

# Electoral systems and programmatic parties: The institutional underpinnings of parties' ideological cohesion \*

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## Abstract

What are the incentives for party ideological cohesion created by electoral systems? While conventional wisdom suggests candidate-centered electoral systems would reduce cohesion and encourage less programmatic parties, little evidence has been found to support this expectation either in cross sections or cases studies of institutions in new democracies. In this paper, we argue that the answer lies in whether party leaders have incentives to recruit for cohesion rather than relying on sheer discipline in producing voting unity. We present a formal model to distinguish between the control over rank held by leaders in open list (OLPR) and closed list (CLPR) electoral systems. Under OLPR, vote contributions are transparent, which gives members leverage against the leadership in resisting discipline. In CLPR, the contribution of the member to the list's vote is not directly observable and therefore allows lower costs to discipline. We show that, because discipline is costlier in OLPR, leaders that value voting unity should recruit for cohesion. Meanwhile, in CLPR, leaders can achieve unity by relying on discipline. We conclude that, to the extent that programmatic parties emerge from cohesive parties, OLPR offers better prospects for programmatic party development than does CLPR.

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# 1 Introduction

A large literature has emphasized the effect of electoral systems on the internal politics of political parties. Generally, literature suggests that candidate-centered electoral systems create incentives to cultivate a “personal vote” (Carey and Shugart, 1995; Katz, 1985). This is often taken to imply that such electoral systems should produce parties that have more difficulty in enforcing party discipline and will be associated with less unified parties (Carey, 2009; Hix, 2004; Raunio, 2007; Mejía-Acosta et al., 2006), although such a relationship is not consistently observed (Sieberer, 2006; Santos, 2007; Desposato, 2006). One type of intuition underlying such expectations is the notion that the electoral system will undermine ideological cohesion by increasing the diversity of preferences within the party, which in turn undermines a party’s focus on broad programmatic policies. As Kitschelt and Smyth (2002) put it, “party cohesiveness is least likely in multimember districts that use preferential votes to choose individual candidates on party lists;” and, further, “candidate-centered competition opens the door to clientelist party formation.” Scheiner (2006) similarly states that “where institutions encourage personalistic competition, coherent and complex programmatic parties are slow to develop because of the differing, personal agendas of their members.”<sup>1</sup> Work emphasizing a link between personalized electoral systems and unity or cohesion has also led to numerous further conclusions regarding politics and policy outcomes (e.g. Golden and Chang 2001; Bowler et al. 1999; Colomer 2011; Picci, Golden and others 2007; Lyne 2008; Crisp et al. 2004; Cox and McCubbins 2001).<sup>2</sup>

Taken together, extant literature implies two related pieces of received wisdom. First, the

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<sup>1</sup>This is not to say that authors who describe these expectations treat these as deterministic relationships, as these authors and many others in the literature routinely point out the important caveats. Still, even the most modest claims about electoral systems typically suggest that party-oriented systems should be, on average, more associated with incentives to form programmatic parties, if any systematic difference is expected.

<sup>2</sup>Some literature also suggests that closed-list systems have negative implications for policy, particularly with regard to encouraging corruption due to the lack of accountability for individual politicians (Kunicova and Rose-Ackerman, 2001; Persson, Tabellini and Trebbi, 2003). Indeed an array of positive outcomes of personal vote seeking are found throughout the literature, such as in gender representation (Kunovich, 2012). However, this literature does not directly challenge the conventional implications with regard to ideological cohesion, even while pointing to advantages of personalized systems.

higher discipline costs associated with candidate-centered electoral systems should lead to less behavioral unity, interpreted as voting with the party (e.g. Carey 2007; Hix 2004; Carey 2008). Second, contexts where party unity is lower—or more costly to obtain by disciplining members—should also be associated with lower ideological cohesion, meaning more heterogeneity in the policy preferences among party members (e.g., Kitschelt and Smyth 2002). These arguments—explicitly or implicitly—lead to the conclusion that the party advantages in disciplining legislators in party-oriented electoral systems should facilitate ideological cohesion and, by extension, provide an advantage in the development of more programmatic parties. However, there is little systematic evidence that, in practice, party-centered rules have encouraged more cohesive, more ideological or more programmatic parties (Jones, 2005; Mejía-Acosta et al., 2006).

Here, we aim to reconcile the inconsistency between the empirical record and conventional expectations. We argue that, if discipline is costly, parties seeking unity should respond by increasing cohesion through the recruitment process (Gallagher and Marsh, 1988). The fact that behavioral *unity* is more difficult for parties to achieve in a candidate-centered environment must be disentangled from preference *cohesion* (Hazan, 2003, 2013), particularly for purposes of understanding the incentives for programmatic parties. This is because parties may have the same level of unity in parliamentary voting behavior and yet vary dramatically in their degree of underlying ideological cohesion. Yet, it is cohesion in policy preferences and not unity in legislative voting that reflects the degree to which members of parties share a common ideology (as we expect in programmatic parties).

In this paper, we focus on the context of parliamentary regimes, where unity is expected to be consistently paramount. We first describe some aggregate patterns at the party level that show that candidate-centered electoral systems, such as ones with open lists, are not systematically associated with parties lacking programmatic qualities. We then describe the experiences of two newer parliamentary democracies in Europe with contrasting electoral systems, Poland and Bulgaria, that exemplify deviations from conventional expectations.

Poland adopted one of the most candidate-centered electoral systems in the region, while Bulgaria had one of the most party-centered. Yet, the former has been much more associated by scholars as having developed ideologically cohesive parties in the early years of democracy. To help explain this lack of empirical support for conventional expectations, we present a model in which parties seeking unity are able to recruit for cohesion in order to offset discipline costs. Contrary to conventional expectations, we argue that, and under realistic assumptions about party behavior, personalized electoral systems actually encourage party cohesion. We use this formal model to assess the role played by control over party list rank—the priority with which party members enter the legislature—in channeling incentives for party development. The amount of information about a party member’s clout—his electoral importance for the party—available to the party leadership as well as to the member himself varies across electoral systems.

Key to our argument is that under open-list proportional representation (OLPR), where individual electoral performance determines a candidate’s rank on the party list, exactly how many votes each member brings to the party list is transparent. This information can give members leverage against the leadership to avoid sanctions for violating voting discipline. In closed party lists (CLPR), although the party benefits from having popular members, no direct measure exists of a party’s dependence on a specific member’s electoral strength. These legislators cannot, therefore, directly use their own vote share as leverage against party discipline. We show that because discipline is costlier in OLPR if leaders value voting unity (as we expect they will, especially in parliamentary regimes), these parties are forced to use recruitment to improve party cohesion. Meanwhile in CLPR, leaders can achieve the same level of voting unity by relying sheerly on discipline. To the extent that programmatic parties are more likely to form on the basis of cohesive parties, our model suggests that OLPR would offer better prospects for programmatic party development than CLPR, all else equal. This, we suggest, is more consistent with the empirical record than conventional accounts that suggest open-lists would lead to less party ideological cohesion.

## 2 Electoral systems and programmatic parties: Some empirical patterns

Despite the widespread tendency to associate personalized electoral incentives with non-programmatic parties, the empirical record does not provide systematic evidence of this pattern. In general, directly measuring the ideological cohesion of parties across countries is not straightforward.<sup>3</sup> Here, we consider two indirect operationalizations of the concept of programmatic parties and their relationship with candidate-centered electoral rules. We focus here on European parliamentary regimes, which allows us to hold constant the effects of regime type on party goals.<sup>4</sup>

First, we use the Chapel Hill Expert Survey (CHES) (Bakker et al., 2015), which provides “left-right” placement scores for parties in Europe. One way that the degree or consistency of a programmatic reputation can be inferred from these data is by making use of the variance across expert respondents. If experts vary greatly in their perception of a party’s policy positions, the party is less likely to have maintained a consistent policy reputation, whether due to diversity in membership, inconsistent policy positioning or non-programmatic linkages with voters. If a party is more programmatic—composed of members with a consistent vision for their policy positions—we may expect less variance in how experts perceive their location. Below, we regress the standard deviation of CHES expert party policy responses for each European party’s left-right position on a dummy variable capturing whether a candidate-centered electoral system is in place. We add a dummy variable to control for whether the party is in an Eastern European country, because these cases are thought to be less programmatic on average (Kitschelt, 1995; O’Dwyer, 2004; Kopecký, 1995). A regression

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<sup>3</sup>For instance, legislative behavior, especially roll call voting, results both from both preferences and party factors and does not easily compare across countries

<sup>4</sup>Regime type distinctions are also known to affect the organization of political parties in ways we aim to separate from this analysis. Presidential regimes, for instance, can directly create incentives for legislators to depart in their voting from the legislative party leadership Carey (2008). In general, separation of origin and survival strongly affects the electoral foundations for party unity in presidential regimes (Samuels and Shugart, 2010).

