

Between Voter and Party Preferences

Party Loyalty in 16 Latin American Congresses

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Abstract: This article analyzes how the tension between the district median voter and party policy preferences affects a Members of Congress (MC) disposition to toe the party line versus siding with the district in Latin America. It analyzes MCs in the lower chamber of 16 Latin American countries based on face-to-face MC and voter surveys, *i.e.* the district median voters' and parties' left-right placement and MCs' responses. The findings suggest that MCs only claim to deviate from the party line by siding with the district as the parties' position moves closer to the districts' median. Robustness checks support this tendency: As the party position moves closer to the district median position, MCs are more likely to display lax attitudes towards party discipline and attach more importance to getting resources for their districts. Overall, the findings contribute to an understanding of the effect of the tension between district and party preferences on party loyalty in Latin America and the sequential steps leading to party unity in legislative votes.

Keywords: legislative behavior, congruence, cross-pressures, Latin America.

Entre las preferencias de los votantes y del partido: Lealtad partidista en 16 congresos latinoamericanos

Resumen: Este artículo analiza cómo la tensión entre las preferencias políticas del partido y las preferencias de los votantes afecta la lealtad partidista de los diputados en América Latina. El artículo analiza legisladores de las cámaras bajas de 16 países latinoamericanos, basándose en encuestas directas a legisladores y votantes, *i.e.* la posición ideológica del partido, de los votantes del distrito y las respuestas de los diputados. Los hallazgos sugieren que los diputados proclaman desviarse de la línea partidista a favor de las preferencias de los votantes del distrito en la medida en que la posición del partido se acerca a la posición mediana de los votantes del distrito. Los controles de robustez sustentan dicho hallazgo: en la medida en que la posición del partido se acerca a la posición mediana de los votantes del distrito, los diputados son más proclives a tener actitudes relajadas respecto a la disciplina partidista y a darle más importancia a conseguir recursos para su distrito. En general, los hallazgos aportan una aproximación sobre el efecto de la tensión entre preferencias de votantes y preferencias partidistas y sobre la lealtad partidista en América Latina, así como los pasos que conducen a la unidad partidista en los votos legislativos.

Palabras clave: comportamiento legislativo, congruencia, presiones cruzadas, América Latina.

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Introduction

The extent to which members of congress (MCs) follow the party line can affect parties' ability to deliver their promises advertised on the party label and thus affect the nature of public policy and accountability to voters (Bowler *et al.*, 1999; Carey, 2007, 2009; Andeweg and Thomassen, 2011). However, parties, individual members of congress, and voters may not always be aligned in their preferences, thus leading to potential deviation from the party line and overall less party unity. How does the tension between the party and the median district voter's policy position affect an MC's propensity to follow the party line?

Based on legislator and citizen surveys from the Proyecto de Élités Parlamentarias Latinoamericanas (PELA) and the Latin American Public Opinion Project (LAPOP) from one legislative period,¹ this paper argues that the extent to which MCs are loyal to the party line *versus* the district is contingent on the party's distance from the district median. The findings show that legislators only claim to deviate from the party line in favor of district preferences as the party position moves closer to the median district voter. Robustness checks support this finding: As the party position moves closer to the median district voter's position, MCs are less likely to value party discipline, they are less in favor of sanctioning mavericks by expelling them from the party, and they attach greater value to obtaining resources for their districts. Additional findings show that MCs tend to be more party-loyal as district magnitude (M) increases and amongst members of the presidential party/coalition.

The puzzle is relevant in Latin American presidential democracies, where MCs face differ-

ent incentives to follow the party line compared to members of parliament in Western Europe or US congressmen, and where reforms have aimed at calibrating the balance between collective and individual accountability (Carey, 2007, 2009). In the US, congressmen elected in single-member districts take their district voters' preferences into account given that they can be individually sanctioned for disregarding them when the party position differs. Studies have found that parties in Latin America sustain high levels of party discipline and party unity (Morgenstern and Nacif, 2002), yet MCs are nonetheless rooted in their districts (Carey, 2007, 2009).² When deciding how to vote, MCs must take diverse policy preferences into account, yet it is not clear whether the tension between their main principals' (voters and parties) policy positions systematically affect their disposition to follow the party line. This question is especially relevant in party systems that are less institutionalized (Mainwaring and Torcal, 2005; Mainwaring, 2018) and less programmatic (Roberts, 2012) compared to the US or Western Europe. While ideological proximity between MCs and voters has been analyzed in Latin America (Saiegh, 2014, 2015), the effect of ideology at the party and district level has not yet been examined to explain party *versus* district loyalty from a comparative perspective. This paper's empirical findings shed light on the issue of how the tension between multiple principals (*i.e.* the median district voter and the party) affects individuals within legislative party and the overall multi-step process leading up to party unity.

The article examines party-district voter policy agreement based on the left-right dimension and its effect on an MC's claimed voting behavior. Despite their potentially biased responses, survey data can provide a systematic comparison

¹ Argentina (2007-2011), Bolivia (2010-2014), Brazil (2007-2010), Chile (2010-2014), Colombia (2010-2014), Costa Rica (2010-2014), Ecuador (2013-2017), El Salvador (2012-2015), Guatemala (2012-2016), Honduras (2010-2014), Mexico (2009-2012), Nicaragua (2012-2017), Panama (2009-2013), Paraguay (2008-2013), Peru (2006-2011), and Uruguay (2009-2014). The data are derived from the University of Salamanca's Parliamentary Elite Project (PELA) and district-level data from the University of Vanderbilt's Public Opinion citizen survey (LAPOP) collected in the same countries with comparable survey items.

² Overall, the literature on Latin American countries has identified the role of party discipline, district voters, presidents, and the role of further principals such as subnational actors (*e.g.* governors) or parties on the regional level in the extent to which MCs are loyal to the party line (Morgenstern and Nacif, 2002; Samuels, 2003; Crisp *et al.*, 2004; Desposato, 2006; Carey, 2007, 2009; Langston, 2011; Langston and Rosas, 2011).

of intraparty heterogeneity by asking MCs themselves regarding their political preferences. The finding is relevant for district- and party-level representation in Latin America, where comparative empirical research and systematic findings on the links between MC, district and party positions and their impact on MCs' party *versus* district loyalty are scarce (Alemán, 2013).

Defining the concepts: mc-principal loyalty as the dependent variable

Party loyalty has been analyzed from various perspectives: party cohesion (Close and Núñez, 2017; Depauw and Martin, 2009), party unity (Sieberer, 2006; Carey, 2009), or party discipline (Bailer, 2011). These concepts have been often used interchangeably on both the individual and party level, but they have been approached as different steps in a sequential process (Krehbiel, 1993; Andeweg and Thomassen, 2011; Close and Núñez, 2017; Hazan, 2003; Kam, 2009; Van Vonno *et al.*, 2014). According to this logic, *cohesion* is understood as the general agreement within a party organization on certain issues (Kitschelt and Smith, 2002; Giannetti and Benoit, 2009). By contrast, *party unity* [behavior] is a result of cohesion [agreement in preferences] and discipline [the extent to which parties keep their MCs in line] (Sieberer, 2006; Giannetti and Benoit, 2009). While agreement and loyalty are voluntary behavioral strategies, discipline is involuntary (Andweg and Thomassen, 2011), and both party cohesion or loyalty [a legislator's disposition with the party line] vary more than party unity (Van Vonno *et al.*, 2014).

The concepts also imply two levels of analysis: the level of the party and the individual representative. At the individual level, party loyalty is understood as an individual MC's disposition to follow the party line (Andweg and Thomassen, 2011; Carey, 2009), thus affecting overall party unity [the extent to which parties vote in unison]. Cohesion refers to the party level, while *congruence* is useful to theoretically distinguish the individual level and the extent to which parties agree based on an MC's absolute distance from their principals' policy positions (*e.g.* Golder

and Stramski, 2010).³ The literature on unity, loyalty, cohesion and agreement are thus inter-related but imply a distinction between *a)* the sequential order and *b)* the party and individual level. The effect of agreement on party loyalty additionally has an underlying temporal dimension: it can depend on several situational factors, on the salience of certain issues, and the stage in the electoral cycle (Stimson *et al.*, 1995; Giannetti and Benoit, 2009; Traber *et al.*, 2014). The main interest lies in uncovering how MCs resolve the tension between the party and district—the main principals they are accountable to. Party loyalty is often complicated by the tension between individual responsiveness to MCs' districts or collective action demanded by the party via party discipline (Carey, 2009: 29).

Parties, the main principal controlling the resources throughout an MC's career, expect MCs to be loyal to the party label in exchange for perks and career opportunities. *District voters* also expect MCs to be responsive by providing goods and representing their preferences in legislative votes—two of the main ways MCs can influence governmental output (Ashworth and Bueno de Mesquita, 2006; Carroll and Kim, 2010). The extent to which legislators engage in these activities sends different signals to their district voters and parties and can have consequences for their future career goals. The way individual deputies are inclined to vote depends mostly on the possible sanctions, *i.e.* the rewards and costs associated with party leaders, and the extent to which MCs' preferences are homogenous (Bowler *et al.*, 1999; Kam, 2001; Andeweg and Thomassen, 2011; Sieberer, 2006).⁴ An individual MC is loyal to the party when avoiding sanctions by the party or when the preferences are in line with fellow partisans. When other interests conflict with the

³ Others also refer to agreement as the absolute distance to *e.g.* the party's policy position (Kam, 2009; Andeweg and Thomassen, 2011).

