deegan-Krause (2006); Deschouwer (1992); Er-
                     ickson (1997); Farrell (1994); Frizzell and Pammett (1997); Gal-
                     ligan (1999, 2002); Hansen and Saglie (2005); Hazan and Voer-
                     man (2006); Hopkin (2001); Janda (1980); Johns (2000); Katz and
                     Mair (1992); Kristjansson (2002); Kuitunen (2002); Lundell (2004);
                     Miller (1999); Mitchell (2006); Mulgan (2004); Navia (2008); Nor-
                     ris and Lovenduski (1997); Pammett and Dornan (2001); Rahat
                     (2002, 2008); Rahat and Sher-Hadar (1999); Rosenthal and Subrata
                     (1969); Sayers (1999); Siavelis and Morgenstern (2008b); Szczer-
                     biak (2001); Young and Cross (2002) as well as Rahat's data-set
                     on candidate-selection processes, and Crisp et al. (2004) data-set on
                     candidate selection procedures. Data for Argentina 2005 was ob-
                     tained via personal communication with Prof. Jones (Jones, Mark.
                     {mpjones@rice.edu} 2009, April. 16. Thanks [Personal email].
                     (2009. April. 16.)).

Coalition   Measures whether the party was in the opposition, coded 0, or
                     in the coalition, coded 1, in the period examined. In presiden-
                     tial system, this variable measures whether this is the president's
                     party or not. I collected most of the data from Keefer's 2006
                     Database of Political Institutions (DPI). I supplemented this data
                     using Woldendorp, Keman and Budge (2000) as well as the CIA
                     World Fact Book (Central Intelligence Agency. 2009. World Fact
                     Book, 2009. <https://www.cia.gov/library/publications/
                     the-world-factbook/index.html> 2009, Jan. 7).

Size   Measures the number of seats the party held in the period exam-
                     ined. I collected data from Keefer's 2006 Database of Political
                     Institutions (DPI) and Woldendorp, Keman and Budge (2000).

Pool   Measures whether a candidate for national office can expect to
                     benefit from electoral support for other candidates in his party,
                     possibly in other districts. It measures whether and at what level
                     the system pools votes when calculating seat allocations. Coded 0
                     if votes cast are pooled across the whole party. Coded 1 if votes are
                     pooled at the sub-party level. Coded 2 if votes cast for a candidate
                     contribute only to that candidate's electoral success. According to
                     this definition and as opposed to Carey and Shugart (1995), this
                     definition leads me to classify SMD systems as 2 because votes in
                     SMD are pooled neither to the party or the sub-party level. I used
                     the Political Particularism Around the World Data set (Seddon
                     et al., 2002), and the Electoral Systems and the Personal Vote
                     Data set (Johnson and Wallack, 2007).

Vote	measures "limitations on the number of individuals that voters can support" (Seddon et al., 2002, 12). Coded 0 where a voter can cast a single vote for a party. Coded 1 where voters cast multiple votes for candidates who might be from the same party. Electoral systems were voters cast a vote for a local candidate and a vote for a national candidate are coded as 1. Coded 2 where voters have a single vote for a single candidate. Note that SMD electoral systems are coded as 2 as voters have a single vote for a single candidate. This stands in opposition to Carey and Shugart (1995).)
District Magnitude	Measures the average district magnitude from the viewpoint of the individual legislator. It is a weighted average of the district magnitudes in a country. The weights are calculated by how many legislators run in districts of each size. Thus, in a country with 50 single member districts and one 150 member national district, District Magnitude will equal $(150*150+50*1)/200$ equals to 112.75. I obtained data from the Political Particularism around the World Data set (Seddon et al., 2002) and the Electoral Systems and the Personal Vote data set (Johnson and Wallack, 2007).
Ballot Type	Measures the degree to which voters have control over the ballot on the general election day. Coded 0 when voters cannot change the list. Coded 1 in Weak preferential systems where predetermined list-order is important, but preferential might limit its effect. Coded 2 for strong preferential ballots where "preference votes are the sole basis on which individual legislators are chosen" (Karvonen, 2004, 207). I coded this variable using Lundell and Karvonen (2003). SMD systems with a single candidate presented to the voters at election stage are classified as fixed ballots, coded 0, since voters cannot change the "list" at the general election stage. If an SMD system has multiple candidate from the same party presented to the voters, then voters can change the list and their preferential vote is the only determinant of the candidate chosen. In this case, this variable will be coded 2. Using this logic for classifying SMDs, I classify Mixed Member systems as 0 as the CLPR tier as well as the SMD tier are both classified as fixed ballots, 0.