Figure 1: Expert Survey Variance of Party Left-Right Positions: Predicted Values by Electoral System

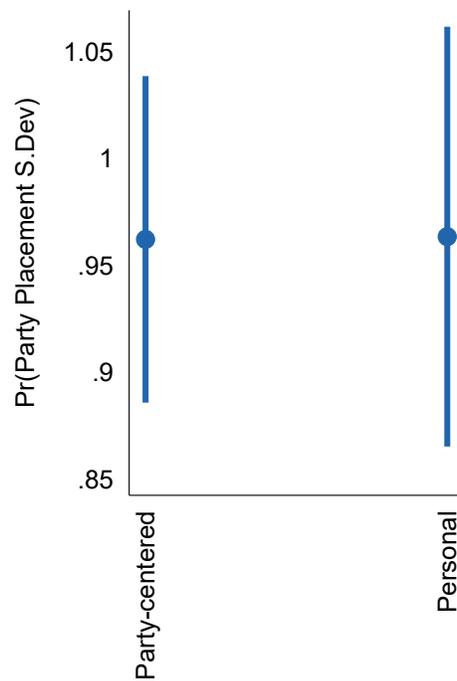


table can be found in the appendix. Figure 1 shows the marginal effects of a candidate-centered electoral system on the standard deviation of the expert responses for each party.

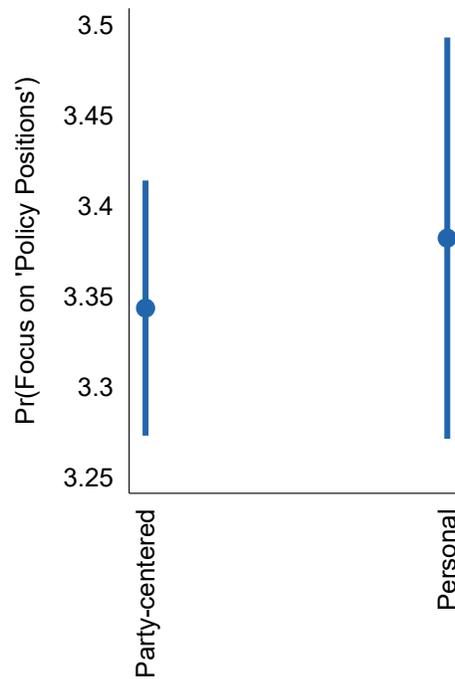
As seen in the figure, parties in party-oriented electoral systems actually produce no less variance in the expert perception of locations of party policy positions than parties in candidate-oriented electoral systems.

As this measure is especially indirect, we next make use of an expert survey directly focused on party linkages recently conducted by Kitschelt and Kselman (2013). This survey, the Democratic Accountability and Linkages Project, contains two questions directly related to whether parties are programmatic. In the first of these, the survey asks specifically whether parties mobilize support using their policy positions.<sup>5</sup>

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<sup>5</sup>The question asks respondents to indicate “the extent to which parties seek to mobilize electoral support by emphasizing the attractiveness of the party’s positions on policy issues.” The choices range from “Not at all” to “To a great extent.”

Figure 2: Expert Survey Party Emphasis on Policy Positions: Predicted Values by Electoral System



As seen in Figure 2, party-centric systems are not more associated with parties using policy-focused appeals than parties from personal-vote oriented systems.

While none of these patterns should be taken as conclusive or substantively large, these illustrations do suggest that there is at least no strong tendency for candidate-centered electoral systems to be associated with characteristics of non-programmatic parties such as ideological ambiguity or emphasis on non-ideological mobilization.

## 2.1 Qualitative accounts of programmatic parties in new democracies

New democracies provide useful information on the pathways taken by countries that have adopted different electoral systems. As the new parliamentary democracies of Eastern Europe emerged, the literature on these cases linked the lack of programmatic parties to various

legacies (Bustikova and Kitschelt, 2009; O’Dwyer, 2004). Eastern European party systems tended to begin with a “regime divide” cleavage separating the communist successors from an ideologically disparate group of former dissidents and pre-communist parties (Kitschelt, 1999; Grzymala-Busse and Innes, 2003). This regime divide was accompanied with high volatility and weak party organizations, especially for parties based on former dissident movements (Grzymala-Busse, 2002; Ishiyama, 2001, 1999, 2000, 1997). Originally united by anti-communism, policy issues did not begin to divide these parties and their electorates until after the decommunization project was completed (Lawson, Rmmele and Karasimov, 1999). In some countries, such as Poland, the Czech Republic, and Hungary, internal splits among anti-communist movements eventually led to a crystallized party system (Lewis, 2001); in others, such as Bulgaria and Romania, the polarized system gave way to cacophony of populist, clientelistic, and ethnicity-based parties without clear policy preferences on more than one issue.

This literature does not indicate that party-centric rules enhanced the programmatic tendencies of these countries’ party systems. In fact, countries where party unity is expected—such as those with closed-list PR—have often not become associated with programmatic parties. Contexts with personal vote incentives—as under open-list PR—have in many cases developed parties that are viewed by observers as mostly ideological in nature.

Bulgaria, for instance, initially adopted party-centered electoral institutions that one might expect to encourage programmatic parties and counteract historical legacies of patrimonialism. Kitschelt (1999) suggested that “in the long run, the closed-list system of proportional representation will create incentives for programmatic party competition and thus counteract the early influence of earlier legacies...making the party and not the candidate the focus of competition.” However, case literature does not suggest that these institutions ultimately proved advantageous in promoting programmatic qualities among Bulgarian parties. Lewis (2001) singles out Bulgaria—along with another closed-list system, Romania—as a party system in constant flux for many years after the transition to democracy.

Karasimeonov (2013) describes the factions that grew out of the Bulgarian opposition as “clientelistic circles rather than authentic parties, with such high levels of diversity that they were more or less likely to disintegrate once they achieved their primary objective.”<sup>6</sup> Bulgaria also experienced the phenomenon of “flash parties,” where new parties garnered close to half of the popular vote (White, Lewis and Batt, 2013). According to Spirova (1989), for the most part, “...Bulgarian parties tend to be strongly elitist and often lack specific and consistent principles, ideas, and policies” (407). Parties based on former dissident movements focused on anti-communist platforms that reinforced the regime divide between successor communist and former dissident elites. Yet, despite Bulgaria’s lack of programmatic parties, the parties that won parliamentary seats voted in a highly unified fashion (Karasimeonov, 2013).

The development of Poland’s party system began with the fragmentation of the Solidarity anti-communist movement into numerous small parties. Since these parties still succeeded in winning seats (Kaminski and Nalepa, 2004), this produced high volatility (Markowski, 2001). After a spectacular defeat in this context, a large umbrella party uniting all post-Solidarity groups came to power in 1997 after winning a plurality of the vote. In contrast to that of Bulgaria, Poland’s party system operated since 1991 under open-list PR, making the personal vote important to electoral success. At the same time, the post-dissident coalition had considerable difficulty in maintaining unity. Yet, despite this seeming instability in the early party system, most scholars agree that Poland’s party system became one of the more programmatic in the region (Markowski, 2001; Gwiazda, 2009; McMenamin and Gwiazda, 2011), with a great deal of ideological cohesion among party members (Borz, 2009). When new parties based on the former post-Solidarity caucuses formed in opposition to each other on policy grounds, the cleavage separating these two sorts of parties corresponded to the major policy divide separating the Polish public, especially divergent views of socio-cultural

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<sup>6</sup>According to Kolev (2014), non-programmatic citizen-party linkages in Bulgaria have taken a variety of forms ranging from the use of voucher privatization to reward managers of state owned enterprises who are parties’ supporters to the practice of paying utility bills of families forming parties’ electoral bases. In particular, the ethnic vote is often organized along clan and family lines and connected to such clientelist linkages.

issues, such as gay rights, abortion, and the role of the state in issues of morality.