⁴ This question has also been addressed by the literature on representational roles (*e.g.* Önnudottir, 2014) in which MCs adopt roles as partisans, delegates or trustees based on the extent to which they act according to party, district or their own preferences. This vast body of literature not further addressed in this paper.

party line, MCs should consider potential repercussions for deviating from the party line and the label under which they were elected (Sieberer, 2006; Andeweg and Thomassen, 2011; Van Vonno *et al.*, 2014). Perfectly loyal partisans with the same or similar preferences as the party do not face a dilemma and should opt for the party's position, especially when the district voters hold the same position. The opposite extreme implies voting against the party line due to their own or their district conflicting preferences or opting for abstention or absences by not taking an explicit stance. One of the reasons MCs may deviate from the party line is that they face strong public opinion in their district (Andeweg and Thomassen, 2011; Van Vonno *et al.*, 2014). MCs generally share some values with their voters, who in turn use candidates' postures and party affiliations as voting cues. Hence, MCs that are attuned to district preferences might consider it necessary to oppose their party on certain issues and claim personal credit for policies (Mayhew, 1974). The main explanatory factors behind the effect of agreement on an MC's loyalties include the electoral system, party-level factors, and individual factors such as ambition.⁵

The effect of party-district congruence on party loyalty in Latin America

Electoral systems are one of the main institutions expected to foster incentives to cultivate a reputation amongst constituents *versus* being a loyal party candidate. The assumption is that party loyalty increases in proportional representation compared to plurality electoral systems (Mayhew, 1974; Cain *et al.*, 1987; Bowler *et al.*, 1999), or the list tier of mixed-member systems (Heitshusen *et al.*, 2005; Sieberer, 2010). More

⁵ Typical factors that could affect party loyalty include regime type, multiparty *versus* single party governments (Carey, 2007, 2009), government *versus* opposition (Hix and Noury, 2016), agenda-setting capabilities of parties or presidents (Figueiredo and Limongi, 2000; Alemán, 2006; Sieberer, 2006) or other parliamentary incentives such as mega-seats (Martin, 2014), or party power to convince MPs to support the median member of the majority party to minimize deviation from the party line (Cox and McCubbins, 1993).

specifically, MCs deviate from the party line in electoral systems where party leaders exert weak control over nominations, where legislators compete with co-partisans for preference votes, where votes are not pooled, and in large districts [if electoral system promotes personal vote-seeking] (Carey and Shugart, 1995). Most research on the effect of congruence on party *versus* district loyalty is based on single-member districts in the US context, where individual MCs can be held personally accountable for shirking district preferences and ambitious MCs who seek long careers in Congress are more likely to give precedence to the district in their votes when their preferences are aligned.

Research has shown that MCs' own preferences and their perception of constituency preferences determine the direction of their votes (Miller and Stokes, 1963; Butler and Nickerson, 2011), and district voters evaluate and hold their MCs to account based on perceived agreement (Ansolabehere and Jones, 2006, 2010). MCs can thus not only be held accountable for shirking and suffer electoral losses, but a certain degree of district representation is also expected from a legislator (Cain *et al.*, 1987; André *et al.*, 2015). MCs should have an idea about where the median district voter stands, as well as the density of the distribution (Fiorina, 1974; Bailey and Brady, 1998; Gerber and Lewis, 2004; Harden and Carsey, 2012) in weighing advantages of siding with the district *versus* the party. However, the literature has paid less attention to contexts that deviate from the assumption that MCs are elected in single-member districts and seek reelection.

In Latin America, the effect of district preferences on MCs' propensity to follow the party line *versus* siding with the district is not as straightforward for several reasons. First, in presidential democracies more generally, parties are overall less cohesive (Giannetti and Benoit, 2009), and MCs might have policy positions that coincide with those of further principals such as the president, who can also demand support from legislators when mustering support for a vote specific issues (Samuels, 2003, 2011). Second, MCs in most Latin American districts are elected in

multi-member districts rather than single-member districts. Multimember districts make it more difficult for a voter to punish an individual MC since there are several candidates running on the same party label. This minimizes the weight of the median districts voters' position in an individual legislator's decision-making process given that they cannot, for the most part, be individually sanctioned by voters. Relatedly, Siavelis and Morgenstern (2008) argue that even in open-list systems, MCs in Latin America have less incentives to cultivate a personal reputation amongst district voters in the long-term. In this case, it is more likely that the *party* be punished for shirking the districts' preferences, which is why parties as collective actors benefit from choosing candidates that are strong in their districts to improve the reputation of the party (Alemán, 2013; Alemán and Tsebelis, 2016). Third, MCs also benefit from doing a good job in their district by improving their own reputation within the party to be further promoted in their political career. Career paths are more dynamic in the Latin American context than in the US, making the stint in the legislature only one of many possible avenues to pursue. Incumbents should have strong incentives to allocate time to preserving their core constituency, while legislators seeking other offices have much weaker incentives to do so. For instance, MCs aiming for national executive office might be more party-loyal (Kerneck, 2015), while MCs with regional experience or regional-level office goals might be more likely to defect from the party line or support district-biased legislation (Samuels, 2003, 2011; Langston, 2011; Langston and Rosas, 2011; Micozzi, 2013; Chasquetti and Micozzi, 2014). Especially in countries where legislators cannot be reelected, MCs have fewer incentives to be responsive to their district voters because they do not necessarily suffer the consequences for shirking them. For instance, Taylor (1992) showed that in Costa Rica, MCs engaged in district representation as a strategy to improve their reputation in the party and being promoted to more attractive posts. In sum, parties have strong incentives to choose candidates that will perform well in their dis-

tricts. Failure by legislators to attend to local, sectoral, and even individual constituent demands can leave national leaders sitting atop organizations with no electoral support (Carey, 2009: 32). From the individual perspective, MCs do not, for the most part, face strong incentives to build a personal reputation in their districts and are rather confronted with incentives to cultivate their reputation in the party. However when asked in surveys, MCs in Latin America often claim to give precedence to district voters (Carey, 2009; Marengi, 2010). I argue that MCs are more likely to claim to side with their district when the party is closer to the median district voter's position. When party and district preferences are aligned, MCs thus do not face the potential dilemma of choosing sides and should be more likely to claim they will side with the district. If the party diverges from the district median, the cross-pressures increase, thus increasing the potential sanctions for deviating from the party line. I posit that: "As party-district congruence increases, MCs are more likely to claim (in the survey) that they side with the district versus the party".

Of course, the extent to which party-district congruence affects MCs' loyalty depends on the type of party, specifically regarding on the centralization and inclusiveness of its candidate selection procedures (Rahat and Hazan, 2001). More centralized and less inclusive procedures leave selection in the national parties' hands, increasing the possibility that those selected have national partisan interests, or that parties select candidates that are loyal to the party but will also perform well in their districts. In this vein, Crisp and Desposato (2004) showed that in Colombia, differences in constituency-building depended on the parties' availability to demand cohesive behavior based on the logic that in weak party systems, incumbents achieve a win-win by avoiding conflict while in strong party systems, parties operate in a zero-sum game. While I do not put forth a hypothesis regarding the effect of party strength or candidate selection processes, I later control for the effect of party centralization and inclusiveness in the robustness checks.

Data and variables

The use of roll call votes (RCVs) to measure legislator congruence with their parties and party loyalty is widespread, especially in the US (Poole and Howard, 2000) or in the European Parliament (Hix, 2002; Hix *et al.*, 2005, 2009; Bowler and McElroy, 2015). Yet RCV-based measures can be problematic for various reasons: First, parliament rules and procedures differ greatly (even over time and between chambers), making comparison difficult (Hug *et al.*, 2015). Another issue deals with the selection bias or strategic use of roll-call votes that publish only a portion of all legislative votes taken place (Carrubba *et al.*, 2006, 2008; Crisp and Driscoll, 2012; Hug *et al.*, 2015). Furthermore, legislative behavior often does not even reflect real preferences of legislators that may have joined the bandwagon in a certain vote, making it impossible to know their real preferences. RCVs continue to be widely used to estimate parties' policy positions, but scholars have moved away from relying solely on such data. Other approaches have included drawing on the Wordscore as a valid technique to estimate policy positions (Laver *et al.*, 2003; Laver, 2014).

Attitudinal data also offers a valuable alternative for analyzing legislators' preferences, and scholars have encouraged their use as a reliable source to tap into legislative party positions (Saiegh, 2009; Laver, 2014). Attitudinal data provide direct empirical information on MCs preferences in a standardized way. Given that elites from different parties answered same questions, researchers can construct measures that allow comparison of parties cross-nationally and on different levels of aggregation. The downside of surveys is that, despite being anonymous and independent of party or voter pressure, the legislators that actually respond to surveys may be atypical and possibly strategic or biased in their responses. For instance, Marenghi (2010) points out that legislators might exaggerate the extent that they represent their district in legislative votes while barely engaging in other types of district activity. Despite some of the disadvantages, surveys are now widely

available but underused to measure legislators' positions (Laver, 2014).

Until now, comparable data on intraparty preferences other than survey data for the Latin American region is lacking or only available for a limited set of countries. Survey data measures party loyalty based on the MCs anonymously expressed preferences and attitudes rather than the results of a legislative vote that has been subject to party discipline. Despite the pitfalls associated with RCVs discussed above, drawing on RCVs is a widespread approach. This paper is based on the assumption that RCVs *versus* surveys are measuring different phenomena and steps in the sequential process leading to party unity. Since surveys measure party loyalty based on attitudes and RCVs measure actual voting behavior after being subject to party discipline, crosschecking with roll call data would most likely provide differential results.

This paper draws on attitudinal data from the Latin American Parliamentary Elite Project [in Spanish: Proyecto de Élités Parlamentarias Latinoamericanas (PELA)], which has carried out face-to-face interviews with MCs at the beginning of each legislative period. The PELA surveys have been crucial for filling the gap on comparable data in the region (Luna, 2007; Roberts, 2012). It also draws on the University of Vanderbilt's Latin American Public Opinion Project that regularly carries out interviews amongst Latin American citizens.⁶ Citizens and legislators were surveyed in a similar time frame (see Table 1). The analyses include data from one legislative period in 16 countries, 242 districts, and 91 parties, and 843 MCs. While some of the countries with larger parliaments (*i.e.* Mexico or Brasil) have low response rates, the PELA project includes a representative sample of all parties represented in each congress. In the case of Argentina, no data for the Buenos Aires province were available in the LAPOP data, which is why the sample loses several legislators from that province.

⁶ Thanks go to the University of Vanderbilt's Latin American Opinion Project (LAPOP) and its major supporters (the United States Agency for International Development, the United Nations Development Program, the Inter-American Development Bank, and Vanderbilt University).