Regime Type	Indicates whether the country is a presidential, coded 0, or a parliamentary system, coded 1. I took the data for this variable from the "system" variable in Keefer's 2006 Database of Political Institutions (DPI). This variable in the DPI data set has 3 codes: 2 signifies parliamentary systems, 1 codes an assembly elected president, and 0 is for presidential systems. Systems with unelected executives, those scoring a 2 or 3 on the Executive Index of Political Competitiveness in the DPI data set, are classified as presidential systems, coded 0. Countries in which the president is elected directly or by an electoral college (whose only function is to elect the president), in cases where there is no prime minister, are also coded as 0. In countries with both a prime minister and a president, the classification into presidential or parliamentary systems considers the following factors: a) Veto power: can the president veto legislation and does parliament need a super-majority to override the veto?. b) Can the president appoint and dismiss the prime minister and/or other ministers?. c) Can the president dissolve the parliament and call for new elections?. Thus, a country with both a prime minister and a president will be classified as a presidential system if (a) is true or if (b) and (c) are true. Systems where the legislature elects the chief executive are classified as parliamentary, coded 2, with one caveat: in cases where the legislature elects the prime minister but for a fixed period will be classified as presidential systems (0). Thus, although DPI classifies Switzerland a parliamentary, Switzerland is a hybrid type where the prime minister is elected by legislature but for a fixed period. The legislature cannot vote no confidence in the executive. Thus, in this dissertation, I coded it presidential (0).
Unitary	Measures whether all powers reside in a central sovereign parliament such that power is not shared, coded 0. In federal systems, coded 1, power is divided between one central and several regional governments. I took this data from the Comparative Data Set on Political Institutions (Lundell and Karvonen, 2003), as well as the PolityIV (Marshall and Jaggers, 2005).
Seniority	Measures the number of sessions in which a legislator served prior to the one examined. This operationalization does not differentiate between a legislator who served four consecutive terms immediately preceding the one examined and a legislator who served two terms, left the legislature for three terms, and then served two additional legislative terms immediately before the one examined. The sources for the data are provided below

Australia 96-98: Obtained using individual parliament members biographies available on the Australian Parliament's web-site <`http://www.agh.gov.au`>[30].

Chile97-00: Obtained from Prof. Felipe Botero Jaramillo (Felipe, Botero Jaramillo <`fbotero@uniandes.edu.co`> 2009, Feb 2. Chilean Data [personal email]. (2009, Feb 2).)[31].

Israel 03-06: Obtained from the Knesset's web-site<`http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=16`>.

Israel 06-08: Obtained from the Knesset's web-site<`http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=17`>.

Canada 94-97: Obtained from the House of Commons' web-site <`http://www2.parl.gc.ca/Parlinfo/Lists/Members.aspx?Language=E&SortColumn=PersonName&SortDirection=ASC&Parliament=8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=&Name=&Party=&Province=&Gender=&New=False&Current=False&Picture=False`>

New-Zealand 90-93: Obtained from the New-Zealand Parliament's web-site <`http://www.parliament.nz/en-NZ/MPP/MPs/`>

New-Zealand 93-94: Obtained from the New-Zealand Parliament's web-site <`http://www.parliament.nz/en-NZ/MPP/MPs/`>

Switzerland 99-03: Obtained from the Swiss Parliament's web-site <`http://www.parliament.ch/e/suche/pages/ratsmitglieder.aspx`>

Norway 93-97: Obtained from the Norwegian Parliament's web-site <`http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=1993-97`>[32]

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[30]In affect I used the internet archive to retrieve information on legislators from non-current legislative terms <`http://web/archive.org`>.

[31]Since democratization occurred in 1989 (1990-1994 is usually considered a transit period) I start counting seniority from 1990. Therefore, at most a legislator can have a seniority of 2 (1989-1993, $1994 - 1997$).

[32]Note that if a member was a <u>substitute</u> in a previous session, it did not count as a served session for the purpose of calculating the seniority .

Norway 97-01: Obtained from the Norwegian Par-
liament's   web-site   <http://www.stortinget.no/
no/Representanter-og-komiteer/Representantene/
Innvalgte-fra-1945--/?pid=1997-2001> (see Footnote 32).

Norway 01-05: Obtained from the Norwegian Par-
liament's   web-site   <http://www.stortinget.no/
no/Representanter-og-komiteer/Representantene/
Innvalgte-fra-1945--/?pid=2001-2005> (see Footnote 32).

U.K 92-97: Obtained from the House of Commons Information
Office (Kevin, Williams. <HCINFO@parliament.uk> 2009, March
31. Information [personal email]. (2009, March 31).).

U.K 97-01: Obtained from the House of Commons Information
Office (Kevin, Williams. <HCINFO@parliament.uk> 2009, March
31. Information [personal email]. (2009, March 31).).

