

The Impact of Party-Switching on Legislative Behavior in Brazil

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Abstract

In this paper, I examine the impact of party-switching on legislator's roll-call votes in Brazil. About one-third of deputies change party during each four year term; some change as many as seven times. Such volatility challenges basic concepts of representation - if legislators change their policy positions to accommodate their new party, they violate the basic utility of party labels for electoral information cost reduction. This research has an additional utility. Legislative scholars agree that political parties are important parts of modern democracy, but roll-call based measures of party influence cannot separate out

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the influence of legislators own preferences and party directives. Analyzing the behavior of switchers before and after they change party gives us leverage on this and the ongoing “do parties matter” debates. I find significant and consistent party effects on legislative behavior, even when controlling for executive influence.

1 Introduction

Political parties play a central role in maintaining accountability in modern mass democracies. Unlike the Greek city states, modern democracies delegate decision-making to elected representatives, trusting that the re-election incentive will encourage good policy making. This incentive is challenged by the complexity of modern life and government. Most citizens face severe information problems - they do not have time to monitor the daily activities of legislators, including roll-call votes, bill initiations, and committee work.

Political parties provide an essential link between citizen and representative. Parties act as essential information shortcuts. Well-defined and stable party labels enable citizens to largely ignore the monotonous day-to-day work of legislative and governmental affairs, but still cast accurate votes on election day - rewarding or punishing parties for their policy performance. This basic informational mechanism is an essential task of parties in modern mass democracies. (Downs, 1957; Cox and McCubbins, 1993; Snyder Jr. and Ting, 2001; Aldrich, 1995) For parties to play such a role, they must create and defend stable party positions: sticking together on polemic issues and toeing the party line. On roll-call votes, stable unity in defense of a professed ideological goal makes representation possible. To create credible policy labels and attract voters, political parties should discipline their members, rewarding faithful and consistent support of the party, and punishing defections from the party's preferred position.

Ironically, while convinced of the utility and importance of parties, political scientists have had a very difficult time actually demonstrating party influence in the legislative sphere. Especially challenging has been unraveling the mechanisms driving roll-call votes. Scholars have used diverse measures of voting cohesion and spatial models in attempts to capture party influence on legislators. But in most cases we cannot distinguish between roll-call

votes cast by a legislator for personal reasons and those cast for partisan reasons.(Krehbiel, 1993) That is, are measure of cohesion high because parties enforce discipline, because legislators in parties all think alike, or for some other reason? High party cohesion scores alone do not prove the existence of party discipline on votes. The conundrum plagues students of American politics and has spread to the legislatures of other democracies, including those in Latin America, Europe, and Asia.

In this paper, I offer an empirical approach for measuring and for explaining the nature of party influence. Previous work has used party-switching to demonstrate party influence over legislators, using the logic that if parties do not influence legislators, switchers won't change their voting behavior. Nokken (2000) has applied this logic to the United States' House of Representatives, and found significant party effects on legislative behavior. My approach also leverages party-switching, but uses a spatial model where party influence is explicitly modeled as a function of covariates. When applied, this approach can be used to test for party influence, but also allows one to test hypotheses about the nature of party influence and how it varies.

I apply my method to the case of Brazil. Once characterized as the "anti-party system", recent scholarship suggests that political parties there may be quite institutionalized and successful at disciplining their members. Relatively frequent party-switching creates an opportunity to test for and model the extent of party influence.

I proceed in 3 additional steps. In the next section, I provide an overview of the Brazilian political system and basic patterns of party switching. In Section 3, I build and estimate a model of party influence on switching legislators. In Section 4, I discuss my results and their implications.

2 Party Influence in Brazil

After a return to democracy in 1985, Latin America's largest country was soon characterized as the "anti-party system" for its shifting coalitions, frequent party switching, low voter partisanship, and dominant executives. The weakness of the Brazilian party system has been seen as a function of both history and institutions. Mass parties were first created and manipulated by Getulio Vargas in the 1940's but a lack of grassroots organization prevented the consolidation of partisanship. In addition, the argument goes, current Brazilian institutional rules don't encourage strong legislative parties. High district magnitude combined with open-list proportional representation means that legislators should compete *within* parties for votes and should carve out constituencies by being different, not the same, as their party colleagues. (Ames, 2001, 1995a,b; Mainwaring, 1999; Carey and Shugart, 1995) Decentralized federalism should exacerbate party weakness by reducing the potential influence of national leaders. (Souza, 1998; Mainwaring, 1997, 1999)

As discussed, more recent scholarship has taken a different position, arguing that Brazilian parties are relatively well-consolidated, party leaders have substantial ability to influence their flocks, and legislators vote in a disciplined fashion. How are parties able to overcome the strong institutional incentives for legislative individualism? If parties do exert influence, there are at least three explanations for their ability to overcome anti-party institutional incentives. First, Figueiredo and Limongi (2000) argue that a highly centralized internal organization of the legislature allows party leaders to control the policy agenda and thus reward or punish members. Their argument about agenda control is strengthened by recent empirical work by Amorim Neto et al. (2003), who show that majority coalition roll-rates are extremely low.