TABLE 1. Sample overview (PELA and LAPOP data)

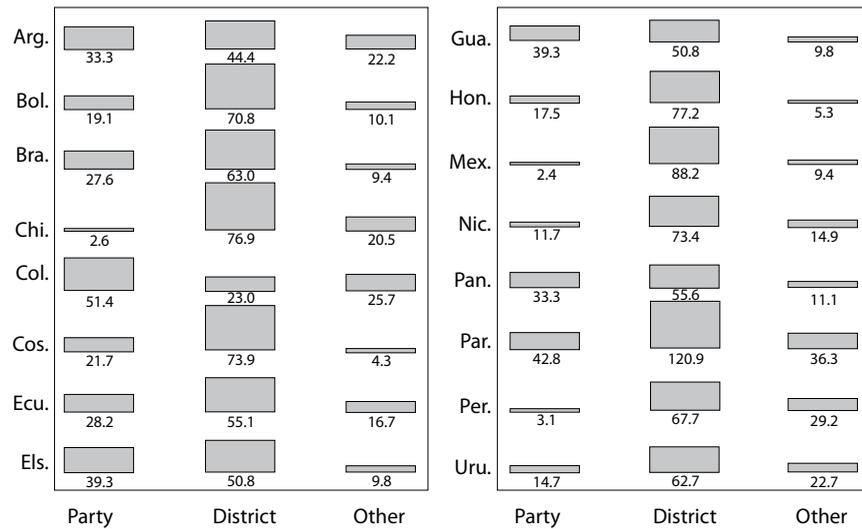
Country	Legislature	Survey year	Fieldwork year	Fieldwork year	Number of observations	Share of chamber*	Number of observations
(PELA Survey in parentheses)	PELA	LAPOP	LAPOP	PELA	LAPOP	PELA (%)*	PELA (N)
Argentina (Survey 73)	2007-2011	2010	2010	2010	1370	27	68
Brazil (Survey 75)	2007-2011	2007	2008	2010	1497	26	129
Bolivia (Survey 81)	2010-2014	2010	2010	2010	2716	75	93
Chile (Survey 77)	2010-2014	2010	2010	2010	1614	70	86
Colombia (Survey 83)	2010-2014	2010	2010	2010	1412	55	74
Costa Rica (Survey 78)	2010-2014	2010	2010-2011	2010	1507	98	49
Ecuador (Survey 90)	2013-2017	2012	2010	2013	1500	76	80
El Salvador (Survey 88)	2012-2016	2012	2012	2012	1497	74	62
Guatemala (Survey 85)	2012-2016	2012	2012	2012	1509	55	65
Honduras (Survey 74)	2010-2014	2010	2010	2010	1416	70	86
Mexico (Survey 79)	2009-2012	2010	2010	2010	1418	26	98
Nicaragua (Survey 86)	2012-2017	2012	2012	2012	1686	57	52
Panama (Survey 71)	2009-2013	2010	2009	2010	1536	90	61
Paraguay (Survey 69)	2008-2013	2008	2008	2008	1166	72	65
Peru (Survey 80)	2006-2011	2012	2010	2010	1380	67	78
Uruguay (Survey 76)	2010-2015	2010	2010	2010	1500	80	79

Source: PELA and LAPOP. *The share of chamber refers to the percentage of the chamber that was interviewed. The table also distinguishes between fieldwork year and survey year because these are not the same in all cases.

The dependent variable measures whether an MC posits to side with the district or the party in floor votes, thereby measuring the propensity to follow the party line *versus* side with the district in cases of conflict. The PELA survey does not include a question on the frequency with which such a conflict may arise, the question nonetheless taps into how MCs might behave when they face a conflict even if it does not occur that frequently. In countries in which party groups do not demand discipline on votes, it could be assumed that legislators do not face such the conflict of choosing between the party position and other conflicting positions. However, in Latin America, most votes are subject to discipline, unless they relate to conscience issues or if the votes are not pivotal. Party groups in Latin America meet at least weekly when the legislature is in session to establish whether there is to be a group

position on each issue, and what those positions will be. Party groups are subordinate to national party organizations, and generally can be instructed by them as to how to vote on specific issues (Carey, 2009: 22). Given the importance of party discipline in Latin America and the lack of electoral incentives (in most countries) to cultivate a personal reputation, it is remarkable that the MCs favor their district voters in their claims. The variable draws on the following PELA survey question: “when there is a conflict between your district and your party’s position, how do you usually vote?” Figure 1 contains the distribution of the dependent variable. The country name is indicated by the first three letters. The figure shows that the district overrules the party in floor votes in most countries besides Colombia. For the analysis, I exclude the “other” category from the analysis since the theoretical interest resides

FIGURE 1. MCs' claimed behavior when facing cross-pressures (shares by country based on PELA data)



Source: PELA.

in siding with the district (coded as 0) *versus* the party (coded as 1).⁷

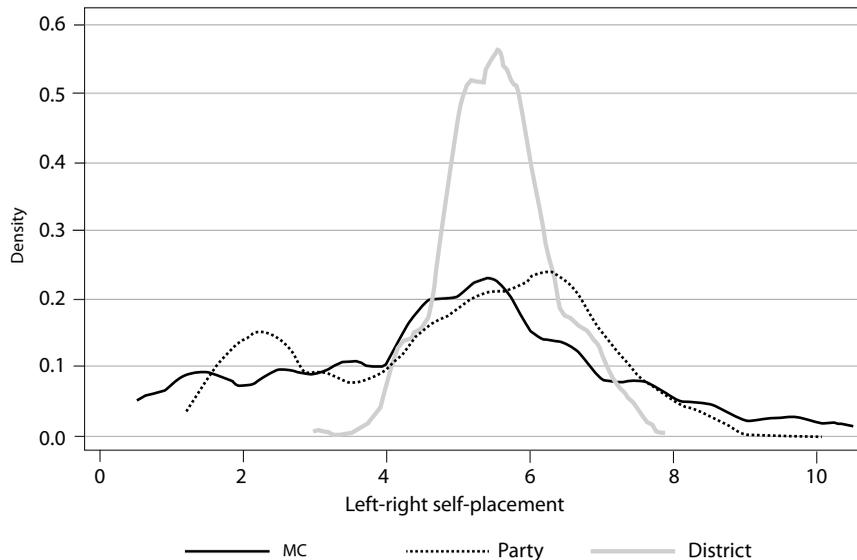
The main explanatory variable (party-district congruence) draws on MC and citizens' left-right placement and is specified as follows. I draw on MC and citizens' left-right self-placement scaled from 1 to 10. The left-right scale is the starting point of party competition (Downs, 1957), however a potential problem relating to the use of left-right self-placements relates to differential item functioning (DIF). DIF occurs when people from different groups with the same ability have different probabilities of giving a certain response. While DIF could be problematic, I later use country- and district-level fixed effects which could cancel out explanatory power coming from cross-country variation. Overall, findings regarding the relevance of the left-right dimension in Latin America have been mixed, and some scholars have reservations about whether voters interpret the left-right scale in a similar way as politicians. However, several scholars have em-

pirically shown that political elites (Rosas, 2005; Zoco, 2006) and voters (Wiesehomeier and Doyle, 2012) have a coherent understanding of the ideological meaning of its meaning in Latin America. The PELA survey item phrases the question as follows "Considering your political views, where would you place yourself on this scale [on a scale from 1 to 10]?" The legislators' placement is hence where they place themselves on this scale, while the party left-right placement is the mean of the legislators' positions by political party. The question in the LAPOP survey is also measured on a 1-10 scale and is phrased as follows: "When referring to political tendencies, many people speak of sympathizing with the left or right. According to your understanding of left and right when considering your political views, where would you place yourself on this scale? I create two congruence variables: *a*) one measures (for descriptive purposes) the absolute distance between the MC and the district median position,⁸ and *b*) another measures the absolute

⁷ I control for whether the effects stay the same by including the "other" category. Since the effects remain the same, I do not include this model in this paper, but results are available from the author.

⁸ I also previously drew on the district mean in line with Bailey and Brady (1998). However there was no substantial difference between drawing on mean *versus* median scores.

FIGURE 2. MC, party and district left-right self-placement. Kernel density estimate



Source: PELA and LAPOP.

distance between the mean party position and the district median. The congruence scores are then based on the absolute distance from the district median and multiplied by -1.

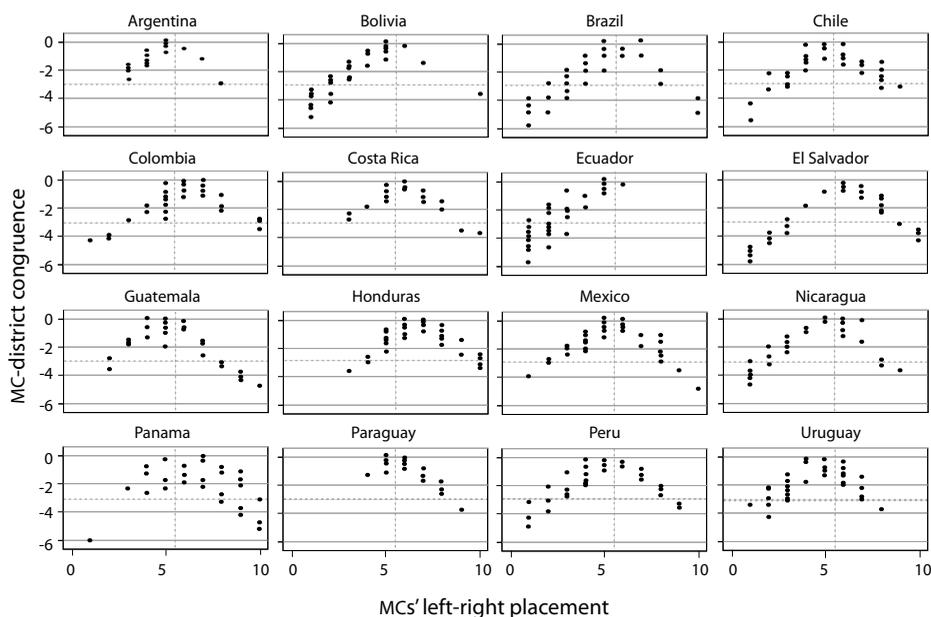
Measuring subnational preferences has been a challenge, often conveying non-representative preferences for the district as a whole (Erikson, 1978). Here, the LAPOP response rates by district provide rather high sample sizes (see the Appendix). The variable in the LAPOP survey mainly picks up on the geographical district, which in most cases corresponds with the electoral district specified by the MC in the PELA survey. Let us draw on an example from Brazil: a Brazilian MC from the electoral district São Paulo corresponds with the geographical region São Paulo in the LAPOP survey. I thus draw on the median position from São Paulo. In countries with a national district, I use the national median position for that district. In countries with a mixed-member system (e.g. Mexico or Bolivia), the link between the district and the MC is not as straightforward since MCs are elected on two different types of tiers. To be more specific, an MC from the certain state might be on the national party list *or* elected in a single-member district. The LAPOP and PELA sur-

veys do not distinguish between multimember and single-member districts in these two countries. In these two cases, I still draw on MCs' districts (the electoral district variable in the PELA dataset) and the median for the same geographical district in the LAPOP dataset. The district median in mixed-member systems therefore taps into the median of the geographical district rather than the electoral district. For instance, if the MC's electoral district in the PELA survey is Aguascalientes, I draw on the median from Aguascalientes in the LAPOP survey. In order to account for the electoral district, I control for tier type.⁹ Since the tier type did not have an effect on the results, I did not include this in the final model. I additionally ran the models without the mixed-member systems, but the effects remained the same.