U.K 01-05: Obtained from the House of Commons Information
Office (Kevin, Williams. <HCINFO@parliament.uk> 2009, March
31. Information [personal email]. (2009, March 31).).

Canada 97-00: Obtained from the House of Com-
mons'   web-site   <http://www2.parl.gc.ca/Parlinfo/
Lists/Members.aspx?Language=E&SortColumn=
PersonName&SortDirection=ASC&Parliament=
8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=
&Name=&Party=&Province=&Gender=&New=False&Current=
False&Picture=False>

Canada 00-04: Obtained from the House of Com-
mons'   web-site   <http://www2.parl.gc.ca/Parlinfo/
Lists/Members.aspx?Language=E&SortColumn=
PersonName&SortDirection=ASC&Parliament=
8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=
&Name=&Party=&Province=&Gender=&New=False&Current=
False&Picture=False>

Ireland 89-92: Obtained from the Ďail Éiveann Mem-
bers Data-base <http://www.oireachtas.ie/members-hist/
default.asp?housetype=0>.

Ireland 92-97: Obtained from the Ďail Éiveann Mem-
bers Data-base <http://www.oireachtas.ie/members-hist/
default.asp?housetype=0>.

Ireland 97-02: Obtained from the Ďail Éiveann Mem-
bers Data-base <http://www.oireachtas.ie/members-hist/
default.asp?housetype=0>.

Ireland 02-07: Obtained from the Ďail Éiveann Members Data-base <`http://www.oireachtas.ie/members-hist/default.asp?housetype=0`>.

Israel 92-96: Obtained from the Knesset's web-site<`http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=13`>.

Israel 96-99: Obtained from the Knesset's web-site<`http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=14`>.

Israel 99-03: Obtained from the Knesset's web-site<`http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=15`>.

Belgium 95-99: Obtained from the Belgian Parliament's web-site <`http://www.lachambre.be/kvvcr/showpage.cfm?section=/depute&language=nl&rightmenu=right_depute&cfm=cvlist52.cfm?legis=49&today=n`>

Czech Republic 96-98: Obtained from the Czech Republic Chamber of Deputies' web-site <`http://www.psp/cz/cgi-bin/eng/sqw/fsmen.sqw?zvo=1`>

Brazil 02-07: Obtained from the Brazilian Chamber of Deputies' web-site <`http://www2.camara.gov.br/deputados`>

Czech Republic 98-02: Obtained from the Czech Republic Chamber of Deputies' web-site <`http://www.psp/cz/cgi-bin/eng/sqw/fsmen.sqw?zvo=1`>

U.S 63-65: Obtained from the Biographic Directory of the United States Congress <`http://bioguide.congress.gov/biosearch/biosearch.asp`>

U.S 93-95: Obtained from the Biographic Directory of the United States Congress <`http://bioguide.congress.gov/biosearch/biosearch.asp`>

Argentina 05-07: Obtained from the Argentinean Chamber of Deputies' web-site <`http://www.diputados.gov.ar/`>[33] concurrent with information obtained from Prof. Maria Escobar-Lemmon (Escobar-Lemmon, Maria. <`escobar@politics.tamu.edu`> 2009, Apr 18. Seniority in Argentina [personal email]. (2009, Apr 18).)

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[33]In affect I used the internet archive to retrieve information on legislators from non-current legislative terms <`http://web/archive.org`>.

Minister and Deputy Minister	Indicates whether the legislator held the office in the period examined. Coded 1 where legislator held office. Coded 0 if legislator did not hold the office. In the period examined, if more than one government formed, all legislators who were ministers or deputy ministers in either of the governments are coded as yes. Note that in the U.K deputy ministers are terms junior ministers, in Canada they are sometimes terms parliamentary secretary and in Ireland they are terms ministry of state. Data for these variables was obtained from the following resources:

Australia 96-98: Obtained from the Australian Parliament's web-site <http://www.agh.gov.au>.

Israel 03-06: Obtained from the Knesset's web-site<http://www.knesset.gov.il/govt/heb/GovtByNumber.asp?govt=30>.

Israel 06-08: Obtained from the Knesset's web-site<http://www.knesset.gov.il/govt/heb/GovtByNumber.asp?govt=31>.

Canada 94-97: Obtained from the House of Commons' web-site <http://www2.parl.gc.ca/Parlinfo/Lists/Members.aspx?Language=E&SortColumn=PersonName&SortDirection=ASC&Parliament=8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=&Name=&Party=&Province=&Gender=&New=False&Current=False&Picture=False>

New-Zealand 90-93: Obtained from the New-Zealand Parliament's web-site <http://www.parliament.nz/en-NZ/MPP/MPs/>

New-Zealand 93-94:Obtained from the New-Zealand Parliament's web-site <http://www.parliament.nz/en-NZ/MPP/MPs/>

Norway 93-97: Obtained from the Norwegian Parliament's web-site <http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=1993-97>

Norway 97-01: Obtained from the Norwegian Parliament's web-site <http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=1997-2001>.