Related, other scholars have emphasized the importance of pork distrib-

ution for creating disciplined voting blocs. Executives - both national and state-level - control substantial budget resources and jobs that can be distributed to influence legislative behavior. Such distribution is both wholesale - trading jobs for long-term support - and retail - trading specific pork projects for single roll-call votes.

Finally, some electoral markets may create a demand for party labels that overcome institutional incentives. Not all Brazilian voters lack policy interests or partisanship, and such voters will prefer credible party labels to the catch-all opportunistic parties.

Regardless, all empirical work relies, as in the US Congress literature, on careful analysis of roll-call votes.(Figueiredo and Limongi, 1995, 2000) Consequently, findings are subject to the same criticisms found in other legislative debates. High levels of voting cohesion might reflect party discipline, but they might also reflect a congruence of legislators' or their constituents' preferences. High levels of cohesion *suggest* party discipline - but can also be explained as the result of other mechanisms.

Is Brazil the “anti-party system” - or a model party system? Frequent party-switching in Brazil provides an alternative for measuring party influence *and* testing alternative explanations for high party discipline.

Party-switching is a long-running theme in Brazilian party politics. References to opportunistic party-switching go back as far as the mid 1800's (Graham, 1990) as well as in the democratic period of 1945-1964.(Schneider, 1971) Switching was largely thwarted by the military during the authoritarian regime (1964-1985), but quickly returned when affiliation rules were liberalized in the early 1980's.

Table 1 summarizes recent switching patterns for the Chamber of Deputies and Federal Senate. About a third of deputies and a fifth of senators will switch party during any four year period. Both legislatures' figures are relatively high, but switching rates for the Senate are somewhat lower than that

of the Chamber. Previous work suggests that lower Senatorial switching rates reflect different electoral rules and different career patterns. The first-past-the-post system of Senate elections does not reward switchers like the Chamber's OLPR system, and Senators tend to be relatively senior members of their party. They are more likely to be in a position to push a party to change in their favor than to need to switch party because of disagreements.

Switching has declined slightly of late - by about 20% in the Chamber, and 30% in the Senate. This may reflect increasing party system consolidation and recent changes in institutional rules. Legislators' guarantee of automatic renomination has been removed, and must maintain stable party memberships months before elections. Regardless, switching rates are still quite high when compared with most countries.

Table 1: Party Switching Rates

	Chamber		Senate	
	49th	50th	49th	50th
Leg. Size	503	513	81	81
Number of Switches	262	212	26	17
Switching Rate	.52	.41	.32	.21
Number of Switchers	198	169	25	13

Why do Brazilian legislators switch? Desposato (nd) found three core motives using interviews and data analysis. First, legislators change party in search of national and gubernatorial pork. That is, national legislators tend to switch into parties that form governing coalitions in Congress, or

govern their home states. Second, legislators switch party when they are ideologically alienated within their own party. Finally, Brazil’s electoral rules make election easier in some parties than others, and legislators tend to join parties that facilitate election.

3 Modeling and Testing for Party Influence

In this section, I examine roll-call votes for evidence of changes in policy positions before and after switching party. I use two approaches. First, I examine basic measures of party agreement before and after switching. Second, I build and estimate spatial model of behavior.

3.1 Where’s the Party?

We can observe basic behavioral patterns by simply comparing the extent to which switching legislators vote with their old and new parties, before and after switching. Define a legislator L ’s agreement with party P , L_P as:

$$L_P = \frac{\sum_{i=1}^n I_{P_i=L_i}}{n}.$$

P_i and L_i are the party’s and legislator’s positions on bill i , respectively, so $I_{P_i=L_i}$ is an indicator variable coded “1” if the party and legislator agree, and “0” if they take differing positions. Effectively, this is the percentage of times that a legislator votes with a party leader’s recommendation.

Table 2 compares basic party agreement scores for switchers and non-switchers for the 49th and 50th legislatures. For both groups, overall agreement is reasonably high, but defectors have slightly lower agreement scores. This echoes previous work(Desposato, nd), finding that legislators in disagreement with their own party are more likely to change party.