Figure 2 displays a Kernel density plot which is essentially a smooth version of a histogram.

⁹ Since the PELA dataset also does not include information on the tier that a given MC in Mexico and Bolivia was elected by, I identified the MCs elected in single-member districts by drawing on their district, party, gender, and committee membership and controlled for the tier type. The tier type is also included in the district magnitude variable since single-member districts are coded as 1.

FIGURE 3. MC-district congruence based on MCs' left-right self-placement



Source: PELA and LAPOP.

The plot displays the left-right self-placement of MCs, parties (mean MC left-right placement by party), and district (median left-right placement by district). The figure shows that there is a considerable overlap in the MCs' policy preferences and the parties' mean policy preferences. The median district voter's position is concentrated around the center and less spread across the ideological spectrum as the MCs and their parties.

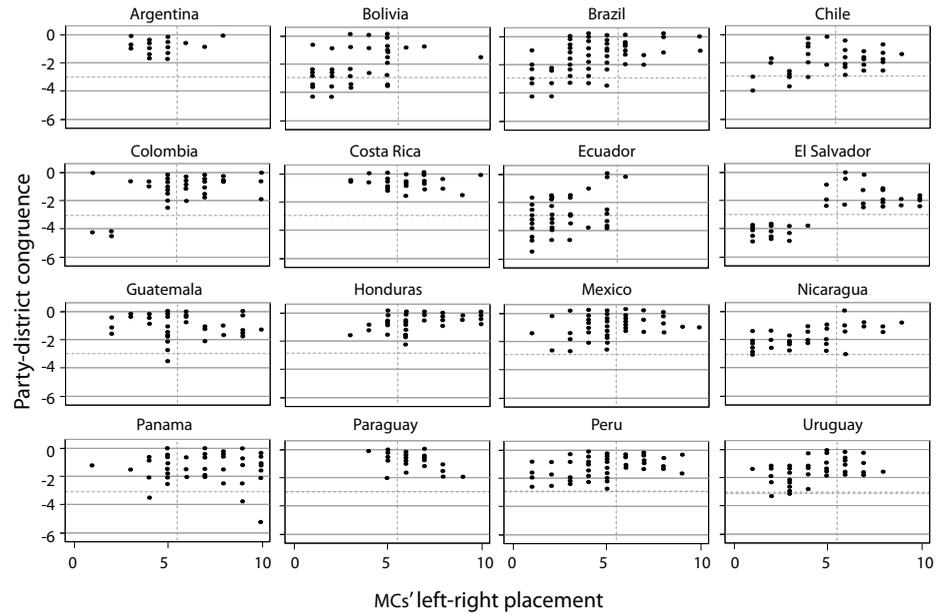
It may be that on the very left and the very right, leftist parties, rightist parties, and MCs are more likely to coincide in their placements due to the bounds in the scale (and hence fewer numbers to choose from). To assure I include information on the MCs and parties at the extremes of the ideological scale, Figures 3 and 4 display the MC-district and party-district congruence based on the MC's left-right placement. Figure 3 shows that MCs are not more ideologically congruent at the ideological extremes. Instead, at both ideological extremes, MCs are less congruent with their district median, while they are most congruent at the center of the left-right scale.

Figure 4 shows that parties across the ideological spectrum are generally relatively congruent

with the district median, especially in Argentina, Costa Rica, Honduras, and Paraguay. In the remaining countries there are several MCs whose parties are less congruent with their districts, especially left of the ideological center (except for, *e.g.* Panama). However, unlike Figure 3, there is not a clear tendency of congruence in function of the left-right scale at the ideological extremes.

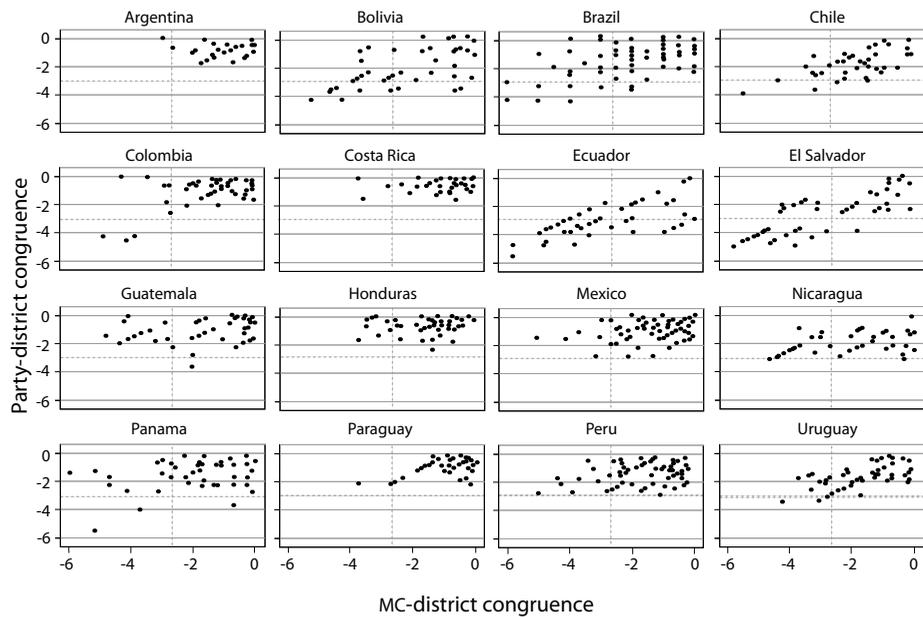
In order to explore the intra-country variance of MC-district and party-district congruence, Figure 5 shows the distribution of MC-district and party-district congruence in a two-way scatter plot by country. The figure shows that both congruence scores are relatively high amongst MCs in some countries, while in some they are more spread out. In countries such as Argentina, Honduras, or Paraguay almost all MCs are in the upper-right square, meaning they and their parties are highly congruent with their districts. MCs with lower congruence scores are found in Ecuador or El Salvador, where several MCs are located in the lower-left square. Overall, parties are highly congruent with the median district voter, while in several countries, MCs are less congruent with their districts rather than their parties. Both

FIGURE 4. Party-district congruence based on MCs' left-right self-placement



Source: PELA and LAPOP.

FIGURE 5. Party-district and MC-district congruence



Source: PELA and LAPOP.

TABLE 2. Descriptive statistics

Variable	Mean	sd*	Min	Max
Congruence (left-right scale)				
MC-district congruence*	-1.80	1.50	-6.00	0.00
Party-district congruence	-1.50	1.40	-5.60	0.00
Control variables				
District magnitude (M)	20.80	25.30	1.00	99.00
District magnitude (M) logged	2.40	1.20	0.00	4.60
District heterogeneity	2.30	0.49	0.82	3.70
Incumbent	0.36	0.48	0.00	1.00
President's party/coalition	0.54	0.50	0.00	1.00

Source: PELA and LAPOP. Data on district magnitude were collected from secondary sources (e.g. government websites). *Note:* This table displays the mean, standard deviation (SD), and minimum/maximum values for each variable. *MC-district congruence is included for descriptive purposes but it is excluded from the statistical analyses.

scores correlate strongly (correlation coefficient = 0.63), however the variance inflation factor scores (VIF) for all variables in the analysis are quite low (VIF < 2). I only include the variable most pertinent to the hypothesis in the analyses: party-district congruence.

Table 1 displays the sample size per country, and the Appendix displays sample sizes by district for each of the variables included in the analysis.¹⁰ The hypothesis is based on congruence between parties and districts, thus calling for some institutional, party, and individual variation in the responses. First, I control for M. M is an important predictor of loyalty insofar as it has an impact on incentives to cultivate personal brands apart from the party's brand. It also likely to drive congruence with district voters since it is easier to be incongruous with district voters if the MC is one out of many representatives instead of the sole representative. In addition, I control for district heterogeneity. In homogeneous districts, the party can adapt more easily and does not risk losing votes from voters with alternate preferences and a heterogeneous district can send a blurred view of their positions,

making it easier for an MC to side with fellow partisans since district stances are not clear. I draw on the standard deviation of responses within districts in the LAPOP survey in line with Bailey and Brady (1998). Note that I compared these with Van der Eijk's (2001) agreement scores but this did not change results.

Several individual variables regarding the individual MC could additionally influence whom a legislator sides with in a floor vote, all of which are drawn from the PELA survey and coded as binary variables. Incumbency is measured by the PELA survey question that asks whether it is the MCs' first time elected to parliament (1 = no, 0 = yes). This variable does not capture *when* the MC was previously elected to Congress, but whether an MC is new to Congress or not. Membership of the presidential party or coalition draws on the PELA survey that asks whether an MC considers him/herself a member of the presidents' party or coalition (1 = member of presidential party or coalition). Incumbency and membership of the president's party or coalition are embedded in the assumption that the most valuable or senior members receive more benefits than back-benchers (Balla *et al.*, 2002), and that members of the presidents' party have more advantages than the other parties given the agenda-setting power of presidents in most Latin American countries (Alemán, 2006). Table 2 provides a descriptive

¹⁰ Given the general high sample sizes across districts, I kept all of them in the dataset. Dropping all cases with less than 30 responses did not change the substantive results, so all districts (including districts with fewer than 30 responses) remain in the analysis (except for districts for which data were not available).

overview of the variables used in the analysis by providing the mean, standard deviation, minimum and maximum values of each variable.

Results

Given the dichotomous nature of the dependent variable [the propensity of siding with the party *versus* the district], I draw on binary logit models. Some scholars have questioned the usefulness of multilevel models for analyses with such few countries (*e.g.* Stegmueller, 2013), so I run several models in order to find out which model is the most accurate. Crosschecking different models is crucial since legislators are nested in districts, and countries, implying variation at different levels. The two most important levels are clearly the country and the district since parties and MCs compete on the national level and in districts. I thus ran a model including country-level random intercepts and another including district-level random intercepts. I do not include a three-level model since the variance component on the district level in this model was extremely close to zero. When comparing the predictability of the different models, the latter (the model with district-level random intercepts) performed the best (ROC curves are in the Appendix).

Table 3 shows stable results that hold across models 1-3. Models 1-3 support the hypothesis that as an MC's party becomes more congruent with the preferences of an MC's district, the MC is more likely to side with the district *versus* the party. This finding provides support for the hypothesis that posited that MCs are more likely to side with the district versus the party when the party and district have similar policy preferences. In other words, as district and party preferences become less aligned, MCs are less likely to take the risk of siding with the district when there is a conflict.