Norway 01-05: Obtained from the Norwegian Parliament's web-site <http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=2001-2005>.

U.K 92-97: Obtained from the House of Commons Information Office (Kevin, Williams. `<HCINFO@parliament.uk>` 2009, March 31. Information [personal email]. (2009, March 31).).

U.K 97-01: Obtained from the House of Commons Information Office (Kevin, Williams. `<HCINFO@parliament.uk>` 2009, March 31. Information [personal email]. (2009, March 31).).

U.K 01-05: Obtained from the House of Commons Information Office (Kevin, Williams. `<HCINFO@parliament.uk>` 2009, March 31. Information [personal email]. (2009, March 31).).

Canada 97-00: Obtained from the House of Commons' web-site `<http://www2.parl.gc.ca/Parlinfo/Lists/Members.aspx?Language=E&SortColumn=PersonName&SortDirection=ASC&Parliament=8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=&Name=&Party=&Province=&Gender=&New=False&Current=False&Picture=False>`

Canada 00-04: Obtained from the House of Commons' web-site `<http://www2.parl.gc.ca/Parlinfo/Lists/Members.aspx?Language=E&SortColumn=PersonName&SortDirection=ASC&Parliament=8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=&Name=&Party=&Province=&Gender=&New=False&Current=False&Picture=False>`

Ireland 89-92: Obtained from the Dáil Éiveann Members Data-base `<http://www.oireachtas.ie/members-hist/default.asp?housetype=0>`.

Ireland 92-97: Obtained from the Dáil Éiveann Members Data-base `<http://www.oireachtas.ie/members-hist/default.asp?housetype=0>`.

Ireland 97-02: Obtained from the Dáil Éiveann Members Data-base `<http://www.oireachtas.ie/members-hist/default.asp?housetype=0>`.

Ireland 02-07: Obtained from the Dáil Éiveann Members Data-base `<http://www.oireachtas.ie/members-hist/default.asp?housetype=0>`.

Israel 92-96: Obtained from the Knesset's web-site`<http://www.knesset.gov.il/govt/heb/GovtByNumber.asp?govt=25>`, and `<http://www.knesset.gov.il/govt/heb/GovtByNumber.asp?govt=26>`.

Israel 96-99: Obtained from the Knesset's web-site`<http://www.knesset.gov.il/govt/heb/GovtByNumber.asp?govt=27>`.

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Israel 99-03: Obtained from the Knesset's web-site<`http://www.knesset.gov.il/govt/heb/GovtByNumber.asp?govt=28`>, and <`http://www.knesset.gov.il/govt/heb/GovtByNumber.asp?govt=29`>.

Belgium 95-99: Obtained from the Belgian Parliament's web-site <`http://www.lachambre.be/kvvcr/showpage.cfm?section=/depute&language=nl&rightmenu=right_depute&cfm=cvlist52.cfm?legis=49&today=n`>

Czech Republic 96-98: Obtained from the Czech Republic Chamber of Deputies' web-site <`http://www.psp/cz/cgi-bin/eng/sqw/snem.sqw?org=148`>

Czech Republic 98-02: Obtained from the Czech Republic Chamber of Deputies' web-site <`http://www.psp/cz/cgi-bin/eng/sqw/snem.sqw?org=148`>

`Committee Chair`	Indicates whether the legislator chaired a committee during the examined session. Coded 0 for no or 1 for yes. This variable only considers standing committees; chairing a special committee, a sub-committee, or any other type of a committee does not qualify the member to be coded as a committee chair. Data was obtained from the following sources:

Australia 96-98: Obtained from the Australian House of Representatives' Clerk Assistant (Bryant, Sharon <`Sharon_Bryant.Reps@aph.gov.au`> 2009, March 16. Committee Members [persoanl email]. (2009, March 16).).

Chile97-00: Obtained from Prof. Maria Escobar-Lemmon (Escobar-Lemmon, Maria. <`escobar@politics.tamu.edu`> 2009, Jan 31. Committee Chairs [personal email]. (2009, Jan 31).).

Israel 03-06: Obtained from the Knesset's web-site<`http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=16`>.

Israel 06-08: Obtained from the Knesset's web-site<`http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=17`>.