Table 3 reports switchers’ agreement scores with their old and new parties, before and after switching. The top left cell shows mean agreement scores

Table 2: Party Agreement Scores

	Legislature	
	49	50
Switchers	.75	.83
Non-Switchers	.76	.84

while in their old parties; the bottom right cell shows the same while in their new parties. The off-diagonals show agreement with the new party *before* switching and agreement with the old party *after* switching. That is, they capture the extent to which one voted with her old party after leaving it, and the extent to which a deputy votes with her new party before even joining it.

Table 3: Switching and Party Agreement Scores

	Legislature			
	49th		50th	
	Before	After	Before	After
Old Party	.76	.64	.82	.78
New Party	.60	.73	.72	.84

If parties don't matter, then legislators should vote with their old party just as much after switching as before; if parties do influence behavior, then legislators should increase their voting with their new party, and decrease their voting with their old party. Table 3 reports pre- and post-switch agreement scores. There are clear and obvious changes in legislators' behavior,

Table 4: Presidents, Switching, and Party Agreement Scores

	Gov. to Gov		Gov-Opp	
	Before	After	Before	After
Old Party	.84	.81	.79	.27
New Party	.80	.84	.26	.90

lending support to the party influence hypothesis. In the first period, before changing, deputies voted with their party’s positions about 75% percent of the time; after changing, they voted with their old party significantly less, just 64% percent of the time. Similarly, they voted with their new party just 60% of the time before switching and 73% of the time after switching. Agreement scores increased across the board for the 50th legislature, but the same basic pattern emerges, suggesting significant changes in voting behavior by legislators. Switchers do modify their voting behavior to be more like their new party after changing, providing evidence of party influence over legislators.

What explains apparent party influence: legislative organizations, executive pork distribution, or voter demands? Previous work has found it difficult to parse out the dramatic influence of the powerful Brazilian president and political parties on legislative behavior(Desposato and Samuels, 2003) Table 4 provides a partial answer, comparing switching between the government and opposition coalitions with agreement patterns for switching within the governing coalition.The differences between the two are striking. When switching between the government and opposition coalitions, three factors are notable. First, legislators’ agreement with their party of origin are lower on average - 79%. Second, agreement with destination parties is higher - 90%. Finally, “off-diagonal” agreement scores are quite low. The implica-

tion is that there are substantial changes in voting behavior when switching between the government and opposition.

When switching simply within the governing coalition, the impact of switching is much lower but persists nevertheless. Switchers have roughly equal levels of agreement with their pre and post-switch parties - about .84 - suggesting that their switches are not driven by ideological differences with their old parties. The “off-diagonals” are lower than the actual party agreement scores. Prior to switching, deputies voted with their old party 84% of the time; after switching this fell to 81% of the time. The figures for new parties pre and post switching are similar. The initial implication is that executives have substantial influence over deputies’ behavior, but that even so, partisan considerations force switchers to change their behavior - even when within a single large governing coalition.

Understanding the Nature of Party Influence

The agreement measures provide compelling support for the party influence hypothesis - party membership does indeed influence roll-call behavior in Brazil. But the simple agreement scores do not provide any indicators of how parties exert influence, and why some appear to be more influential than others. It also ignores the diversity of switching patterns in a complex, multi-party democracy. For example, switching between two diverse center-right parties will affect agreement scores differently than switching between two extremist parties, but the average agreement scores ignore this diversity.

In this section, I build a spatial model that allows party influence to vary with parties’ resources and characteristics. First, let each legislator have preferred ideal point L_i , and let each party have a preferred ideal point P_j . L_i can be perceived as a combination of both legislator i ’s personal

preferences, and those of his core constituents or subconstituents.¹ Parties ideal points might simply be the median of legislative members or the ideal point of their leader, but they might also be independent of membership, reflecting extra-legislative hierarchy or constituency preferences.

Legislators' behavior on roll-call votes reflects both their own/constituency preferences, and the pressures imposed by their parties. Call the *effective* or *observed* ideal point of legislator i while in party j θ_{ij} , which can be written as:

$$\theta_{ij} = \alpha P_j + (1 - \alpha)L_i$$

where α is between zero and one. Thus when α is 1, parties have complete control over their members and legislators always vote the party line. When α is 0, parties have no influence over their members, and legislators always vote their own (their constituents) preferences.