In sum, despite Poland’s personalized electoral system, which is usually expected to weaken parties, there is consensus that its party system has evolved a great deal of programmatic consistency. Meanwhile, Bulgaria, with its party-oriented electoral system, produced parties generally perceived as much less programmatic than others in the region.

In the argument presented below, we suggest why these patterns should not be surprising. When the effects of electoral systems are examined through the lens of the recruitment incentives resulting from individual members’ intraparty leverage, it becomes apparent that we may not have strong reason to expect countries with electoral systems like Poland to develop especially ideologically incohesive parties or countries with electoral systems like Bulgaria to have any advantage in avoiding this.

### **3 Electoral systems and information about MP’s “clout”**

Key to our argument below is that electoral systems differ in how much information they generate about an MP’s electoral importance for the party—which we will refer to as “clout”—is available to the party leadership as well as to the member himself. Under OLPR, it is common knowledge how much each member contributes to the party list. This common knowledge may become currency for extracting permission to violate party discipline. As an illustration of the meaning of high clout in parliamentary voting, a prominent member of Poland’s Socialist Left Alliance (SLD), Jerzy Wenderlich, explains a situation in which the President asked 15 MPs to vote against their party:

*“Normally, disobedience would result in having one’s name removed from the list. However, among the 15, there were about 7 who were so-called ‘steam engines’ and removing them would result in losing considerable votes”* (Wenderlich, interview 2011)

By contrast, a freshman from the Civic Platform (PO) party with low clout, Grzegorz

Karpinski describes an early experience with party discipline:

*“In a vote to appoint constitutional court justices, the party urged its members to vote against my law school advisor. I asked the caucus whip for an exemption. It was denied even though it would not have changed the final outcome.”* (Karpinski, interview 2010)

Beyond the direct benefits from voting unity on specific issues, allowing MPs exemptions from votes can set a dangerous precedent. Yet, parties often cannot afford to impose discipline on high clout MPs.

In other words, under OLPR, elections offer candidates the opportunity to demonstrate their popularity and how dependent the party is on their contribution. In closed-list PR systems, although the gains to the party leadership from putting popular members on the list are proportional to their popularity, the electoral results do not provide a measure of how much a list’s vote share can be attributed to any specific member’s popularity. Since her contribution to the list is obscured, a member cannot use it as leverage against party discipline. In other words, what sets CLPR apart from OLPR is not that candidates cannot drive the party vote, but rather that they lack an individual vote share that *directly* provides a basis for clout within the party; this, in turn, makes it costly to impose party discipline.<sup>7</sup>

It is useful to contrast both forms of party-list electoral systems with the widely studied case of single member district plurality systems (SMD), where yet another dynamic is present. If party leaders hold control over nominations (as they do in the UK, but not in the US), it is sufficient for the party’s electoral goals that the candidate is capable of winning a plurality. From the point of view of the leadership, members who significantly exceed that threshold are no more valuable than others that won their district and may even be perceived as less critical to the party than members in “marginal” districts. Indeed, to the extent that their

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<sup>7</sup>To be clear, in some instances a candidate under CLPR may be obviously driving the votes of the rest of the list and could therefore exploit such popularity in a manner similar to what we discuss in OLPR situations. Our main point here is that this is not facilitated directly by the CLPR electoral system itself, as it is under OLPR.

Table 1: Nature of costs and benefits of recruitment

Electoral Institution	Discipline Costs	Gains from popularity
SMD	Fixed	Fixed
CLPR (large M)	Fixed	Proportional
OLPR (large M)	Proportional	Proportional

preferences are at odds with the leadership’s, “safe” members could especially become a liability for party discipline. Insofar as members would be replaced with substitutes capable of carrying the district, disciplining members in such SMD systems is not costly.

The above points are summarized in Table 1, which reflects the trade-off that emerges in OLPR systems compared to SMD or closed list systems: although OLPR allows leaders to reap all the benefits from recruiting popular members, as the votes they secure from the electorate translate directly into party votes, they also absorb all the costs of getting such popular members to toe the line. The model we present in section 4 attempts to capture this trade-off and evaluate its consequences for the emergence of programmatic or ideologically cohesive parties.

As Table 1 suggests, our discussion of list systems pertains to high district magnitude cases. Note that low district magnitude cases ( $M=2$  or  $3$ ) would converge to be more similar to the SMD dynamic. In such cases, only the top (under CLPR) or most popular (under OLPR) candidates effectively compete for legislative seats. However, beyond district magnitude of 3, the three discrete cases from Table 1 provide separate ideal types that generalize to most situations.

## 4 The Model

The goal of our game theoretic model is to isolate the role played by electoral institutions in channeling incentives for a party’s ideological cohesion. In particular, we want to address the question of when party leaders have incentives to rely on cohesion to produce voting unity

instead of relying on sheer discipline. We model and exploit the fact that there are two ways of achieving voting unity: one uses discipline and it modifies the incentives of individual members. The second relies on proximity between preferences of members and policies introduced by the party leadership. Our model thus focuses on the party leader’s incentives for setting policies and replacing MPs to reduce the distance between MP preferences and the leader’s policy proposals, therefore producing unity at once with ideological cohesion. The reason we shift attention towards Leader’s endogenous agenda setting powers is that weakened control over rank does not allow leaders to discipline members under OLPR as easily as can under CLPR. Our answer hinges on distinguishing between the control over rank held by leaders within list systems, with the main distinction drawn between open and closed lists. That is, these differ crucially in terms of the power leaders have to determine which members obtain seats won by the party.

The core idea is an interaction between the party leadership and a party member, where the leaders first proposes a policy, and await the member’s response. After the member votes “yae” or “nay” the outcome is implemented and if the member disagrees with the leader, the leader has an opportunity to replace him. Following replacement, the interaction repeats. Retaining a first period member conveys a benefit to the leader—the member’s clout. Voting against the leader is associated with an electoral penalty, which is increases with the leader’s control over rank. High control over rank will correspond to closed list PR systems and low control over rank will correspond to open or flexible list PR systems. That act of replacing an MP is associated with uncertainty, as we want to model the recruitment of new party members by the leaders in circumstances in which leaders are uncertain about the ideological leanings of their membership.

## 4.1 Players

In the model, there are three players: the Leader  $L$ , characterized by an ideal point  $l = 0$ , a member  $M_i$ , with ideal point  $m_i \in [-\frac{1}{2\pi}, \frac{1}{2\pi}]$ , and a member  $M_j$ , with ideal point  $m_j$ . Member

$M_i$ 's ideal point is fixed. Unless the game ends after the first stage, as explained below, member  $M_j$ 's ideal point is drawn by Nature in the recruitment stage of the game from a uniform distribution over the interval  $[-\frac{1}{2\pi}, \frac{1}{2\pi}]$  with mean 0, described by the cumulative density function  $F$  as follows:

$$F(x) = \begin{cases} 0 & \text{if } x < -\frac{1}{2\pi}; \\ \pi x + \frac{1}{2} & \text{if } x \in [-\frac{1}{2\pi}, \frac{1}{2\pi}]; \\ 1 & \text{if } x > \frac{1}{2\pi}. \end{cases} \quad (1)$$