Canada 94-97: Obtained from the House of Commons' web-site <`http://www2.parl.gc.ca/Parlinfo/Lists/Members.aspx?Language=E&SortColumn=PersonName&SortDirection=ASC&Parliament=8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=&Name=&Party=&Province=&Gender=&New=False&Current=False&Picture=False`>

New-Zealand 90-93: Obtained from the New-Zealand Parliament's web-site <http://www.parliament.nz/en-NZ/MPP/MPs/>

New-Zealand 93-94:obtained from the New-Zealand Parliament's web-site <http://www.parliament.nz/en-NZ/MPP/MPs/>

Switzerland 99-03: Obtained from the Swiss Parliament's web-site <http://www.parliament.ch/e/suche/pages/ratsmitglieder.aspx>[34]

Norway 93-97: Obtained from the Norwegian Parliament's web-site <http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=1993-97>

Norway 97-01: Obtained from the Norwegian Parliament's web-site <http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=1997-2001>.

Norway 01-05: Obtained from the Norwegian Parliament's web-site <http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=2001-2005>.

U.K 92-97: Obtained from the House of Commons Information Office (Kevin, Williams. <HCINFO@parliament.uk> 2009, March 31. Information [personal email]. (2009, March 31).).

U.K 97-01: Obtained from the House of Commons Information Office (Kevin, Williams. <HCINFO@parliament.uk> 2009, March 31. Information [personal email]. (2009, March 31).).

U.K 01-05: Obtained from the House of Commons Information Office (Kevin, Williams. <HCINFO@parliament.uk> 2009, March 31. Information [personal email]. (2009, March 31).).

Canada 97-00: Obtained from the House of Commons' web-site <http://www2.parl.gc.ca/Parlinfo/Lists/Members.aspx?Language=E&SortColumn=PersonName&SortDirection=ASC&Parliament=8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=&Name=&Party=&Province=&Gender=&New=False&Current=False&Picture=False>

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[34]In affect I used the internet archive to retrieve information on legislators from non-current legislative terms <http://web/archive.org>.

Canada 00-04: Obtained from the House of Commons' web-site <http://www2.parl.gc.ca/Parlinfo/
Lists/Members.aspx?Language=E&SortColumn=
PersonName&SortDirection=ASC&Parliament=
8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=
&Name=&Party=&Province=&Gender=&New=False&Current=
False&Picture=False>

Ireland 89-92: Obtained from the Dáil Éiveann Members Data-base <http://www.oireachtas.ie/members-hist/
default.asp?housetype=0>.

Ireland 92-97: Obtained from the Dáil Éiveann Members Data-base <http://www.oireachtas.ie/members-hist/
default.asp?housetype=0>.

Ireland 97-02: Obtained from the Dáil Éiveann Members Data-base <http://www.oireachtas.ie/members-hist/
default.asp?housetype=0>.

Ireland 02-07: Obtained from the Dáil Éiveann Members Data-base <http://www.oireachtas.ie/members-hist/
default.asp?housetype=0>.

Israel 92-96: Obtained from the Knesset's web-site<http:
//www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?
knesset=13>.

Israel 96-99: Obtained from the Knesset's web-site<http:
//www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?
knesset=14>.

Israel 99-03: Obtained from the Knesset's web-site<http:
//www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?
knesset=15>.

Belgium 95-99: Obtained from the Belgian Parliament's web-site <http://www.lachambre.be/kvvcr/showpage.cfm?
section=/depute&language=nl&rightmenu=right_depute&cfm=
cvlist52.cfm?legis=49&today=n>

Czech Republic 96-98: Obtained from the Czech Republic Chamber of Deputies' web-site <http://www.psp/cz/cgi-bin/eng/sqw/
fsmen.sqw?zvo=1>

Brazil 02-07: Obtained from the Brazilian Chamber of Deputies' web-site <http://www2.camara.gov.br/deputados>

Czech Republic 98-02: Obtained from the Czech Republic Chamber of Deputies' web-site <http://www.psp/cz/cgi-bin/eng/sqw/
fsmen.sqw?zvo=1>

U.S 63-65: Obtained from each committees' web-site

U.S   93-95:   Obtained   from   Prof.   Charles
Stewart   and   Prof.   Jonathan   Woon's   dataset
<http://web.mit.edu/cstewart/www/data/codebook.txt>

Argentina 05-07: Obtained from the Argentinean Chamber of
Deputies' web-site <http://www.diputados.gov.ar/>[35]

Gender   Indicates the gender of the legislator. Coded 0 for female and coded
1 for male. Data was obtained from the following sources:

Australia 96-98: Obtained using individual parliament mem-
bers biographies available on the Australian Parliament's web-site
<http://www.agh.gov.au>[36].

Chile97-00: Obtained from Prof. Felipe Botero Jaramillo (Fe-
lipe, Botero Jaramillo <fbotero@uniandes.edu.co> 2009, Feb
2. Chilean Data [personal email]. (2009, Feb 2).). The data was
supplemented with information from the Chilean Office of Public
Relations.