With a standard random utility model of voting, let δ_k be the location of a “yes” vote on bill k , and γ_k be the location of a “no” vote on bill k . Legislator i votes “yes” on bill k if:

$$f(\theta_{ij} - \delta_j + \epsilon_{ijk}) < f(\theta_{ij} - \gamma_j + \epsilon_{ijk})$$

and “no” if

$$f(\theta_{ij} - \delta_j + \epsilon_{ijk}) > f(\theta_{ij} - \gamma_j + \epsilon_{ijk}).$$

where ϵ_{ij} is an iid random variable and f describes legislators' utility functions. Typically, ϵ is distributed iid normal or extreme value, generating a probit or logit-like model, and f is quadratic or exponential.²

α provides an answer to the “where’s the party” question. A significant and reasonably large α , say .5, suggests substantial party influence over legislators, on average. But we can also explicitly model the extent of party

¹See Bishin (2000) for a discussion of core constituency types.

²See Londregan (2002) and Poole and Rosenthal (1997) for additional discussion.

influence to test hypotheses about the nature of and explanations for party influence. Specifically, we can allow for a different α_{ij} for each legislator in each party, which varies as a function of some key covariates.

Let X be a matrix of covariates and β a vector of parameters such that $\alpha = X\beta$. Legislator i 's observed ideal point is still a function of his location and his party's location:

$$\theta_{ij} = \alpha_{ij}P_j + (1 - \alpha_{ij})L_i$$

But now α varies for each legislator-party combination, as a function of each party's potential influence:

$$\alpha_{ij} = x_{ij}\beta$$

where x_{ij} is the row of X corresponding to legislator i in party j . Using a simple logistic transformation of a linear function keeps α between zero and one.

In a system with stable party membership, this is a purely academic exercise. With only one measure of θ per legislator, θ_{ij} is an irreducible function of legislators' own preferences, party influence, and other possible pressuring actors. Without additional information, we cannot distinguish between party and legislators' preferences. But when legislators switch party, as in the case of Brazil, we have the variance we need to estimate α . We pick an error distribution for ϵ , pick a utility function for legislators f , and estimate α via maximum likelihood or bayesian methods. Practically, however, this can be quite difficult and actual estimation requires using slow statistical languages (like R, Gauss, etc) or learning a machine language like C++ or Fortran.

For the time being, I chose to use existing technology to estimate ideal points and then "back out" the parameter of interest, α . That is, I first estimate ideal points for all unique observed legislator-party combinations, then use these ideal points to estimate parameters. The basic procedure is as follows:

1. Estimate ideal points for each observed legislator-party combination. In other words, if a legislator switched from the Democratic Worker's Party (PDT) to the Liberal Front Party (PFL), I will estimate two ideal points for her - one for her votes cast while in the PDT (θ_{iPDT}), and another for her votes cast while in the PFL (θ_{iPFL}). All ideal point estimates use WNOMINATE, see Poole and Rosenthal (1997) for more details.
2. Estimate party locations (P). I use two methods. First, I estimated each party's ideal point as the median of its non-switching members. Second, I estimated a separate party ideal point by counting publicly-taken party positions as votes. When party leaders declared a party position prior to roll-call votes, for the purpose of estimating a party location, I counted that position as a party vote.
3. Estimate party-influence using a mixed-effects model. In the case of Brazil, recall that previous work has identified internal legislative organization, pork, and constituency type as affecting the level of party influence over legislators. Let O be legislative organization, R be pork and C be constituency type (partisan or personal), we now write:

$$\theta_{ij} = \alpha P_k + (1 - \alpha)L_i + \epsilon_{ik}$$

where

$$\alpha_{ij} = \alpha_O O + \alpha_R R + \alpha_C C$$

This is effectively a multi-level, fixed effects model. The fixed-effects capture the $(1 - \alpha)L_i$ term. The multi-level component of the model measures the predictors of α . Ultimately, second-level parameter estimates (α_i) are the parameters of primary concern - they explain what factors increase party influence over legislators.

Data

As above, I used roll call votes from the 49th and 50th Chamber of Deputies, 1991-1998, to estimate legislator-party ideal points. The key covariates were measured as followed:

- *Pork* - I used two measures of the relationship between party membership and access to state resources.

Cabinet_j measures the percentage of time that party *j* was part of the governing coalition, ranging from 0 (never in the governing coalition) to 100 (always in the governing coalition). Cabinet membership should increase party influence and discipline.

Governor_{i,j} is a dummy variable coded “1” if party *j* holds the governorship in legislator *i*’s state. Governors could either increase or decrease party influence. If they align with national party leadership, they could use distribution of state resources to reward or punish legislators’ behavior. But as Carey (2004) notes, governors could also create a situation of “competing principals”, where major players compete for legislators’ votes, creating more opportunities for defections.