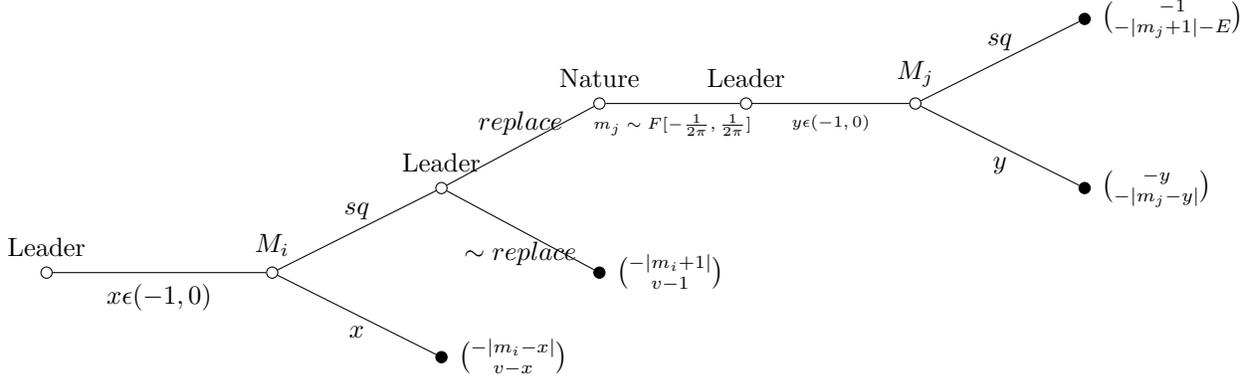
And the corresponding PDF is given by:

$$f(x) = \begin{cases} 0 & \text{if } x < -\frac{1}{2\pi}; \\ \pi & \text{if } x \in [-\frac{1}{2\pi}, \frac{1}{2\pi}]; \\ 0 & \text{if } x > \frac{1}{2\pi}. \end{cases}$$

## 4.2 Strategies and Timing

The game has six stages. In the prehistory of the game, Nature has drawn a member,  $M_i$  and announced his ideal point to the remaining players in the game. In the first stage of the game,  $L$  chooses a policy  $x \in (-1, 0)$  that serves as an alternative to the exogenously given status quo,  $sq = -1$ . Following  $L$ 's decision, in the second stage,  $M_i$  decides whether to vote for the policy selected by  $L$  or for its alternative. If  $M_i$  votes with  $L$ , the game ends. If  $M_i$  votes against  $L$ , the policy  $sq$  is implemented and in stage three,  $L$ , decides whether to retain  $M_i$ , which ends the game, or to replace  $M_i$  with  $M_j$ , leading to the fourth (recruitment) stage of the game, in which Nature draws an ideal point for member  $M_j$  from the uniform distribution  $F$  over the interval  $[-\frac{1}{2\pi}, \frac{1}{2\pi}]$  with mean 0. The draw is revealed and in the fifth stage  $L$  selects a policy  $y \in (-1, 0)$ . In the sixth and final stage of the game,  $M_j$  chooses, between the  $sq$  and  $y$ . The game tree is represented in Figure 3 above.

Figure 3: 2-stage Recruitment Game



The leader's strategy consists of a triple  $(s_L^1, s_L^2, s_L^3)$ , where  $s_L^1$  is a policy  $x \in (-1, 0)$ ;  $s_L^2$  is a function that assigns one of two actions: *replace* or *not replace* to any combination of policy choice and each of two actions that  $M_i$  could take:  $s_L^2 : (-1, 0) \times \{sq, x\} \rightarrow \{rep, \sim rep\}$ ;  $s_L^3$  is a policy  $y \in (-1, 0)$ , which is function of the ideal point of  $M_j$ , the new member drawn in the recruitment stage. Thus  $s_L^3 : (-\frac{1}{2\pi}, \frac{1}{2\pi}) \rightarrow (-1, 0)$ .  $M_i$  and  $M_j$  have two actions each: they can vote with the leader or against him, given any leader's proposal. Their strategy sets are sets of all the partitions of the policy interval  $(-1, 0)$  into an acceptance region and a rejection region:

$$S_M = \{A \subset (-1, 0) : z \in A \rightarrow M \text{ votes for } z\}.$$

Here,  $A$  represents the set of proposals that the member will accept.

### 4.3 Payoffs

The utility functions of  $L$ ,  $M_i$  and  $M_j$  depend on the proximity of the players' ideal points to the policy alternative that is implemented as a result of the game as well as three parameters representing information about clout, the effects of electoral systems on rank control, and party members' career concerns. We discuss each in turn below:

$v \in (-1, 1)$  represents the extent to which  $M_i$ 's vote share (the share of votes  $M_i$  received from the party list, which is how we measure  $M_i$ 's 'clout') is above or below average.  $v < 0$

represents ‘low-clout’ types, whereas  $v > 0$  corresponds to ‘high-clout’ types.

In CLPR systems, members have no leverage against the leadership and  $v = 0$  for all existing and potential members. In such systems, because their votes are not directly contributed to the party, members can be interchangeable. As a result, members are not able to use popularity as leverage against the leader as in OLPR. Under OLPR, on the other hand, to reflect the variation in party members’ leverage over the leadership,  $v$  can assume any value between  $-1$  and  $1$ .

Moving on to the remaining parameters,  $E > 0$  represents the Leader’s control over rank, that is, the extent to which the party leadership controls the priority with which members are awarded seats from the party list. Under OLPR, this control is very low. Under CLPR, depending on district magnitude (the limiting case of which is SMD), it is considerably higher. The higher  $E$  is, the greater the leader’s control over rank.

Finally,  $P > 0$  represents the career concerns of party members or the extent to which they want to remain in the party, even following a disagreement with the leader. For members with high values of  $P$ , remaining in the party is worth more than for members with low values of  $P$ . This captures the potentially wide variation in the ideological attachments of parliamentarians, even among members of the same party. In other words,  $P$  captures how willing MPs are to sacrifice their commitment to their own ideology for the sake of the party line.

A useful intuition for how low career concerns contrast with high career concerns is provided by the following quote from the late Izabela-Jaruga-Novacka, a Polish MP from Labor Union (UP), the coalition partner of the ex-communist Democratic Left Alliance (SLD):

*Some of the MPs [in SLD] could just as easily be in parties 180 degrees in the opposite direction. These parties have no ideological backbone. In the entire Sejm, there are probably fewer than twenty people who cannot switch parties. They are respected by the opposition, but because of the clarity of their positions, they*

*cannot switch. Contrast this with a vast majority of my colleagues from SLD, who during SLD's crisis, without hesitation accepted SRP's offers to switch because it gave them a better shot at a legislative seat in the upcoming elections.*

Jaruga-Nowacka describes a situation in the early years of the Polish Parliament in which most MPs have low values of  $P$  (they could easily switch parties), while some have high values of  $P$  (due to their ideological commitments, switching parties is less feasible for them).

The payoffs in Figure 3 have been listed at the terminal nodes, following the order with which players take action. For nodes terminating after the second and third stage of the game, the first listed payoff is that of the Leader and the second is that of  $M_i$ . For nodes terminating in the 6th stage of the game, the first payoff is that of the Leader and the second is that of  $M_j$ .

Although it is difficult to include this information in Figure 3 above, the payoff to  $M_i$  from being replaced is  $U_{M_i}(\text{replaced}) = - | m_i + 1 | - P$ , which is negative in the distance between his ideal point and the status quo and negative in the extent to which  $M_i$ 's career concerns are tied to the party he is being dismissed from as a result of insubordination. Note that distance is measured from  $sq = -1$  because since the leader did not receive backing from the MP, the outcome reverts to the status quo.

Since this is a game of complete (albeit imperfect) information, we can solve for subgame perfect equilibrium by backward induction after taking into account the Leader's expected utility from replacing  $M_i$  using standard probability calculus. In the analysis below, we start with the second parliamentary stage and the choice of  $M_j$ . Next, we solve for the optimal policy choice of the leader and his optimal recruitment rule.

To preview the results, in what follows, we will break down our solution into two cases. The first case, corresponding to closed list PR cases, is for when control over rank,  $E$ , is large and by the definition of CLPR,  $v$ , that is clout, is equal to zero. In this case, we will show that  $M_j$ , the second period member will prefer to vote in favor on the Leadership's ideal policy. Consequently,  $M_i$ , the first period member has no leverage to reject proposals,

because she can be replaced. In contrast, when control over rank,  $E$ , is not too large (fitting the definition of OLPR or FLPR) and vote share can be positive or negative—corresponding to high and low clout, respectively—the second period member,  $M_j$  can commit to rejecting some proposals, which forces the Leader to compromise. This, in turn, weighs on the first-period interaction, because  $L$  now anticipates that replacing the first period member will result in uncertain future outcomes. Furthermore, this gives the first-period member,  $M_i$  leverage. The net consequence of this first period interaction is that  $L$  compromises in his first-period proposal by moving closer to the member’s ideal point. Before separating out these two cases however, we solve for  $L$ ’s optimal action in the second parliamentary stage. The parameter conditioning this optimal action is  $E$ , control over rank. The solution of this subgame will serve the purpose of breaking down our analysis into these two subcases, corresponding to CLPR and OLPR and enabling us to compare the effects of both institutions for ideological cohesion.