Across the models, two control variables have significant effects: membership of the presidential party/coalition and district magnitude. The Appendix displays these effects. Model 1 and model 3 in their baseline form suggest that MCs in heterogenous districts are more party-loyal as

one would expect. However, this effect is not stable across all models. Further models (not included in this paper) controlled for several additional potentially confounding variables. Given that the effect of M depends on the ballot type, I also controlled for the ranking of incentives to cultivate a personal vote based on Carey and Shugart (1995) and Johnson and Wallack scores (2008). In the final models, I include only district magnitude since this variable provides more information on the district-level. I also controlled for the extent to which the party controls candidate selection processes and how centralized candidate selection processes are by drawing on the mean expert score from the Democratic Accountability Project (Kitschelt, 2013). I do not include these variables in the final model since it did not have a significant effect or change findings, and given that including these data significantly decreased the N in the analyses since data for all parties were not available. The interaction with congruence provided evidence that, as parties become less inclusive in their selection processes and more congruent with the district, MCs claimed to side more with the district, meaning that as party control over candidate selection increases in districts where parties are more congruent with voters, MCs are more likely to be district- *versus* party-loyal. However, this is not further explored here. Additional robustness checks included presidential agenda-setting power, MC-party, MC-party voter and MC-president congruence, however, results remained stable. MC-party congruence made the effect of party-district congruence stronger, while MC-president and MC-party voter congruence had no effect. Given that most districts in Latin America are multi-member districts, I also control for the mean position of MCs from a given district and their congruence with the district median —this had no significant effect and results remained stable.

The models show that variance on the country and the district level are quite high. The intraclass correlation coefficient scores (the extent to which answers correlated within countries and districts) are 21-23 points at the country level

TABLE 3. The effect of party-district congruence on party loyalty

	Baseline	Full	Baseline	Full	Baseline	Full
Congruence						
Party-district congruence		-0.29(0.07)***		-0.32(0.10)**		-0.34(0.09)**
Control variables						
District heterogeneity	0.33(0.17)**	0.25(0.17)	0.16(0.24)	0.10(0.24)	0.43(0.22)*	0.32(0.22)
District magnitude (<i>M</i>)	0.21(0.07)**	0.24(0.07)***	0.26(0.09)**	0.28(0.10)**	0.20(0.09)**	0.24(0.09)
Incumbent	0.23(0.17)	0.21(0.17)	0.23(0.20)	0.23(0.20)	0.23(0.19)	0.21(0.20)
Presidential party / coalition	0.73(0.17)**	0.58(0.18)**	0.79(0.19)***	0.62(0.20)**	0.84(0.19)***	0.66(0.20)**
Constant	-2.9(0.44)***	-3.2(0.45)***	-2.9(0.67)***	-3.1(0.67)***	-3.4(0.60)***	-3.6(0.60)***
Random intercepts						
Country			0.99(0.22)	0.94(0.21)		
District					0.89(0.17)	0.88(0.17)
Intraclass correlation coefficient						
icc Country			0.23(0.08)	0.21(0.07)		
icc District					0.19(0.06)	0.19(0.06)
McFaddens R ²	0.04	0.06				
Log Likelihood	-453	-445	-413	-407	-443	-435
AIC	918	902	839	830	899	885
BIC	942	931	867	863	927	918
N (Country)	16	16	16	16	16	16
N (District)	242	242	242	242	242	242
N (MCs)	843	843	843	843	843	843

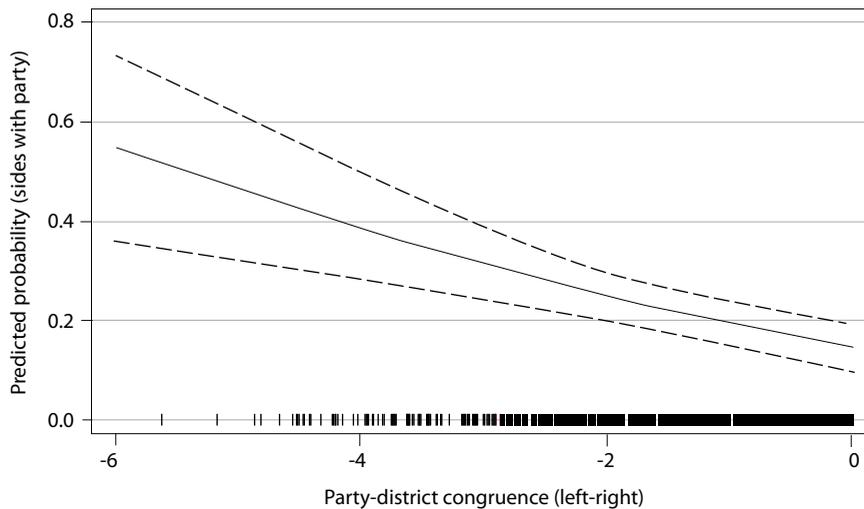
Source: PELA and LAPOP. Data on district magnitude were collected from secondary sources (e.g. government websites). ***p<.001, **p<.05, *p<.1. ICC, interclass correlation coefficient; AIC, Akaike's information criterion; BIC, Bayesian information criterion.

and slightly lower with 19 points at the district level. Log-likelihood scores presented here in both cases are indicative of a slightly better fit of the full *versus* the baseline models. The Akaike's Information Criterion (AIC) and the Bayesian Information Criterion (BIC) scores are also indicative of the model fit, generally pointing to "the smaller, the better". Here, models 2 and 3 have the lowest AIC scores in their full form rather than the baseline models, and BIC scores increase in the full iterations of model 3.

The Receiver Operative Characteristic curve (ROC curve) is a useful tool to further examine the predictive power of the models. The measures of accuracy are sensitivity (true positive

rate) and specificity (true negative rate) (Zou *et al.*, 2007: 654). The closer the curve comes to the 45 degree diagonal of the ROC space, the less accurate the test, and an area of 1 represents a perfect test. The Appendix displays the ROC curves for each model. While all curves provide evidence for relatively accurate models, the rule performs most accurately for model 3 which accounts for district random intercepts. The area curves in model 3 have the highest scores at 0.830 (baseline) and 0.833 (full model). Since model 3 outweighs the performance of the other two models, a further exploration of the significant effects are based on this model. The ROC curves are displayed in the Appendix.

FIGURE 6. The effect of congruence on party loyalty. Marginal effects with 95 per cent CIs



Source: PELA and LAPOP.

Figure 6 shows the marginal effects of party-district congruence on the propensity to side with the party *versus* the district. The figure shows that, for every one-unit increase in the congruence score, the probability of siding with the party decreases by 5 percentage points. As congruence increases, the effect grows slightly weaker. Overall, there is a 41 per cent decrease in probabilities of siding with the party *versus* the district between the minimum and maximum values of the party-district congruence score. The results thus provide strong support that as congruence between an MC's party and the median district voter increases, MCs are more likely to side with their district when district and party preferences conflict. Regarding the two main control variables, the results show that members of the presidents' party or coalition are 9 per cent less likely to side with the district *versus* the party. This supports the finding that government parties may be less cohesive in their preferences overall but more party-loyal when it comes to the norm siding with the party line in legislative votes (Van Vonna *et al.*, 2014). Regarding the effect of district magnitude, the findings show that for every one-unit increase in district magnitude, the probability of siding with the

party increases by 3 per cent. This effect grows stronger as district magnitude increases. This finding supports Siavelis and Morgenstern's (2008) argument that larger districts in open-list systems often decrease incentives to cultivate the loyalty of district voters in the long-term [in Latin America]. Substituting the personal vote incentive score [not included here] showed that as the incentives to cultivate a personal vote increase, MCs claim to be more party-loyal. This is counterintuitive to the assumption based on Carey and Shugart (1995), however, it may support Siavelis and Morgenstern's argument on the differential effects of ballot type in the Latin American context. The results from this model do not provide strong evidence that district heterogeneity (Fiorina, 1974; Bailey and Brady, 1998; Harden and Carsey, 2012), increases the probability of siding with the party in Latin America, but the tendency does support that MCs are more party-loyal in heterogeneous districts.

Given the potential social desirability bias associated with the dependent variable, a further robustness check draws on two further PELA survey questions related to party discipline in legislative voting, and one question related to the

TABLE 4. Robustness checks: The effect of party-district congruence on attitudes towards party discipline, sanctions for mavericks, and the value attached to getting resources for their district

	Mandatory discipline	Expulsion of mavericks	Getting resources for district is important/very important
Congruence			
Party-district congruence	-0.51(0.08)***	-0.26(0.08)**	0.25(0.14)*
Control variables			
District heterogeneity	-0.02(0.19)	-0.39(0.19)**	-0.26(0.37)
District magnitude (<i>M</i>)	0.16(0.08)**	0.04(0.07)	-0.10(0.15)
Incumbent	0.30(0.18)*	0.18(0.17)	-0.17(0.31)
Presidential party/coalition	0.46(0.18)	0.07(0.17)	0.32(0.31)
Constant	-2.1(0.51)***	-0.50(0.27)	4.1(0.99)***
Random intercepts			
District	0.73(0.17)	0.62(0.18)	1.6(0.30)
Intraclass correlation coefficient			
ICC District	0.14(0.05)	0.11(0.05)	0.43(0.10)
Log Likelihood	-489	-509	-246
AIC	993	1033	507
BIC	1027	1067	540
N (Country)	16	16	16
N (District)	242	242	242
N (MCs)	843	843	837

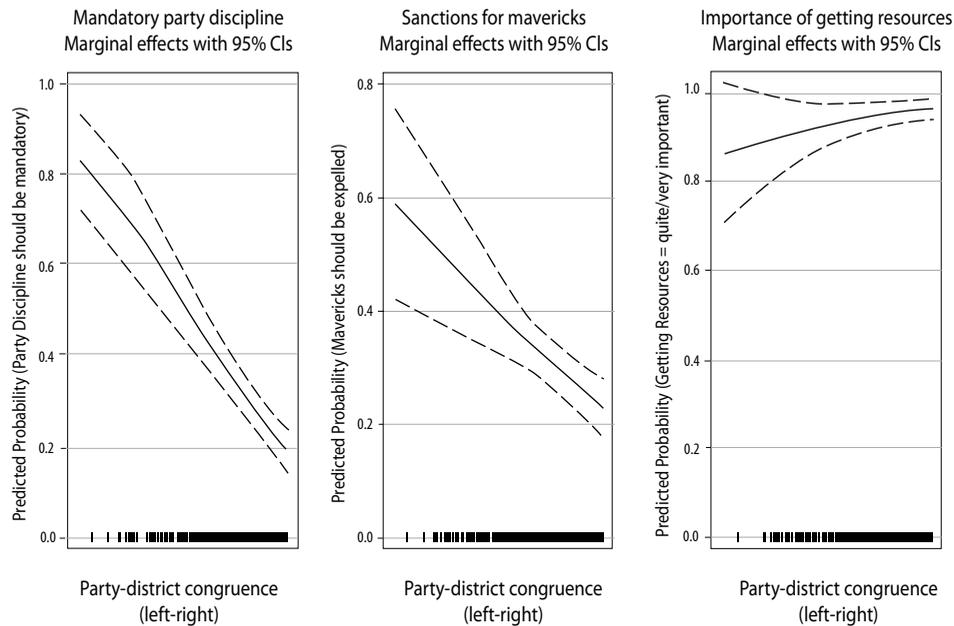
Source: PELA and LAPOP. Data on district magnitude were collected from secondary sources (*e.g.* government websites). *** $p < .001$, ** $p < .05$, * $p < .1$. ICC, interclass correlation coefficient; AIC, Akaike information criteria; BIC, Bayesian information criterion.