Israel 03-06:   Obtained from the Knesset's web-site<http:
//www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?
knesset=16>.

Israel 06-08:   Obtained from the Knesset's web-site<http:
//www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?
knesset=17>.

Canada   94-97:   Obtained   from   the   House   of   Com-
mons'   web-site   <http://www2.parl.gc.ca/Parlinfo/
Lists/Members.aspx?Language=E&SortColumn=
PersonName&SortDirection=ASC&Parliament=
8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=
&Name=&Party=&Province=&Gender=&New=False&Current=
False&Picture=False>

New-Zealand 90-93: Obtained from the New-Zealand Parliament's
web-site <http://www.parliament.nz/en-NZ/MPP/MPs/>

New-Zealand 93-94:Obtained from the New-Zealand Parliament's
web-site <http://www.parliament.nz/en-NZ/MPP/MPs/>

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[35]In affect I used the internet archive to retrieve information on legislators from non-current
legislative terms <http://web/archive.org>.

[36]In affect I used the internet archive to retrieve information on legislators from non-current
legislative terms <http://web/archive.org>.

Switzerland 99-03:   Obtained from the Swiss Parliament's web-site   `<http://www.parliament.ch/e/suche/pages/ratsmitglieder.aspx>`[37]

Norway 93-97:   Obtained   from   the   Norwegian   Parliament's   web-site   `<http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=1993-97>`

Norway 97-01:   Obtained   from   the   Norwegian   Parliament's   web-site   `<http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=1997-2001>`.

Norway 01-05:   Obtained   from   the   Norwegian   Parliament's   web-site   `<http://www.stortinget.no/no/Representanter-og-komiteer/Representantene/Innvalgte-fra-1945--/?pid=2001-2005>`.

U.K 92-97: Obtained from the House of Commons Information Office (Kevin, Williams. `<HCINFO@parliament.uk>` 2009, March 31. Information [personal email]. (2009, March 31).).

U.K 97-01: Obtained from the House of Commons Information Office (Kevin, Williams. `<HCINFO@parliament.uk>` 2009, March 31. Information [personal email]. (2009, March 31).).

U.K 01-05: Obtained from the House of Commons Information Office (Kevin, Williams. `<HCINFO@parliament.uk>` 2009, March 31. Information [personal email]. (2009, March 31).).

Canada 97-00:   Obtained   from   the   House   of   Commons'   web-site   `<http://www2.parl.gc.ca/Parlinfo/Lists/Members.aspx?Language=E&SortColumn=PersonName&SortDirection=ASC&Parliament=8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=&Name=&Party=&Province=&Gender=&New=False&Current=False&Picture=False>`

Canada 00-04:   Obtained   from   the   House   of   Commons'   web-site   `<http://www2.parl.gc.ca/Parlinfo/Lists/Members.aspx?Language=E&SortColumn=PersonName&SortDirection=ASC&Parliament=8714654b-cdbf-48a2-b1ad-57a3c8ece839&Riding=&Name=&Party=&Province=&Gender=&New=False&Current=False&Picture=False>`

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[37]In affect I used the internet archive to retrieve information on legislators from non-current legislative terms `<http://web/archive.org>`.

Ireland 89-92: Obtained from the Ďail Éiveann Members Data-base `<http://www.oireachtas.ie/members-hist/default.asp?housetype=0>`.

Ireland 92-97: Obtained from the Ďail Éiveann Members Data-base `<http://www.oireachtas.ie/members-hist/default.asp?housetype=0>`.

Ireland 97-02: Obtained from the Ďail Éiveann Members Data-base `<http://www.oireachtas.ie/members-hist/default.asp?housetype=0>`.

Ireland 02-07: Obtained from the Ďail Éiveann Members Data-base `<http://www.oireachtas.ie/members-hist/default.asp?housetype=0>`.

Israel 92-96: Obtained from the Knesset's web-site`<http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=13>`.

Israel 96-99: Obtained from the Knesset's web-site`<http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=14>`.

Israel 99-03: Obtained from the Knesset's web-site`<http://www.knesset.gov.il/mk/eng/mkindexbyknesset_eng.asp?knesset=15>`.