- *Constituency Type* is measured as the percentage of a parties votes cast for the list, as opposed to individual candidates.
- *Internal Legislative Institutions* - Since all parties have effectively equal access to internal organizing tools, all should be able to use these internal institutions to discipline their memberships. Since there is no variance in parties’ ability to use these to influence members, $\alpha_o O$ can only be estimated as an intercept term - the level of party influence provided by legislative institutions, when no other factors (pork or partisan voters) are present.

Results

Table 5 shows parameter estimates for the 49th and 50th legislatures, for the first and second dimensions.³ The two time periods, and dimensions, show very different results. In the first period, baseline party influence is quite high (α_0), accounting for about 50% of legislators' observed ideal points when other variables are set to zero. Neither list votes nor governors have any significant impact on party influence. The only significant variable is *Cabinet*, but it is negative, in contrast to the theoretical prediction. One explanation for this divergent result is the impeachment of President Collor and the disappearance of his party, the PRN, about halfway through the 49th session.

In the second time period, results vary significantly across dimensions. In the first dimension, parties' baseline influence is substantial: .65 - and significant, indicating that party influence accounts for more than half of observed ideal points. Cabinet membership is positive, as expected, but not significant. Governors' influence is again tiny and not significant. Finally, list votes have a substantial impact on party influence. Increasing list votes by 10% increases party influence by .10.

On the second dimension for the 50th legislature, baseline party influence is effectively non-existent, and governors are again not influential. Instead, Cabinet and Party Labels shape party influence levels. Being in Cabinet increases party influence by about .59 over opposition parties, all else equal. List votes are again significant, but their substantive impact is much larger - a 10% increase in list voting increases party influence by .34!

The results suggest several conclusions. First, there is a significant and large party influence on the first dimension in both period, for all parties (the intercept term). This result concurs with Figueiredo and Limongi (2000). All

³Note that the first dimension captures about 90% of the variance in voting.

parties can access legislative organizational tools to discipline members, and party membership does influence legislative behavior, even for non-cabinet and highly personalistic parties. Second, Cabinet membership did not have the expected effect. The first period's negative results might just be shaped by the regime change during that term. In the second period, Cabinet membership had a positive sign, but was not significant for first dimension influence. In other words, cabinet membership does not increase parties' leverage over their members. Third, governors do not affect party influence positively or negatively. This echoes my own previous work (Desposato, 2001) showing that the influence of subnational actors has likely been overstated in Brazil.

Finally, the results suggest a significant degree of voter impact on party influence. List votes are strongly related with party influence, especially in the second period. Most parties still have very low list voting rates, but a handful may get as much as 20% of their votes from lists. These findings reinforce the importance of constituency preferences for stabilizing party systems. Certainly in this case the explanatory variable is not simply exogenous; voters may develop partisanship in response to issue promotion and party promotion. The Worker's Party, which has relatively high list voting rates, has encouraged discipline since its founding.

Several figures provide some visualization of switching patterns and party distributions. The graphs show the relative change in behavior of four legislators that changed party. The grey dots represent the first and second WMINATE scores of all legislators. The highlighted and labeled points are the party and president ideal points, based on their publicly-taken positions, reported in Figueiredo and Limongi's roll-call vote dataset. Each of the four graphs focuses on the shifting observed ideal points of a different switcher, tracked by the solid line.

In the first graph, Luiz Piauhyllino of Pernambuco left the leftist PSB for the President's party, the PSDB, in June of 1995. His voting obviously

Table 5: Party Influence Predictors

Variable	49 th Legislature					
	Dim 1			Dim 2		
	Estimate	SE		Estimate	SE	
α_0	0.59	0.11	**	0.48	0.19	*
α_1 Cabinet	-0.28	0.13	*	-0.70	0.33	*
α_2 Gov	0.16	0.16		0.54	0.28	
α_3 Constituency	0.33	0.44		-0.68	1.62	
Variable	50 th Legislature					
	Dim 1			Dim 2		
	Estimate	SE		Estimate	SE	
α_0	0.65	0.05	**	0.06	0.14	
α_1 Cabinet	0.11	0.08		0.59	0.16	**
α_2 Gov	0.03	0.05		0.02	0.14	
α_3 Constituency	0.89	0.23	**	3.35	0.77	**
Deputy-specific fixed-effects not shown.						
**=.01; *=.05						

underwent a dramatic shift - from the bottom left corner of the graph to immediately adjacent to his new party. In the second graph, we can see a party switch between two conservative parties. Jorge Wilson changed back and forth between the PMDB and PPB. Elected in the PMDB of Rio de Janeiro, he switched into the PPB in December of 1995, stayed two years, then moved back to the PMDB in October of 1997. His voting behavior underwent a simultaneous change, from a loyal PMDB member to a solid PPB voter.