value MCs attach to delivering the goods to their districts. The first survey question asks: “Party discipline has often generated conflicting opinions. Which statement do you most agree with?” The response options are *a)* party discipline should always be mandatory, *b)* MCs should be able to vote according to their own criteria, *c)* some topics should be subject to party discipline. I created a dummy variable (1 = party discipline should be mandatory *versus* 0 = own criteria/some topics). The second survey question asks “To what extent do you agree that MCs that deviate from the party line should be expelled from the party?” The response options are: *a)* strongly disagree, *b)* disagree, *c)* agree, *d)* strongly agree. I am not interested in the indi-

vidual categories, so I created a second dummy variable (1 = strongly agree/agree 0 = strongly disagree/disagree). Last, I draw on the question asking “How important is getting resources for your district to you?” I recoded this variable as a dummy variable as well (1 = very/quite important, 0 = not very/not at all important). Since previous models performed best with the district-level random effects, I draw on logistic regression models with the district-level random effects. Table 4 displays the results.

The results support the main finding in the previous models. The previous models showed that MCs are more likely to claim they would side with their district when the party position is closer to the district median. In addition, as the party

FIGURE 7. The effect of party-district congruence on attitudes towards party discipline and getting resources for districts



Source: PELA and LAPOP.

moves closer to the district median, MCs are less likely to value party discipline and express less support for stringent sanctions (expulsion from the party) for mavericks. In sum, the results provide evidence that an increase in party-district congruence decreases the probability of placing value on party discipline. For every one-unit increase in party-district congruence, the probability that MCs claim that party discipline should be mandatory decreases by 11 per cent. Similarly, for every one-unit increase in party-district congruence, MCs are 4 per cent less likely to value expulsion as a sanction for mavericks. Regarding the value attached to delivering resources to the district, the probability of considering the latter quite or very important increases by 10 per cent between the minimum and maximum scores of party-district congruence. However, as the figure shows, the probability of attaching importance to getting resources for the district is overall quite high. Figure 7 summarizes these effects. Overall, when the party is closer to the district median, MCs claim district loyalty, harbor more lax attitudes towards party discipline and

are slightly more likely to attach greater value to getting resources for the district.

The findings in the previous models are based on the left-right scale, so it is possible that analyzing different issues may lead to different findings. Specifically, Ansolabehere *et al.* (2001a) show that parties influence legislators on policy issues such as broad economic issues, budget or taxation, but they leave legislators alone on moral issues such as abortion or same-sex marriage. It could thus be expected that the effect of congruence varies across issues. I ran a further robustness check with two further congruence variables based on policy positions regarding same-sex marriage and state control of the economy.¹¹ These questions were only available in 14

¹¹ The question on same-sex marriage is phrased: “How strongly do you approve or disapprove of same-sex couples having the right to marry?” A 1 indicates “strongly agree” while 10 means “strongly disagree”. “I am going to read some sentences on the role of the state (in this case, I drew on the statement “The state should be the owner of the country’s most important enterprises”). Please indicate the extent to which you agree or disagree with them, using the scale from 1 to 7 where 1 means “disagree” and 7 means “agree”.

countries included in the sample. The effect of party-district congruence based on same-sex marriage went in the same direction: party-district congruence decreased the likelihood responding that they are loyal to the party *versus* the district. Regarding the control of the state enterprises, the effects went in the opposite direction. I suspect that this relates to the fact that MCs are most disciplined regarding broad economic issues in line with Ansolabehere *et al.* (2001b). Thus, it could be expected that MCs will generally claim to side with the district when parties are closer to the district preferences, yet on economic issues, legislators will always side with the party. Since the findings based on the left-right scale go in the same direction as those based on views regarding same-sex marriage, it could be that the left-right scale is tapping into social issues such as same-sex marriage rather than economic issues. However, I do not further investigate this here.

Conclusion

Parties mostly vote in unison, and Latin American parties are not exempt from this pattern (Morgenstern and Nacif, 2002). For this reason, research has now increasingly focused on the sequential steps leading hereto. Analyzing the tension between party, district, and MC preferences and its effect on the norm of party loyalty helps understand the link between different steps leading to party unity in line with sequential scholars (Hazan, 2003; Kam, 2001; 2009; Andeweg and Thomassen, 2011; Van Vonnó *et al.*, 2014; Close and Núñez López, 2017). It is clear that the [involuntary] step of party discipline based on party rules can force MCs to follow the party line, but the link between the [voluntary] steps of an MC's ideological agreement in preferences and adherence to party loyalty *before* party discipline occurs is less straightforward. In Latin America, the link between the steps leading to party unity is not so clear for several reasons. On the one hand, party systems are less institutionalized (Mainwaring and Torcal, 2005; Mainwaring, 2018), and programmatic linkages based on policy positions in many may generally weaker

than in the US or in Western European party systems (Roberts, 2012). On the other hand, MCs face fewer electoral incentives to build a personal reputation in the district given that they are elected in multimember districts and don't typically seek reelection. Being a good district representative is one of the ways that MCs can score points within the party to be considered for other posts in their dynamic career, and claiming to side with the district is much easier when the party is in line with the median district voter's position.

This paper finds that MCs in Latin America generally claim to side with the district *versus* the party when their preferences conflict. While the surveys are anonymous and MCs should thus be less prone to answer strategically, their answers still may be a product of "social desirability bias". However, it is nonetheless a straight-forward question that allows examining under which circumstances MCs claim to be more district-loyal. Specifically, it allows examining how the tension between party and district policy positions can affect their propensity to side with the district *versus* the party. The findings show that an MC's propensity to side with the party versus the district only tends to occur as the party moves closer to the median district voter. In other words, the ideological proximity of the party to an MC's district is crucial to an MC's attitude towards representation. Upon controlling for several other confounding variables, this result remains robust. A further robustness check finds that party-district agreement also has a significant effect on the extent to which MCs support party discipline and prioritize providing resources for their district. This finding is relevant for scholars interested in the tension between the party and districts' policy positions and its effect on MCs' attitudes. While this question has been explored amongst Members of the European Parliament regarding the tension between the European *versus* National Party or US congressmen between the legislative party and their constituencies, we now have evidence on the extent to which the tension between policy positions affect the tension between the two main principals

can affect their propensity to follow the district *versus* the party line. Comparative work in Latin America has not yet focused on this question based on fine-grained district-level data cross-nationally (Alemán, 2013).

The article overall builds on extant research in four main ways. First, it examines two steps of the sequential process leading to party unity: the effect of party and district preferences on an MC's disposition to follow the party line when facing cross-pressures. Second, it adds to extant regionally-biased literature by examining 16 parliaments in Latin America's presidential systems where party loyalty and district representation is not as straightforward as in the US or parliamentary democracies. Third, it builds on recent efforts based on legislative and voter surveys to understand policy preferences, which has been encouraged as a promising source to measure policy preferences and MCs' attitudes (Saiegh, 2009; Laver, 2014; Close and Núñez, 2013, 2017). While roll call votes provide an end-result of MCs' preferences and party discipline, examining confidential survey responses helps tap into the effect of preferences regardless of party disciplinary measures. Drawing on survey data provides a systematic approach to comparing MCs' preferences and attitudes in different institutional environments. Scholars have recently highlighted the value of attitudinal surveys, despite potentially biased responses, to understand MCs' preferences and attitudes *before* they vote to understand the sequential path to party unity (Andeweg and Thomassen, 2011; Önnudottir, 2014; Close and Núñez, 2013, 2017). Last, it draws on finely grained data aggregated at the party and district level; especially district level comparative data has been hard to come by (Alemán, 2013; Alemán and Tsebelis, 2016).

This article naturally also faces several limitations. For instance, while the main principals with the most sanctioning power are the district and the party, data on further principals *e.g.* regional party positions are unavailable. Further research should aim at collecting data on principals on the subnational level. Next, the results are based on the left-right dimension since con-

gruence on specific issues is difficult to cover for all of the countries in the sample, yet congruence may vary on the type of issue and the circumstances of a certain vote. While this paper did include robustness checks by drawing on additional issues, a further examination of such variation might shed light on which issues congruence matters the most for MCs' propensity to follow the policy lines. Last, we do not know about the dynamics of change and how legislators react to shifts in opinion throughout one legislative period or over time, as research has been able to cover mainly Western European countries and the US. Through systematic data collection with comparable issues across greater time spans within presidential democracies in Latin America and other regions, this will be possible for future studies interested in understanding the steps leading up to party unity. 