Belgium 95-99: Obtained from the Belgian Parliament's web-site `<http://www.lachambre.be/kvvcr/showpage.cfm?section=/depute&language=nl&rightmenu=right_depute&cfm=cvlist52.cfm?legis=49&today=n>`

Czech Republic 96-98: Obtained from the Czech Republic Chamber of Deputies' web-site `<http://www.psp/cz/cgi-bin/eng/sqw/fsmen.sqw?zvo=1>`

Brazil 02-07: Obtained from the Brazilian Chamber of Deputies' web-site `<http://www2.camara.gov.br/deputados>`

Czech Republic 98-02: Obtained from the Czech Republic Chamber of Deputies' web-site `<http://www.psp/cz/cgi-bin/eng/sqw/fsmen.sqw?zvo=1>`

U.S 63-65: Obtained from the Biographic Directory of the United States Congress `<http://bioguide.congress.gov/biosearch/biosearch.asp>`

U.S 93-95: Obtained from the Biographic Directory of the United States Congress <`http://bioguide.congress.gov/biosearch/biosearch.asp`>

Argentina 05-07: Obtained from the Argentinean Chamber of Deputies' web-site <`http://www.diputados.gov.ar/`>[38]

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[38]In affect I used the internet archive to retrieve information on legislators from non-current legislative terms <`http://web/archive.org`>.

Chapter 5

Conclusion

> *Parties are clearly not unitary actors and functions as unitary actors only to the extent that their leaders are able to maintain disciplined behavior between rank and file*
>
> (Laver, 1999, 28)

Party leaders' ability to maintain cohesive party record and to discipline individual legislators' behavior is important for many reasons. Cohesive parties are an essential component of the Responsible Party Doctrine, they enhance a party's electoral performance, and they limit the common pool resource problems. Disciplined legislators are more predictable and make policy adoption more predictable. Unity is important, in parliamentary system, for governmental survival and is generally important for democratic stability.

Yet, the degree to which parties are cohesive depends, for the most part, on the institutional environment in which parties and legislators operate. While some insti-

tutions generate incentives and constraints for legislators to adhere to the party line and to maintain a high degree of discipline, others encourage parliament members to emphasize their individualistic behaviors at the expense of their parties' collective unified record. In this dissertation, I argued that the combination of institutions and their interaction with one another influences the incentive structure legislators face. I specifically shed light on how electoral systems and intra-party candidate selection processes, separately and in tandem, influence how legislators perceive their representation styles and the way to behave.

After differentiating conceptually and empirically between electoral systems and intra-party candidate selection processes in Chapter 2, I presented my theory of the distinct and combined effect of elections and selections for legislators' behavior, more specifically on the balance that legislators strike between emphasizing a unified party record and cultivating a personal reputation. I argued that electoral systems that encourage intra-party competition have less party discipline compared to electoral systems that encourage party-centered behavior. I also claimed that more restrictive candidate selection processes, that is, the more they are exclusive and centralized, the more incentive legislators have to follow the party line and to maintain a cohesive party record.

Most importantly, I argued that electoral systems and candidate selection procedures will interact with one another to affect legislators' behavior. Specifically, I hypothesized that the effect of electoral systems will be greater when permissive intra-party candidate selection processes encourage personal vote-seeking behavior and that it will be minimal with restrictive selection processes. Similarly, I argued that the influence of candidate selection processes on cohesion depend upon the elec-

toral system and increases if the electoral system encourages personal vote seeking behavior.

I tested my theory using party-level models in Chapter 3 and using an individual-level model focusing on legislators in Chapter 4. All models support my theory, so I conclude that electoral systems and candidate selection processes create a more complex institutional environment than scholars presumed.

To this end, I have collected original data-sets. First, I collected a data set on intra-party candidate selection processes with 523 parties from 47 countries. Using this data, I ascertained empirically my call for the theoretical/conceptual differentiation of electoral systems and candidate selection processes in Chapter 2. For a subset, 251 parties from 24 countries, I collected data on Rice scores and Weighted Rice scores. Using these party-level measurements of behavior, I tested the hypotheses concerning the separate and conditional combined effects of elections and selections on legislators' behavior in Chapter 3. Lastly, I created an original data set with an originally defined measure of legislators' behavior, ideological distance, that I estimated for the $6,777$ legislators for whom data was available. Using this original data set, I found additional support for my theory.

Interestingly, I find that when one uses a party-level measure of behavior that disregards unanimous votes and weighs the votes by their closeness, coalition parties appear more cohesive than their counterparts in the opposition. Under these conditions, maintaining cohesion becomes more important. Therefore, that coalition party leaders have a job within which they can induce discipline becomes consequential. On the other hand, when one uses the Rice scores as a measure for behavior, effectively

disregarding the closeness of the vote, and includes unanimous in the calculation, the discipline of coalition parties became less meaningful. When a vote is unanimous or is predicted to have a large margin of victory, coalition party leaders need not spend their efforts disciplining reluctant legislators as they need to when the votes are close.

I argued in Chapter 3 that this rational may provide an explanation for the contradictory results in Table 3.2 and table 3.5. Interestingly enough, one can interpret the individual level results from Table 4.2 to lie in between these two extremes. Although the coefficient does not differ significantly from zero, the median of the posterior distribution indicates that legislators whose parties belonged to the coalition exhibited smaller ideological distance from the median position of their parties and were more disciplined. In the IRT models, which discard unanimous votes similar to the route taken with Weighted Rice scores, the votes are not weighed by their closeness similar to Rice scores. It is not surprising, then, to find these inconclusive results concerning the effect of coalition on legislators' behavior.