#### 4.4 Solving for the $L$ ’s optimal action in the second parliamentary stage

In the second parliamentary stage,  $M_j$  will support  $L$ ’s proposal  $y$  iff:

–  $|m_j + 1| - E \leq -|m_j - y|$ , that is, when his payoff from voting against the leader and bearing the consequences reflected in lowering his rank is lower than his payoff from supporting the leader (which could involve voting for legislation distant from his ideal point). This is equivalent to  $E \geq |m_j - y| - |m_j + 1|$ . Solving this requires the consideration of three cases: (1)  $m_j > -\frac{1}{2}$ , (2)  $-1 < m_j \leq -\frac{1}{2}$ , and (3)  $m_j \leq -1$

1.  $m_j > -\frac{1}{2}$

In this case,  $M_j$  support the leader’s ideal point, 0 for any value of  $E$ .

2.  $-1 < m_j \leq -\frac{1}{2}$

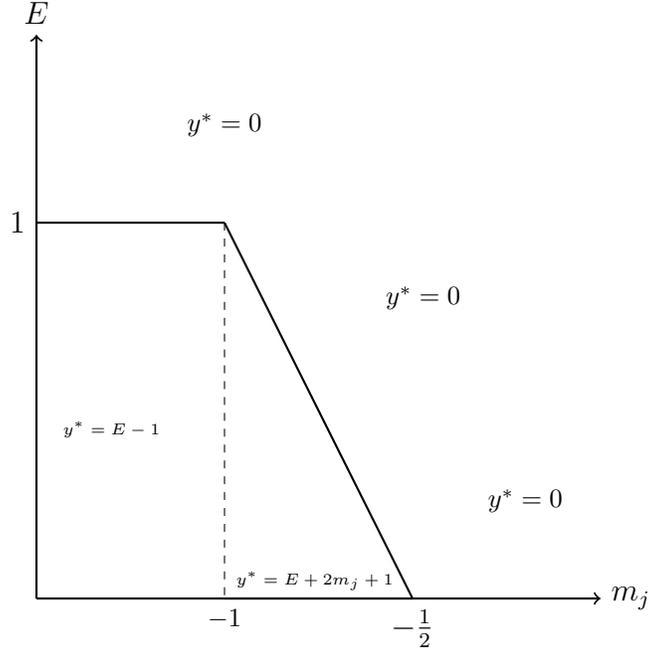


Figure 4: L's optimal strategy in second parliamentary stage

In this case, if  $E \geq |m_j - 0| - |m_j + 1|$ , that is, if  $E \geq 2m_j - 1$ , the leader may still get  $M_j$  to support his ideal point, 0. However, if  $E < 2m_j - 1$ , to get  $M_j$  to accept the leader's proposal  $y$ ,  $L$  must propose  $y^*$  that solves

$$E = |m_j - y^*| - (m_j + 1), \text{ that is, } y^* = E + 2m_j + 1.$$

### 3. $m_j \leq -1$

In this case, if  $E \geq |m_j| - |m_j + 1|$ , that is, if  $E \geq 1$ , the leader can still choose his ideal point,  $l$ , and have  $M_j$  support it. However, if  $E < 1$ , to get  $M_j$  to accept the leader's proposal in the second parliamentary stage,  $L$  must propose  $y^*$  that solves

$$E = |m_j - y^*| - |m_j + 1|, \text{ that is, } y^* = E - 1.$$

Figure 4 summarizes  $L$ 's optimal strategies in the second parliamentary stage as a function of the location of  $M_j$ 's ideal point,  $m_j$ , and the leader's control over rank,  $E$ .

We see that for MPs with ideal points close to the leader’s ideal point, which is set at 0, the control over rank does interfere with the leader’s ability to propose his ideal point and have it accepted in equilibrium. For members with preferences so distant from the leader that they favor the status quo over the leader’s ideal point, the optimal strategy of the leader depends on how the electoral law allocates control over rank. When the electoral law gives leaders considerable control over rank (so that  $E > 1$ ), the leader can propose his ideal point and have it accepted. But for electoral laws where the leader has little control over the priority with which candidates from the party list win seats, the leader must propose a compromise solution ( $y^* = E - 1$ ) to gain  $M_j$ ’s support. For ideal points of  $M_j$  between the status quo and the midpoint between the status quo and the leader’s ideal point,  $-\frac{1}{2}$ , a clear trade off between the preferences of  $M_j$  and control over rank is visible: for electoral laws with control over rank higher than the thick line in Figure 4 (corresponding to the function  $E = -2m_j - 1$ ), the leader can propose and have his ideal point supported, but for electoral laws where control over rank is below that line, he has to propose  $y^* = E + 2m_j + 1$  in order for the MP to back his proposal.

Figure 4 shows that for electoral systems where leaders have lower control over rank, the ideological gap between the leadership and the membership is consequential for party cohesion. This concludes the preliminary step in our analysis, which allows us to separate the case of CLPR from OLPR. In the following subsections, we will be moving up the game tree and solving for equilibrium strategies in the first parliamentary stage and recruitment stage to solve for the leader’s optimizing actions in anticipation of the equilibrium responses in the subgames.

#### 4.5 Solving for L’s optimal recruitment strategy

Based on results presented in Figure 4 above, we consider two cases: (1)  $E > 1$ , which we interpret as corresponding to high control over rank, as is in CLPR systems, and (2)  $E \leq 1$ , which we interpret as corresponding to low control over rank, as in OLPR systems, and to

some extent, flexible list systems. In solving for the Leader’s optimal recruitment strategy, we first consider the simpler case of high rank control.

### 1. $E > 1$ (high control over rank, as in CLPR)

Recall that in CLPR,  $\forall i, v = 0$ . That is, no member can leverage his popularity against the leader, because even though some members are more popular than others, there is no reliable metric of “clout.” Thus, there is nothing that a member can trade off against supporting the leader’s ideal point.

Since in the last stage the leader always gets his ideal point accepted by  $M_j$ , any member  $M_i$  drawn in the first recruitment stage knows he will be replaced if he does not accept the Leader’s proposal. And recall, the leader gets his ideal point accepted in the final stage, so there is not reason for him to propose  $x^*$  different from 0. Thus,  $M_i$  has to compare his utility from the status quo and being replaced with his utility from the Leader’s ideal point (and being retained). That is,  $M_i$  will accept  $L$ ’s first stage proposal,  $x^* = 0$  iff:

$- | m_i - 0 | \geq - | m_i + 1 | - P$ . This means that as long as  $P \geq 1$  for  $M_i$  with ideal point  $m_i \leq -1$  or  $P \geq -2m_i - 1$  for  $M_i$  with ideal point  $m_i \in (-1, -\frac{1}{2})$ , member  $M_i$  will accept  $L$ ’s proposal  $x^* = 0$  in the first parliamentary stage and be retained. We can conclude that in systems with high rank control, as professional career concerns (represented by  $P$ ) increase, even members with ideal points very distant from the leader will accept in equilibrium his ideal point in the recruitment stage and be retained. Members whose career concerns are too low for them to accept the leader’s ideal point will be replaced and the leader will continue to offer his ideal point as the optimal policy proposal in the second parliamentary stage. This can be summarized in our first proposition

**Proposition 4.1** *Suppose  $M_i$  is such that his ideal point  $m_i$  is  $\leq -1$  (is in  $(-1, -\frac{1}{2})$ ). For rank control  $E > 1$  and career concerns  $P < 1$  ( $P < -2m_i - 1$ ) there is a unique subgame perfect equilibrium in which the leader proposes his ideal point  $x^* = 0$  which is rejected by  $M_i$  who then ends up being replaced with  $M_j$ , who is offered  $y^* = 0$ . If  $P \geq 1$  ( $P \geq -2m_i - 1$ )*

the offer  $x^* = 0$  is the same, but is accepted by  $M_i$  and the game ends in the first stage.<sup>8</sup>

In all scenarios described by Proposition 1 and corresponding to CLPR, the Leader gets his ideal point in equilibrium and the ideological cohesion between the party membership and the policies that are proposed by the leaders is at its lowest. We now turn to the more interesting case of low control over rank.