The third graph shows Wilson Braga's transition from center-left to center-

right, as he switched from the leftist/populist PDT to the president's PSDB party. He was not initially the most loyal PDT member - his PDT ideal point was relatively far from the party centroid. After switching, however, he took positions very close to the PSDB's recommended line.

Finally, the fourth graph shows Max Rosmann's stroll across the ideological spectrum. The legislator from Rio de Janeiro began his journey in the PDT, in the left portion of the screen, as a relatively alienated member of the PDT. He shifted to a center-right position when he joined the PMDB, moved into the core of the governing party when he joined the President's PSDB, and finally ended nearly back where he started though this time without any party membership ("sem partido").

These are just four examples of the basic trends observed in the data, but the emerging pattern is quite consistent. Legislators significantly change their voting behavior when switching party, and these changes can take place even with switches among the center-right parties.

4 Conclusion

Party-switching is frequently seen as evidence that "parties don't matter". Ironically, switching indicates that party affiliation is important to legislators - otherwise they would not switch at all. Further, recent scholarship has shown how party-switching provides a useful lens for understanding party systems, helping us gain leverage to answer the "why parties" question.

In this paper, party-switching helps address an important debate in comparative politics - how strong are Brazilian political parties? While traditionally characterized as weak, fragmented, and largely unimportant, recent work has suggested that we have underestimated Brazilian party development, but existing methods have been unable to unravel the different effects of personal, partisan, and presidential influence over roll-call votes.

My analysis of changes in party-switchers behavior finds consistent and significant (substantively and statistically) shifts in switchers' ideal points - legislators move significantly toward their new party. The degree of party influence, however, varies with constituency type and cabinet membership, though governors apparently have no impact on party strength. The implication for Brazilian politics is that parties do have significant influence over deputies' behavior. More broadly, this approach can be used to study party influence in any context where there is regular switching.

Future versions of this project will incorporate several additional features of switching and roll-call votes. First, I plan to estimate the α parameters directly from roll-call votes, instead of from NOMINATE scores. Doing so will require a lengthy estimation process, but should be straightforward. Second, I suspect that estimates of party influence should control for selection bias in the type of deputies that are most likely to switch party. As discussed, legislators that diverge from their party's policy centroid are also those most likely to switch party in the first place. Related, legislators prefer to switch into parties close to their current ideal point, over those that are far away. Consequently, the legislators closest to party centroids are also those least likely to switch party. This nonrandom switching could bias the party influence parameters downward - understating the extent of party influence. Adding a selection model to the likelihood function will make it quite ugly, but again, estimation should be slow but straightforward.

A Additional Estimation Issues and Possible Solutions

This appendix discusses in more detail several of the potential problems with my methodological approach. In particular, three are the most important. Ultimately, all problems will be solved through a more “first-principles” approach - directly modeling roll-call votes along the lines of WNOMINATE.

The first problem is that the estimates suffer because the key covariates - P_j and E are estimated with error. The fixed-effects model I used assumes that all independent variables are fixed and estimated without error. However, the measures of Party and Presidents’ locations are themselves estimates, not fixed values. Lewis (2000) considers fixes when the *dependent* variable is estimated with additional error, but not the case of independent variable measurement error.

The second problem is that the WNOMINATE method - indeed, all methods for ideal point estimation - only allow “yea” and “nay” votes - ignoring the possibility of strategic and meaningful abstentions. In Brazil, abstentions are frequent, especially on the President’s major legislative initiatives. Ignoring them could attenuate estimates of executive influence.

Several solutions are possible. One is to simply code all abstentions as “nay” votes, but so doing makes equally strong and naive assumptions about voting behavior - that legislators never get sick, skip sessions to attend to constituents or meet with officials, or are otherwise indisposed. Further, previous research (Desposato, 2001) suggests that even strategic abstentions are more than just “no” votes, but something somewhere between a yes and a no vote.

The other solution, as mentioned above, is to directly estimate α_1 and α_2 from roll-call votes. A utility function for legislators could be directly written that incorporates strategic and sincere abstentions as well as the influence

of parties, presidents, and legislators' own preferences. Unfortunately this would require unreasonable amounts of programming and processing time.