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Appendix

APPENDIX 1. Survey data

Country	District	Sample size (MPS)	Sample size (District)
Argentina			
	Capital Federal	6	544
	Provincia Buenos Aires	29	–
	Chaco	5	18
	Formosa	1	–
	Jujuy	2	106
	Salta	2	54
	Santiago del Estero	1	53
	Tucuman	2	37
	Cordoba	2	107
	San Luis	1	12
	Mendoza	1	53
	Rio Negro	2	26
	Neuquen	2	15
	Tierra del Fuego	1	9
Bolivia			
	La Paz	21	293
	Santa Cruz	18	329
	Cochabamba	12	277
	Potosi	13	266
	Chuquisaca	9	220
	Oruro	7	230
	Tarija	8	268
	Beni	5	267
Brazil			
	Acre	2	–
	Alagoas	2	25
	Amazonas	1	26
	Amapa	1	–
	Bahia	14	72
	Cear	2	43
	Distrito Federal	4	15
	Espirito Santo	5	27
	Goiás	3	33
	Maranhão	3	21
	Mato Grosso	3	24
	Mato Grosso Sul	1	–
	Minas Gerais	22	115

APPENDIX 1. Survey data (continued)

Country	District	Sample size (MPS)	Sample size (District)
	Pará	3	16
	Paraíba	3	38
	Paraná	12	46
	Pernambuco	6	–
	Piauí	3	–
	Rio Grande	5	75
	Rio Grande Norte	1	12
	Rio de Janeiro	8	153
	Rondonia	3	–
	Santa Catarina	5	28
	São Paulo	13	209
	Tocantins	5	–
Chile			
	Distrito 1	3	32
	Distrito 2	1	31
	Distrito 3	4	89
	Distrito 5	2	47
	Distrito 7	2	67
	Distrito 9	2	15
	Distrito 10	1	213
	Distrito 11	1	23
	Distrito 15	2	15
	Distrito 22	2	380
	Distrito 29	2	28
	Distrito 33	2	32
	Distrito 34	1	9
	Distrito 37	1	26
	Distrito 42	2	31
	Distrito 44	2	93
	Distrito 47	2	32
	Distrito 48	2	5
	Distrito 58	2	9
	Distrito 59	2	27
	Distrito 60	2	13
Colombia			
	Antioquia	10	104
	Atlántico	4	49
	Bolívar	3	54
	Bogotá	13	204
	Boyacá	4	65

APPENDIX 1. Survey data (continued)

Country	District	Sample size (MPs)	Sample size (District)
	Caldas	4	25
	Caqueta	1	12
	Casanare	1	16
	Cauca	1	20
	Cesar	1	51
	Cordoba	1	39
	Cundinamarca	5	33
	Huila	2	6
	Magdalena	3	36
	Meta	2	31
	Nariño	1	54
	Quindio	1	8
	Risaralda	2	53
	Sucre	2	50
	Tolima	5	49
	Valle	7	116
	Vaupes	1	13
Costa Rica			
	Alajuela	9	149
	Cartago	6	90
	Guanacaste	4	68
	Heredia	5	94
	Limon	5	99
	Puntarenas	5	73
	San Jose	15	362
Ecuador			
	Nacional	7	49
	Azuay	3	66
	Bolivar	1	23
	Cañar	2	17
	Carchi	1	–
	Cotopaxi	3	23
	Chimborazo	2	45
	El Oro	4	–
	Esmeraldas	3	26
	Guayas	14	364
	Imbabura	1	27
	Loja	2	30
	Los Rios	1	50
	Manabi	8	61

APPENDIX 1. Survey data (continued)

Country	District	Sample size (MPS)	Sample size (District)
	Morona Santiago	2	17
	Napo	2	15
	Pastaza	1	–
	Pichincha	8	270
	Tungurahua	1	35
	Zamora Chinchipe	2	17
	Sucumbios	2	10
	Santa Elena	2	18
	Santo Domingo	2	23
	EUA/Canada	2	–
	UE, Asia, Oceania	2	–
	A. Latina y Caribe	2	–
El Salvador			
	Ahuachapan	2	89
	Cabañas	2	43
	Chalatenango	3	133
	Cuscatlan	2	57
	La Libertad	8	43
	Morazan	3	37
	San Miguel	5	97
	San Salvador	18	387
	San Vicente	1	65
	Santa Ana	3	114
	Sonsonate	5	61
	La Union	3	62
	Usulután	3	65
	La Paz	4	65
Guatemala			
	Nacional	10	1245
	Central	2	182
	Guatemala	6	–
	Sacatepequez	3	32
	Chimaltenango	4	40
	Escuintla	1	91
	Santa Rosa	1	45
	Solola	3	27
	Quetzaltenango	3	88
	Suchitequepez	1	52
	Retalhuleu	1	17
	San Marcos	4	63

APPENDIX 1. Survey data (continued)

Country	District	Sample size (MPS)	Sample size (District)
	Hehuetenango	5	94
	Quiché	6	65
	Baja Verapaz	1	23
	Alta Verapaz	4	84
	Petén	2	43
	Izabal	2	24
	Zacapa	2	–
	Jalapa	1	50
	Jutiapa	3	54
Honduras			
	Atlantida	7	87
	Colon	3	48
	Comayagua	6	74
	Copan	5	113
	Cortes	14	255
	Choluteca	8	86
	El Paraiso	1	57
	Francisco Morazan	17	171
	Gracias a Dios	1	24
	Intibuca	4	21
	Islas de Bahia	1	24
	Lempira	2	38
	Olancho	4	31
	Santa Barbara	7	82
	Valle	1	37
	Yoro	5	134
Mexico			
	Aguascalientes	2	24
	Baja California	4	46
	Coahuila	6	32
	Distrito Federal	11	135
	Durango	1	17
	Guanajuato	8	68
	Guerrero	1	40
	Jalisco	9	80
	Mexico	9	175
	Michoacan	5	27
	Morelos	1	23
	Nuevo Leon	4	49
	Oaxaca	1	37

APPENDIX 1. Survey data (continued)

Country	District	Sample size (MPS)	Sample size (District)
	Puebla	9	59
	Queretaro	2	24
	Quintana Roo	1	11
	San Luis Potosi	3	28
	Sonora	4	32
	Tabasco	3	20
	Tlaxcala	1	24
	Veracruz	8	135
	Zacatecas	3	22
Nicaragua			
	Nacional	8	1 477
	Boaco	2	32
	Carazo	3	54
	Chinandega	4	134
	Chontales	1	42
	Estela	2	62
	Granada	1	39
	Jinotega	2	98
	Leon	3	104
	Madriz	2	59
	Managua	11	400
	Masaya	4	78
	Matagalpa	3	141
	Nueva Segovia	1	19
	Rivas	1	45
	RA Atlantico Sur	2	82
	RA Autonoma Atlantico Norte	1	63
Panama			
	Bocas del Toro	1	20
	Cocle	5	83
	Colon	5	97
	Chiriqu	9	134
	Darien	2	23
	Herrera	2	57
	Los Santos	1	36
	Panama	30	639
	Veraguas	4	93
	Comarca Ngobe Bugle	2	24
Paraguay			
	Alto Parana	6	127

APPENDIX 1. Survey data (continued)

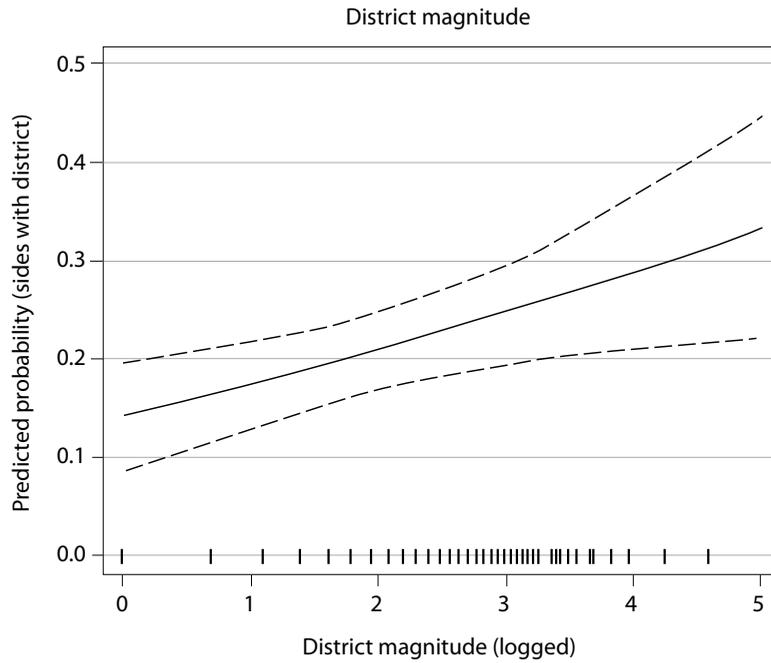
Country	District	Sample size (MPS)	Sample size (District)
	Amambay	2	16
	Caaguazu	3	99
	Canindeyu	2	36
	Central	17	332
	Concepcion	2	23
	Cordillera	4	49
	Guaira	2	40
	Itapua	6	102
	Misiones	2	24
	Neembucu	2	15
	Paraguay	3	45
	San Pedro	4	50
	Capital	6	126
	Presidente Hayes	2	10
Peru			
	Amazonas	1	28
	Ancash	4	49
	Apurimac	1	13
	Arequipa	1	13
	Ayacucho	1	35
	Cajamarca	3	57
	Cuzco	5	54
	Huancavelica	1	22
	Huanuco	1	36
	Ica	3	15
	Junin	2	40
	La Libertad	5	82
	Lambayeque	2	55
	Lima	26	447
	Loreto	4	50
	Moquegua	2	6
	Pasco	1	1
	Piura	3	77
	Puno	4	64
	San Martin	3	25
	Tacna	2	15
	Tumbes	2	25
Uruguay			
	Montevideo	31	588
	Canelones	13	156

APPENDIX 1. Survey data (continued)

Country	District	Sample size (MPS)	Sample size (District)
	Maldonado	2	57
	Rocha	2	33
	Colonia	3	9
	San Jose	2	46
	Florida	1	38
	Flores	2	51
	Durazno	2	43
	Lavalleja	2	34
	Treinta y Tres	1	32
	Cerro Largo	2	47
	Soriano	2	26
	Rio Negro	1	28
	Paysandu	2	43
	Salto	3	39
	Artigas	2	29
	Rivera	3	–
	Tacuarembu	3	65

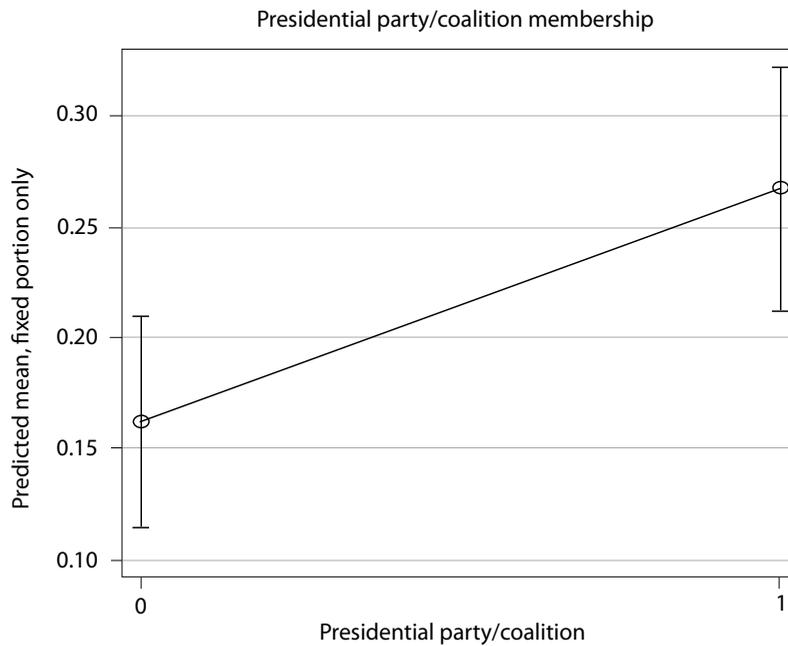
Source: LAPOP and PELA.