## 2. $E \leq 1$ (low control over rank, as in OLPR)

Although in the first parliamentary stage,  $L$  does not know the ideal point of  $M_j$  (who would only be drawn randomly to replace  $M_i$  if the leader decides to do so), she can calculate her expected ideal point. Her utility from replacing  $M_i$  is given by:  $U_L(rep) = -Pr(m_j \leq -1) | (E - 1) | -Pr(-1 < m_j \leq -\frac{1}{2}) | E + 2m_j + 1 | -Pr(m_j > -\frac{1}{2}) * 0$ , which, given the cumulative density function characterized in (1), is equal to:

$$E(y^*) = -(\pi(-1) + \frac{1}{2})(1 - E) - [\pi(-\frac{1}{2} + \frac{1}{2}) - (\pi(-1) + \frac{1}{2})] | E + 2m_j + 1 | \quad (2)$$

Equation 2, after substituting 0 for  $m_j$ , which is what in expectation  $m_j$  must be, given that  $F$  is uniformly distributed with mean 0, reduces to:  $E(y^*) = \frac{\pi - 3\pi E + E - 1}{2}$ .

In order to decide whether or not to replace  $M_i$ ,  $L$  must compare  $E(y^*)$  with  $U_L(\sim rep) = - | 1 | + v = v - 1$ . Define  $\frac{\pi - 3\pi E + E - 1}{2} + 1 \equiv \Delta$ . Now, the Leader's condition for replacing a disobedient  $M_i$  with a randomly drawn  $M_j$  can be written in terms of  $\Delta$  as:

$$\Delta > v \quad (3)$$

That is, when  $M_i$ 's clout is lower than  $\Delta$ , he will be replaced for going against the Leader with a randomly drawn  $M_j$ , but when  $M_i$ 's clout is above  $\Delta$ , he will be retained. Table

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<sup>8</sup>This equilibrium can be stated formally as follows. Suppose  $m_i \leq -1$  and  $E > 1$  The following strategy profile is in SPE:  $(0, rep \text{ if } sq, 0; \{x : -1 < x \leq P - 1\}; \{y : -1 \leq y \leq 0\})$ . Next, if  $m_i \in (-1, -\frac{1}{2})$  and  $E > 1$ , the following strategy is in SPE  $(0, rep \text{ if } sq, 0; \{-1 \leq x < 2m_i + 1 + P\}; \{y : -1 \leq y < 0\})$  Finally, if  $m_i > -\frac{1}{2}$  and  $E > 1$ , the following strategy profile is in SPE  $(0, rep \text{ if } sq, 0; \{-1 \leq x < 0\}; \{y : -1 \leq y < 0\})$ .

Table 2: Candidate clout,  $v$ , necessary to avoid replacement as a function of control over rank,  $E$ , and uncertainty over candidate preferences,  $\pi$

Control over rank	uncertainty over candidate preferences		
	$\pi = 1$	$\pi = \frac{1}{2}$	$\pi = \frac{1}{4}$
$E = 0$	$v = 1$	$v = \frac{3}{4}$	$v = \frac{5}{8}$
$E = \frac{1}{4}$	$v = \frac{3}{4}$	$v = \frac{5}{8}$	$v = \frac{21}{32}$
$E = \frac{1}{2}$	$v = \frac{3}{4}$	$v = \frac{1}{2}$	$v = \frac{11}{16}$
$E = \frac{3}{4}$	$v = \frac{1}{4}$	$v = \frac{3}{8}$	$v = \frac{23}{32}$
$E = 1$	$v = 0$	$v = \frac{1}{4}$	$v = \frac{6}{8}$

2 presents how high the critical value of clout,  $v$ , has to be in order to be retained by the Leader. It provides this minimum level of clout in terms of the density  $\pi$ , representing uncertainty over candidate preferences, and control over rank,  $E$  for those control over rank cases that satisfy the OLPR condition:  $E \leq 1$ . Setting the density  $\pi$  at a neutral  $\frac{1}{2}$ , we see that the lower the control over rank, the higher the MP's clout has to be in order to avoid replacement following refusing to support the leadership. This may seem counterintuitive at first, but note that a high clout MP who votes against the leader presents a liability going forward. The leader is better off replacing him with another candidate of similar clout, one with preferences that may be closer to the leader. Increasing the uncertainty about candidate preferences preserves the relationship between control over rank and minimum clout to avoid replacement (up to  $\pi = \frac{1}{3}$ , then it reverses), but the threshold becomes less sensitive to changes in control over rank as it changes from 0 to 1.<sup>9</sup> In other words, clout is more salient the lower the uncertainty regarding candidate preferences. For density  $\pi = \frac{1}{4}$ , the minimum clout only changes from  $\frac{5}{8}$  to  $\frac{6}{8}$  as  $E$  changes from minimum clout of 0 to the maximum clout (within the OLPR condition), 1. In contrast, for density  $\pi = 1$ , the minimum clout changes from 1 to 0 as  $E$  ranges from 0 to 1.

This is intuitive because the leader has less to lose from replacing an MP if the set of candidates who could replace him are relatively similar to the leader himself. It is also intuitive

<sup>9</sup>This raises the question of what is high rank control in a low rank control system such as OLPR. Empirically, it could be interpreted as the power a Leader has over determining which district a candidate can run in and against what other co-partisans or it could correspond to certain forms of flexible list systems Renwick and Pilet (2016)

that as control over rank declines, the readiness to replace even high ranking insubordinate MPs would increase. The high discipline costs in low rank control systems justify replacing a high clout MP with someone who is expected to have preferences aligned with the leader. By contrast, in systems with higher control over rank, the leader is better able to discipline the MP into obedience through rank control, so an insubordinate high clout MP is not as much of a liability.

The above step in our analysis can be summarized in the following implication:

**Implication 1** Higher uncertainty about the location of  $M_i$ 's replacement, represented by the density  $\pi$ , makes the level of control over rank less relevant. But when uncertainty is low, in low rank control systems, the leader will replace even the highest clout insubordinate MPs. In a higher rank control system, however, given the same level of uncertainty over the preferences of a future member, the leader only replaces members with less average clout. The others can be forced to vote with the leader by applying discipline, which is less costly as  $E$  increases.

## 4.6 Solving for the first-period member's optimal decision

As a final step, we turn to the optimal decision of  $M_i$ . Note that any  $M_i$  with  $v < \Delta$  will be replaced if insubordinate. Thus each such member must compare  $U_{M_i}(x^*) = - |m_i - x^*|$  to  $U_{M_i}(sq) = - |m_i + 1| - P$ . He will choose  $x^*$  iff  $- |m_i - x^*| > - |m_i + 1| - P$ . Thus,  $\forall M_i$  such that  $m_i < -1$ , if  $P > x^* + 1$ ,  $M_i$  will support the leader's proposal  $x^*$ . Similarly,  $\forall M_i$  s.t.  $m_i \in (-1, -\frac{1}{2})$ , if  $P > x^* - 2m_i - 1$ ,  $M_i$  will support  $L$ 's proposal  $x^*$ . Given this, the optimal proposal of the leader that would appease lower clout MPs (with  $v < \Delta$ ) is given by  $x^* = P - 1$  for  $M_i$ 's with ideal points below  $-1$  and by  $x^* = P + 2m_i + 1$  for  $M_i$ 's with ideal points between  $-1$  and  $-\frac{1}{2}$ .