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Figure 1: Switcher's Changing Ideal Points

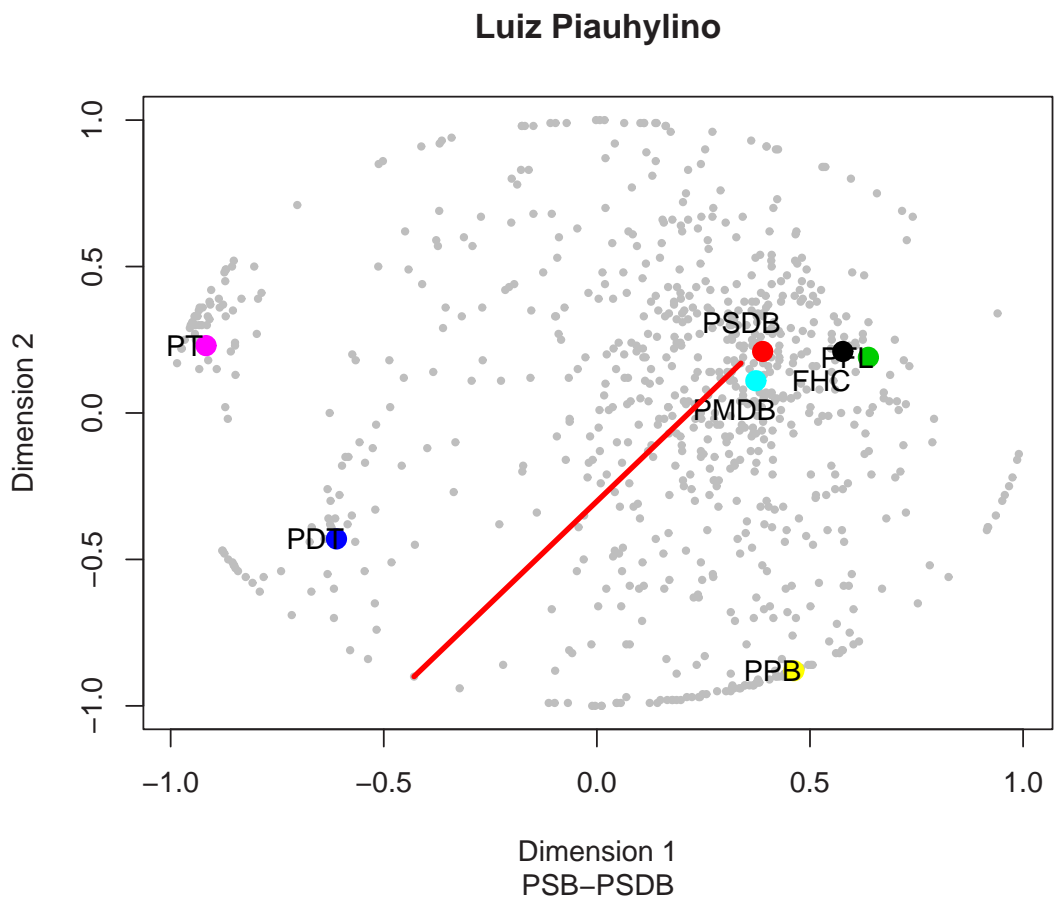


Figure 2: Switcher's Changing Ideal Points