APPENDIX 2. The effect of district magnitude (logged) on party *versus* district loyalty



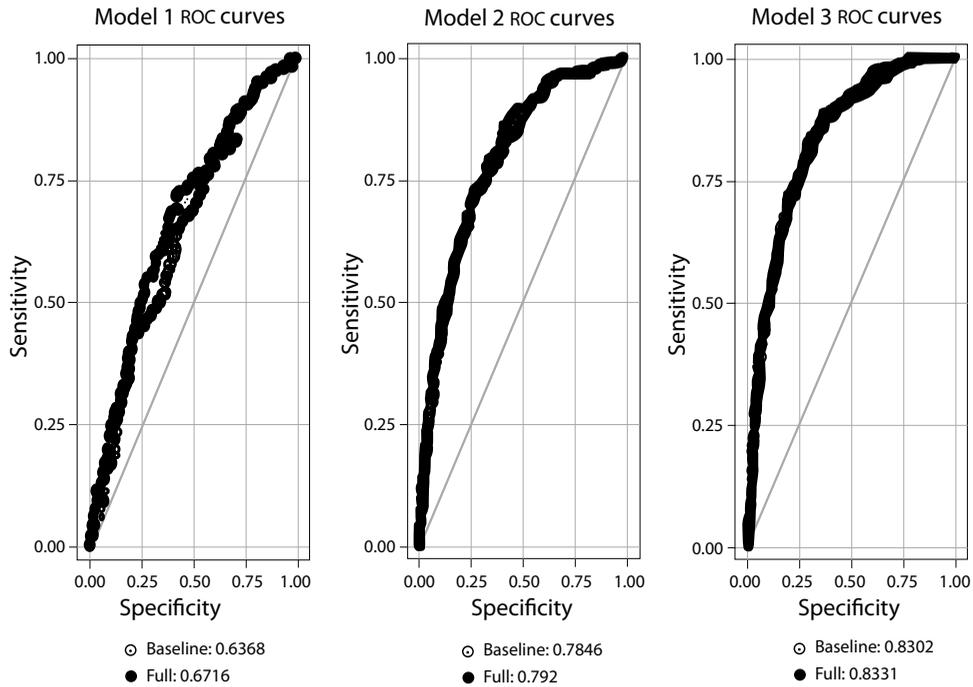
Source: PELA and LAPOP.

APPENDIX 3. The effect of presidential party/coalition membership on party *versus* district loyalty



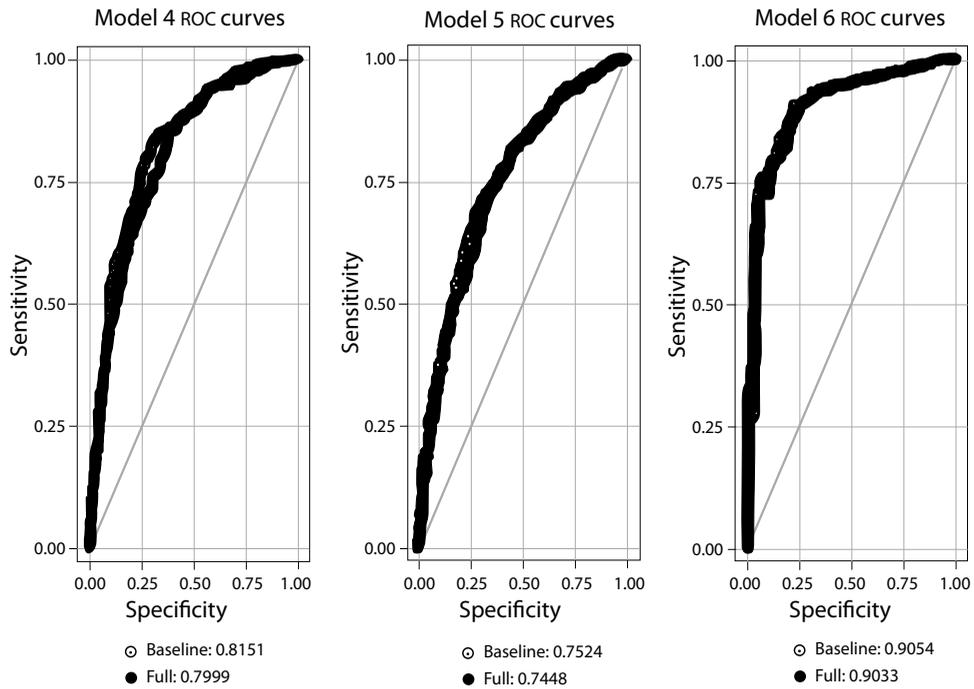
Source: PELA.

APPENDIX 4. The ROC curves display the performance of models 1-3



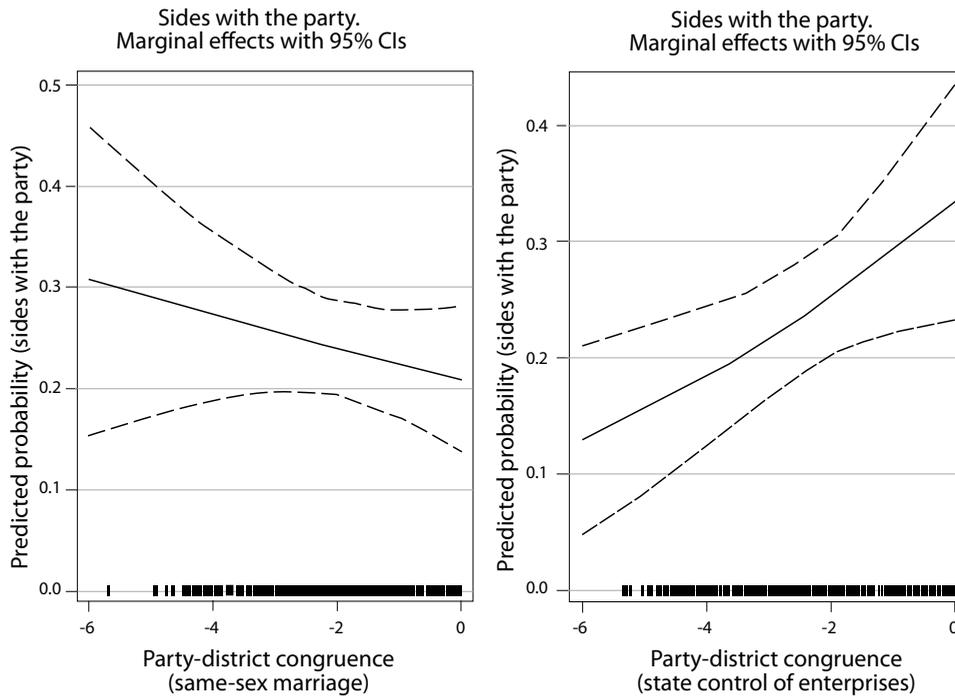
Source: PELA and LAPOP. *Note:* The ROC curves display the performance of models 1-3 in their baseline and full form. The closer the curve comes to the 45 degree diagonal of the ROC space, the less accurate the test, and an area of 1 represents a perfect test. While all curves provide evidence for relatively accurate models, the rule performs most accurately for model 3 which accounts for district random intercepts. The area curves in model 3 have the highest scores at 0.830 (baseline) and 0.833 (full model).

APPENDIX 5. The ROC curves display the performance of models 4-6



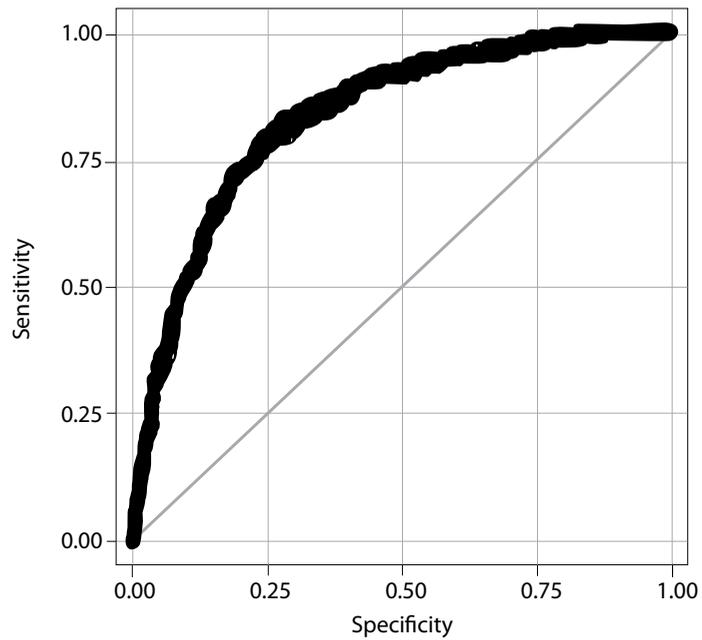
Source: PELA and LAPOP. *Note:* These ROC curves display the performance of models 4-6 (Robustness checks) in their baseline and full form. The closer the curve comes to the 45 degree diagonal of the ROC space, the less accurate the test, and an area of 1 represents a perfect test. While all curves provide evidence for relatively accurate models, the rule for models 4-5 perform slightly less accurately compared to the main model. However, model 6 performs most accurately with the highest scores overall at at 0.90 in both the baseline and full form.

APPENDIX 6. The effect of issue-based congruence on party loyalty



Source: PELA and LAPOP. *Note:* These effects are based on model 3; the only difference is that congruence measures based on concrete issues rather than the left-right scale. These models are based on the same MCs included in the previous models, however the N decreases (= 749) since these survey questions were not available for Panama and Paraguay. The model based on same-sex marriage shows similar effects as the left-right scale, while the model based on state control of enterprises (a broad economic issue) goes in the opposite direction. These additional findings point to differential effects across issues, and support previous findings on the importance of party cohesion on economic issues. The regression models are not included here but are available upon request from the author.

APPENDIX 7. Party-district congruence based on issues ROC curves



- Same-sex marriage: 0.8332
- State control of enterprises: 0.8384

Source: PELA and LAPOP. *Note:* These ROC curves display the performance of the additional robustness checks for issue congruence rather than left-right congruence. The ROC curves show that the models perform as well as the main model.