Whether or not the leader will in fact issue such a proposal, however, depends on what he can expect in the event of replacement. Recall, that as we calculated in equation 2, this is given by  $E(y^*) = \frac{\pi - 3\pi E + E - 1}{2}$ . Thus in order to determine if the proposal  $x^*$  as defined

will be made, for each of the two intervals that  $m_i$  falls into ( $m_i < -1$  and  $m_i \in (-1, -\frac{1}{2})$ ) we have to compare  $x^*$  with  $E(y^*)$ . This is summarized in the proposition below:

**Proposition 4.2** *Suppose  $M_i$  is such that his ideal point,  $m_i$ , is less or equal than  $-1$  ( $m_i$  is in  $(-1, -\frac{1}{2})$ ). For rank control  $E \in (0, \frac{3-2P-\pi}{1-3E})$  ( $E \in (0, \frac{1-2P-\pi}{1-3E})$ ) and career concerns  $P < 1$  ( $P < -2m_i - 1$ ), there is a unique subgame perfect equilibrium in which the leader proposes  $x^* = P - 1$  ( $x^* = P + 2m_i + 1$ ), which is rejected by  $M_i$ , who then ends up being replaced with  $M_j$ , who in expectation is offered  $E(y^*) = \frac{\pi - 3\pi E + E - 1}{2}$ . If  $P \geq 1$  ( $P \geq -2m_i - 1$ ) the offer  $x^*$  is accepted by  $M_i$  and the game ends in the first stage. For rank control  $E \in (\frac{3-2P-\pi}{1-3E}, 1)$  ( $E \in (\frac{1-2P-\pi}{1-3E}, 1)$ ) the leader proposes  $x^* = y^*$  in the first stage. Almost universally, the Leader's proposals  $x^*, E(y^*)$  are to the left of his ideal point, implying that the Leader is able to get his ideal point only in rare cases described in the figure 5 below.<sup>10</sup>*

To illustrate that under OLPR almost universally  $E(y^*) < 0$  consider figure 5, which graphs the relationship between rank control,  $E$ , and uncertainty about recruitment,  $\pi$ , necessary to generate a optimal response from the leader in which he abandons his ideal point and makes a policy proposal to his left, closer to the party member. This can be expressed as  $E(y^*) < 0$ , which after substituting for  $E(y^*)$  reduces to  $\pi < \frac{1-E}{1-3E}$ . As can be seen from the figure, for control over rank  $E < \frac{1}{3}$ ,  $\pi$  must be below the curve to the left of the dashed line. And for control over rank  $E > \frac{1}{3}$ ,  $\pi$  must be above the curve to the right of the dashed line. The figure plots the expression  $\frac{1-E}{1-3E}$  as a function of  $E$  in order to show how low (for  $E < \frac{1}{3}$ ) and how high (for  $E > \frac{1}{3}$ )  $\pi$  must be in order for there to be an optimal proposal for the leader that is closer to the member's ideal point than to his own ideal point. We see that especially as  $E$  approaches .33, virtually and level of  $\pi$  is sufficient to induce the leader to abandon his ideal point. And even close to  $E = 0$ , for plausible values of  $\pi$ , such

<sup>10</sup>This equilibrium can be stated formally as follows. Suppose  $m_i \leq -1$  and  $E \in (0, \frac{3-2P-\pi}{1-3E})$ . The following strategy profile is in SPE: ( $P-1$ , rep if sq and  $\Delta > v, E-1$ ;  $\{x : -1 \leq x < P-1\}$ ;  $\{y : -1 \leq y \leq E-1\}$ ). Next, if  $m_i \in (-1, -\frac{1}{2})$  and  $E \in (0, \frac{1-2P-\pi}{1-3E})$ , the following strategy is in SPE ( $P+2m_i+1$ , rep if sq,  $E+2m_j+1$ ;  $\{-1 \leq x < 2m_i+1+P\}$ ;  $\{y : -1 \leq y < E+2m_j-1\}$ ) Finally, if  $m_i > -\frac{1}{2}$  and  $E \leq 1$ , the following strategy profile is in SPE ( $0$ , rep if sq,  $0$ ;  $\{-1 \leq x < 0\}$ ;  $\{y : -1 \leq y < 0\}$ ).

as  $\pi < 1$ , the leader has an incentive to abandon his ideal point and accommodate the first period member.

## 4.7 Discussion

In this subsection, we collect the insights from considering the two cases of low rank control, corresponding to OLPR and high rank control corresponding to CLPR. We are interested in a comparison between high and low rank control systems and their implications for parties' ideological cohesion. To capture this, Table 3 compares the Leader's optimal strategy under CLPR (high rank control) and OLPR (low rank control).

In High rank control systems ( $E > 1$ ), L can propose his ideal point immediately in the first stage. Whether or not it will be accepted depends on the magnitude of  $P$ , the parameter describing career concerns (for small enough career concerns it will not be accepted and the game will move to the second stage).

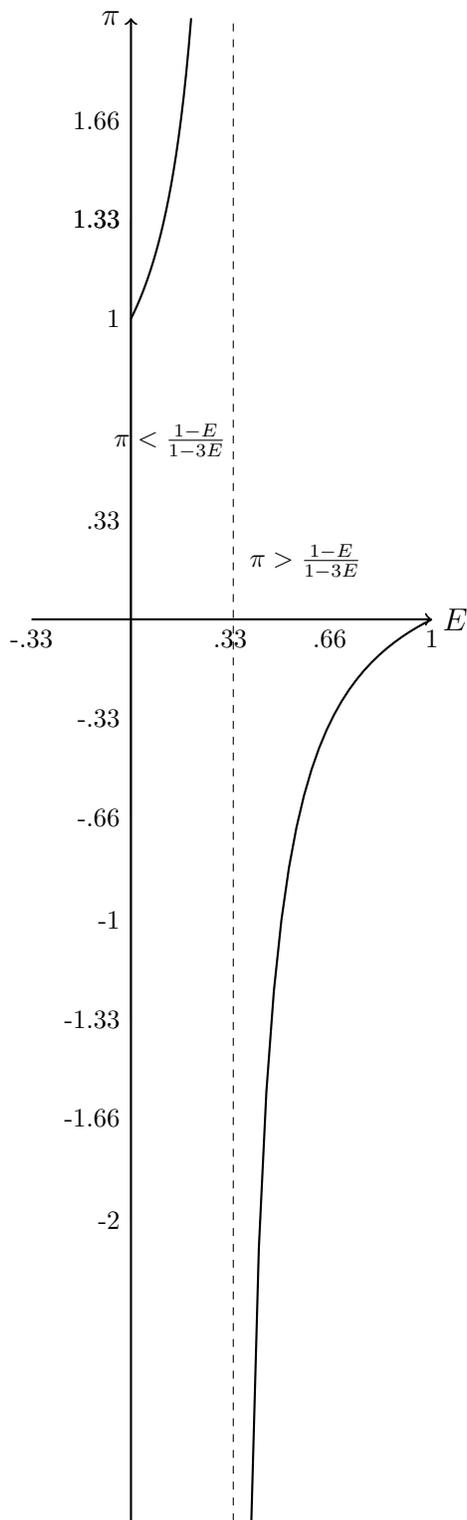
Under low rank control systems, the optimal strategy of  $L$  depends on the location of  $m_i$ . Hence, the first two rows of Table 3 refer to cases: (1)  $m_i \leq -1$  and (2)  $m_i \in (-1, -\frac{1}{2})$ . In the low rank control case, we calculated the policy that the leader can expect to be implemented if the game reaches the second stage. As shown in figure 5, for rank control  $E$  close to  $\frac{1}{3}$ , it is always to the left of the leader's ideal point. For other values of  $E$ , one can always find a interval of densities  $\pi$  where the expression for  $y^*$  is to the left of the leader's ideal point.<sup>11</sup>

The bottom row of table 3 illustrates what the leader can expect to obtain in the final parliamentary stage were he to replace  $M_i$ . Intuitively, it can be thought of as the constraint on  $L$ 's action in the first stage. Under CLPR (high rank control,  $E > 1$ ) this constraint is stronger than under OLPR (low rank control systems,  $E \leq 1$ ). Under CLPR, the leader knows he can get his ideal point in the second recruitment stage. Therefore, he has no incentive to compromise in the first stage by moving his proposals closer to  $M_i$ 's ideal point

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<sup>11</sup>Note, that in order for  $y^* = \frac{\pi - 3\pi E + E - 1}{2}$  to be negative (and therefore worse for the leader than his ideal point)  $\pi$  has to be greater than  $\frac{1-E}{1-3E}$  for  $E < \frac{1}{3}$ , and for  $E \geq \frac{1}{3}$ ,  $\pi$  must be greater than  $\frac{1-E}{1-3E}$ . Notice that since  $\lim_{E \rightarrow \frac{1}{3}} \frac{1-E}{1-3E} = \infty$ , any density  $\pi$  assures that  $y^*$  will be to the left on the leader's ideal point.