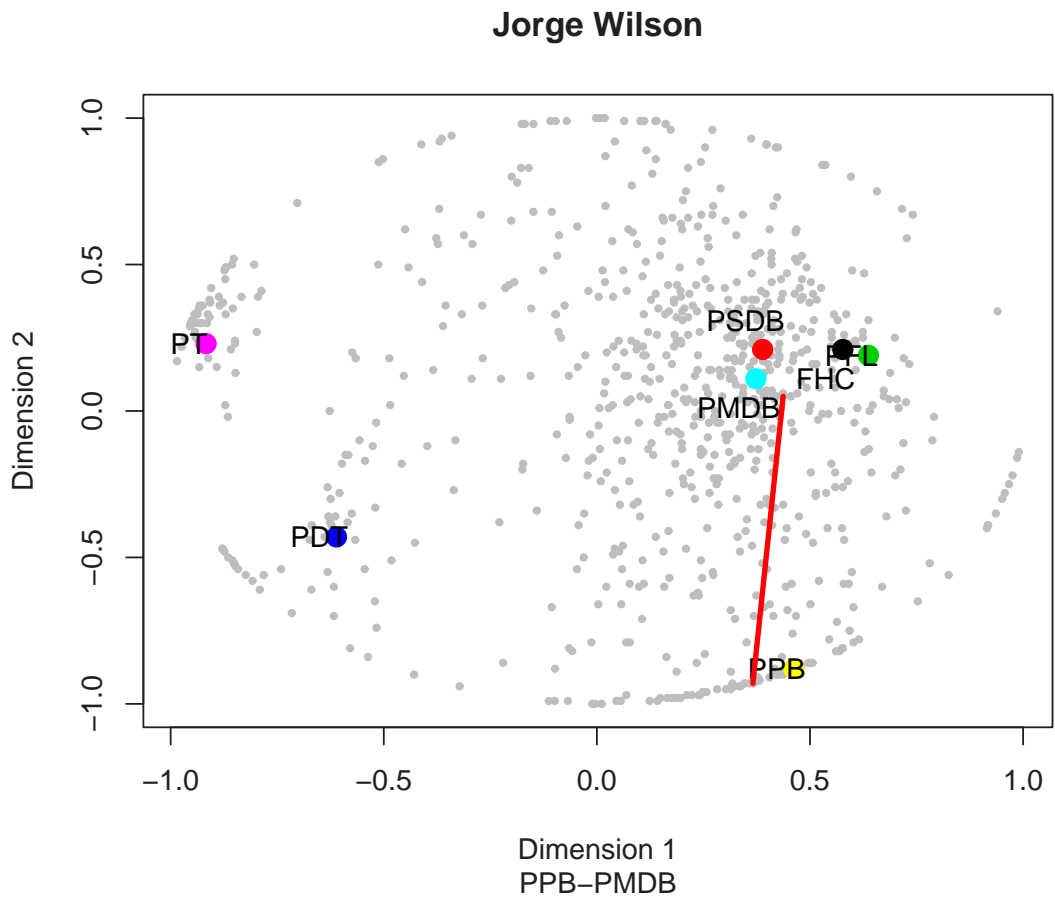


Figure 3: Switcher's Changing Ideal Points

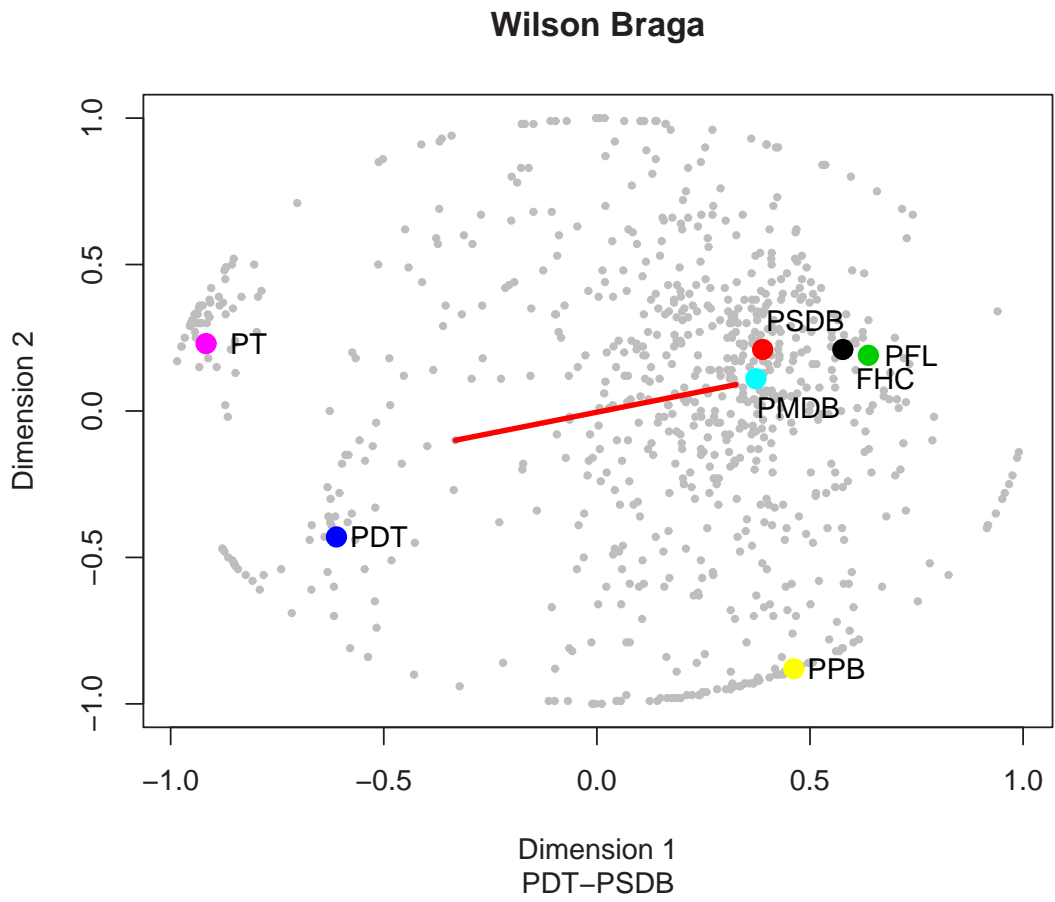


Figure 4: Switcher's Changing Ideal Points