Voting record at the party or the individual legislator level offers but one manifestation of legislators' behavior. In light of the importance in maintaining a unified party record, the variance in voting patterns and dissent measured as Rice scores or my ideological distance measures are not large. For the most part, party leaders have tools to ensure a relatively high degree of discipline. It will be worthwhile in future research to examine whether the theory holds true when legislators' behavior is measured by other means[1]. For example, one can examine whether electoral systems

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[1]I also propose using additional voting measures of behavior such as the proportions of votes a legislator deviated from the majority position of the party (Cowley and Norton, 1999; Gaines and Garrett, 1993; Leston-Bandeia, 2009; Tavits, 2009) and additional measures of cohesion that take into account absences and abstentions (Hix, Noury and Roland, 2005; Landi and Pelizzo, 2006).

and intra-party candidate selection procedures influence legislators' assignments to national or targeted committees (Crisp, Escobar-Lemmon, Jones, Jones and Taylor-Robinson, 2009; Stratmann and Baur, 2002).

Interestingly, when Crisp et al. (2009) examined the influence of selection processes on committee assignments in Argentina, Venezuela, and Costa-Rica, three CLPR systems, the authors found in Venezuela a weak, non-significant relationship between selection processes and committee assignments, whereas in Costa-Rica and Argentina "distinguishing between decentralized candidate selection procedures and other means of selecting nominee failed to show any effect on committee assignments" (Crisp et al., 2009, 46). These null results might be explained in light of the results presented in this dissertation and my claim that under restrictive electoral systems such as CLPR, the effect of selection processes on legislators' behavior should be minimal.

Scholars can also examine Private Member Bills initiation as that factor can function as an additional tool through which legislators differentiate themselves from their co-partisans and cultivate a personal reputation (Akirav, 2010; Blidook, 2010; Crisp et al., 2004; Rahat and Sheafer, 2007; Shomer, 2009). Similarly, representatives might use parliamentary question time to enhance their personal traits and reputation and to provide constituency service (Shomer, 2009; Soroka, Penner and Blodook, 2006). Future research will examine whether these additional measures of behavior corroborate my theoretical account presented in this dissertation.

This dissertation's findings encourage political scientists to start thinking and theorizing about the complex interactions of different institutions and their combined

effects on legislators' behavior. I argued that electoral systems and candidate selection procedures conditionally structure the incentives and institutional environments within which legislators operate. Theorizing and trying to empirically test only the separate distinct effects of each institution can lead researchers to find null results. This might explain the literature's mixed empirical support for the separate effect of electoral systems theorized by Carey and Shugart (1995) and for the hypothesized separate effect of selection processes articulated by Rahat and Hazan (2001).

I propose continuing theorizing and examining the complex institutional context within which legislators operate. As the results from this dissertation demonstrated, the conditional effect of elections and selection in itself can vary with the *Regime Type* a country has. Thus, in the future I would theorize and empirically test this complex relationship.

Moreover, while the comparative literature practically ignores the influence of parliamentary procedures on legislators' behavior, I propose examining the separate effect of intra-cameral procedures on legislators' behavior and the effects when combined with elections and selections. Not only do cameral procedures provide agenda control for the majority party (Cox and McCubbins, 1993, 2005; Doring, 1995; Doring and Hallerberg, 2004) but they also provide rules and regulations that either restrict individual parliament members and strengthen party leadership or empower the individual rank and file vis-à-vis party leadership. In so doing, intra-cameral procedures help to shape the incentives faced by legislators to adhere to the party line. For instance, when party leaders control committee chairmanship, legislators will tend to behave in a more party-centered manner and dissent less (Kam, 2009). Intra-cameral procedures also structure and constrain the legislators' capabilities. For

example, cameral procedures can limit individual members' rights to initiate legislation or amendments, or they distribute resources such as speech time and question time to parties and not to the individual member. These restrictive procedures and regulations will limit and circumvent unbridled incentives for personal vote-seeking incentives that the election processes and selection processes might produce. TTherefore, my future research will classify intra-cameral procedures and will examine their separate and combined conditional effects on legislators' behavior.

Therefore, my future research will classify intra-cameral procedures and will examine their separate and combined conditional effects on legislators' behavior. Only by precisely theorizing and empirically examining the intricate institutional environment within which legislators operate can scholars learn about the incentive and constraints legislators face and can scholars understand legislators' behavior. Thus, understanding representation and democracy in general requires researchers to carefully construct micro-level foundation theories that mimic the complex reality legislators face.

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