Figure 5: Values of  $\pi$  (as a function of  $E$ ) for which  $y^* < 0$ . Note, these are equilibria in which the Leader must propose policy closer to the party members' ideal point and away from his own ideal point



Location of $m_i$	High rank control	Low rank control ends in 1st stage	Low rank control ends in 2nd stage
$m_i < -1$	$x^* = 0$	$x^* = 0$ if $E > \frac{3-2P-\pi}{1-3\pi}$	$x^* = P - 1$ if $E \leq \frac{3-2P-\pi}{1-3\pi}$
$-1 \leq m_i < -\frac{1}{2}$	$x^* = 0$	$x^* = 0$ if $E > \frac{1-2P-\pi}{1-3\pi}$	$x^* = P + 2m_i + 1$ if $E \leq \frac{1-2P-\pi}{1-3\pi}$
second stage strategy of L	$y^* = 0$ made if $P$ is small	$y^* = 0$	$y^* = \min\{0, \frac{\pi-3\pi E+E-1}{2}\}$

Table 3: L's optimal strategy in first parliamentary stage. Note: (1) "P small" refers to  $P \leq x^* + 1$  for  $m_i < -1$  and to  $P \leq x^* - 2m_i - 1$  for  $m_i \in (-1, -\frac{1}{2})$ . (2) to calculate the optimal strategy of L for  $m_i \in (-1, -\frac{1}{2})$  we assumed the maximum of this interval,  $m_i = -\frac{1}{2}$ . For the minimum of the interval the condition for  $x^*$  to be accepted is given by  $E > \frac{2-2P-\pi}{1-3\pi}$

in order to retain her. Under OLPR, however, there is a range of parameter values for which such an incentive exists. As indicated in column 4 of the table 3, for both locations of  $m_i$  ( $m_1 \leq -1$  and  $m_i \in (-1, -\frac{1}{2})$ ), the leader proposes  $x^*$ , which is to the left of his ideal point, anticipating that it will be accepted and in equilibrium, it is. As a result, an OLPR system will, on average produce more cohesion between leaders and members of the same parties.

The advantage of presenting our results in this way is that it allows for a direct comparison of the optimal action of the Leader, while holding constant all the exogenous concerns we would want to hold constant, such as the size of career concerns, the location of  $m_i$ , and the uncertainty about the location of  $M_i$ 's replacement. The only parameter that varies between the high rank and low rank control columns is the parameter  $E$ . Based on the analysis following Table 3, we can summarize our finding with the following empirical implications:

**Implication 2** In low rank control systems (such as OLPR), holding the level of  $P$  constant, leaders will make proposals closer to the members' ideal points (and have proposals accepted in the first stage more frequently) than in high rank control systems (such as CLPR). This is the case especially for members with lower than average vote shares and even for members with ideal points distant from the leader.

**Implication 3** In both types of systems, low career concerns (represented by  $P$ ) exaggerate the tendency to reject the leader's proposal in the first stage. But CLPR does not make

the leader propose anything closer to the member's ideal point. Instead, the disobedient members just get replaced in the first stage.

**Implication 4** Finally, because the equilibrium distance between  $L$  and  $M_i$  (or  $M_j$ s) ideal points and party leaders is never smaller and is sometimes greater in closed list systems, we should expect party ideological cohesion to be greater in low rank control systems than in low high control ones.

## 5 Conclusion

The literature on political institutions and political parties has long suggested that party-centered electoral rules could encourage parties to be not just more unified in behavior, but more cohesive and programmatic in membership and character. Candidate-centered rules, meanwhile, are routinely expected to be associated with heterogeneous and less ideologically consistent parties. Despite the appeal of this intuition, the empirical record provides little support for this despite the intuitive nature of the argument.

To address this puzzle, we have proposed a model of the consequences of electoral systems for cohesion that specifically focuses on the path of recruiting like-minded members as a means to facilitate party unity. Particularly in parliamentary regimes, voting unity is critical to a party's success and survival. Party discipline—applying coercion to party members after they are elected—is a costly means for achieving such unity. As a result, parties' recruitment decisions have important consequences for their unity and provide the main mechanism by which electoral systems can influence cohesion directly. We argue here that whether party leaders propose policies that accommodate members preferences and recruit members so their preferences are better aligned with their own depends in part on their electoral incentives. If leaders can promote their legislative agenda based on discipline alone, they need not rely on internal cohesion.

We have shown that electoral systems offer distinct incentives for leaders with regard

to recruitment. In the case of CLPR, leaders are neither inclined to pursue policy that takes members' preferences into account, nor are they inclined to recruit members who are ideologically proximate. Discipline is "cheaper" to them than to leaders in OLPR systems. A byproduct of this difference is that OLPR systems induce leaders to put a premium on ideological cohesion, while CLPR systems do not.

The key mechanism in our argument is that OLPR clarifies exactly how many votes each member brings to the party list. This information can give members leverage against the leadership in avoiding the pressure of party discipline. In CLPR, since an MP's contribution to the list is obscured in most cases, members cannot use it as leverage against party discipline. We show that because discipline is costlier in OLPR, if leaders value voting unity (as they consistently do in parliamentary regimes), they are forced to either compromise their policy agenda towards members' preferences or adjust their recruitment decisions towards obtaining cohesion. Meanwhile, in CLPR, leaders can achieve voting unity relying on sheer discipline. We demonstrate that policy compromise is just as important as list placement in securing discipline, but as a buy product, it also results in more ideological cohesion.

There are two secondary implications worth mentioning in the conclusion. The first is the need for developing new measures of legislative preferences that separate behavior stemming from ideological cohesion from behavior induced by discipline. In parliamentary regimes where voting unity may be the product of both discipline and preference alignment ideal point estimation based on roll call voting is of limited value. We believe that the unavailability of measures of intra party differences in policy preferences has hampered to date, scholars' investigation of the institutional underpinnings of ideological cohesion, because party unity achieved through discipline is observationally equivalent to party unity achieved through ideological cohesion in the analysis of roll call data. Second, our paper shows how electoral institutions in candidate centered systems distribute implicit bargaining power away from party leaders and towards rank and file. Thus, there is no question, that party leaders in OLPR and FLPR are weaker, *ceteris paribus*, than leaders in CLPR system. But the

literature has been mistaken in linking this weakness to ideological heterogeneity. We show, it has the exact opposite effect.

The most important implication of our model is that OLPR, despite being associated in the literature with incohesive and “weak” parties, actually provides incentives to create more cohesive parties, which are associated with “stronger” programmatic party systems. Conversely, CLPR systems can discourage the formation of cohesive parties, despite their advantages for discipline. To the extent that programmatic parties require ideological cohesion, OLPR offers better prospects for programmatic party development than CLPR. We believe that this effect may explain the lack of empirical evidence consistent with party-centered electoral systems promoting programmatic party behavior.

## 6 Appendix

Question wording for Chapel Hill Expert Survey

**LRGEN:** Please evaluate the position of the party in 2010 in terms of its overall ideological stance.

[0]=Extreme Left

...

[5]=Center

...

[10]=Extreme Right

Question wording for Democratic Accountability and Linkages Project

Party Emphasis on ‘Party Policy Positions:’ Please indicate the extent to which parties seek to mobilize electoral support by emphasizing the attractiveness of the party’s position on policy issues.

[1] Not at all

[2] To a small extent

[3] To a moderate extent

[4] To a great extent

Table 4: Regression Information

	(1)	(2)
	CHES L-R StDev	DALP Policy Positions
Personal Vote	-0.0570 (0.0636)	0.0607 (0.0668)
East Europe	0.444*** (0.0626)	-0.390*** (0.0611)
Constant	0.800*** (0.0450)	3.504*** (0.0437)
Observations	198	208
R-squared	0.205	0.167

Standard errors in parentheses  
 \*\*\*  $p < 0.01$ , \*\*  $p < 0.05$ , \*  $p < 0.1$

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