Abstract. While political polarization may lead to gridlock and other negative policy outcomes, representation is likely to be enhanced when parties differentiate themselves from each other and make it easier for voters to see the connection between their personal ideologies and the electoral offerings. These differences between parties may be especially important in developing democracies where voters are still learning parties’ priorities and where parties do not always emphasize issues when campaigning. To test this proposition, I develop a measure of elite polarization in Latin America since the early 1990s based on legislative surveys. Individual-level voting patterns from mass survey data confirm that the connection between voters’ self-placement on the left-right scale and their electoral choice is stronger in polarized party systems, even when controlling for other party-system factors like the age of the party system or electoral fragmentation. This effect on voting behavior is not immediate, however, as voters take time to recognize the new cues being provided by the changing party system.

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1 The author thanks Ryan Carlin, Russell Dalton, and Elizabeth Zechmeister for their comments on previous drafts of the article and the collectors of the elite surveys used here for making their data available. All interpretations of that data and errors are the author’s responsibility.
Many observers of Latin American elections are skeptical about whether voter choices in the region are based on issue concerns or ideology. For example, Arnold and Samuels find that “citizens’ voting behavior is, at the aggregate level at least, largely devoid of policy or ideological content” (2011, 33) while Mainwaring and Torcal argue that, “voters choose candidates on the basis of their personal characteristics without regard to party, ideology, or programmatic issues” (2006, 204). One commonly cited cause of these patterns is the inability or unwillingness of the region’s political parties to fully embrace programmatic competition. If parties do not differentiate in themselves from their rivals by offering a distinct policy vision, then voting blocks are unlikely to build up along stable ideological or group-based dynamics. Dix, for example, argues that “when mass politics did appear in Latin America, they tended to take the form of the inclusive, multiclass party of rather eclectic, pragmatic ideology and appeals” (1989, 33). These catch-all parties emphasized centrist appeals and leaders’ personalities instead of ideological differences. This tendency towards personality and clientelism at the expense of programmatic appeals may have accelerated in many countries in the 1990’s as economic crises shifted parties’ bases (Roberts 2002) and forced many parties to abandon their traditional positions (sometimes after being elected espousing those positions) and cooperate to enact neo-liberal policies (Stokes 2001). As parties became less distinct, class cleavages were weakened (Roberts 2002), ideology played a reduced role in anchoring the vote (Zechmeister and Corral 2013, Harbers et al 2013) and voters’ party attachments became attenuated (Lupu 2013). The result was an electorate that in many cases comprised of “floating politicians and floating voters” (Conaghan 1995, 540).

This Latin American story, while oversimplified, mirrors an emerging comparative literature on how modes of voting behavior are strongly affected by the nature of the options that
the party system provides to voters. Specifically, European and American voting studies suggest class voting, ideologically-based voting, value-based voting, and partisanship are all strengthened when parties are ideologically distinct from each other (e.g. Evans et al 1999; Thomassen 2005; Dalton 2008, 2011; Levendusky 2010; Dalton and Anderson 2011; Lachat 2008, 2011, Singh 2010; Lupu 2011) while voting based on candidate traits decreases when parties are ideologically polarized (Tverdova 2011). Taken together, this emerging literature suggests that that differences between parties facilitate mandate representation by making it easier for voters to know what parties stand for and that, in its absence, voters resort to voting on non-policy concerns. Mandate representation is undermined when competing parties do not represent a meaningful choice.

The vast majority of these studies on the electoral importance of polarization have occurred in countries where democracy is entrenched. Polarization may play an even more important role in facilitating ideological electoral choice in systems where parties are less well established. If democracy is either new or returning from a period of authoritarianism, voters may not have had sufficient time to learn what parties stand for (Keefer 2007) and to know if politicians will keep their promises once elected (Stokes 2001). Thus we might expect that voters might have a harder time in relatively new democracies using their vote effectively to achieve representation. Yet if political parties present clear alternative visions for what they will do once in office, these problems may be mitigated and ideologically-based voting may be more likely to emerge.

Thus the extant comparative literature suggests that the correspondence between voters’ ideological positioning and their electoral choices should vary within Latin America as party polarization differs across countries and within them over time. Those differences in party
systems are often overlooked in the stories told about electoral competition across the entire region. In some countries, the choices offered by parties are starkly delineated while in others even educated observers would have a hard time articulating what the major policy divides are. These differences should in turn result in differences in voting behavior across countries. In countries where parties make distinct appeals, voter choices should be strongly structured by ideological concerns. The rise of the left in recent years may further affect these dynamics in some countries by further clarifying the differences between candidates and, with that process, raising the electoral stakes.

In this study, I generate a measure of elite ideological polarization for parties in 18 Latin American countries from the past two decades that track differences within countries and across them over time. I then examine the link between voters’ left-right self-placement and their voting intentions from surveys spanning the 1995-2009 period. Consistent with the emerging work on other regions, party polarization is associated with differences in voter behavior. As differences between parties increase, voters are more likely to link their vote to their left-right self-placement. Yet this effect is not immediate but instead evolves over time. Voters need time to observe that the political landscape is changing and to incorporate it into their evaluations of the parties. Yet as these differences have increased, a condition that facilitates programmatic representation may have been enhanced in many countries in the region.

**Elite Polarization Defines Voter Choices**

Polarization is often associated with the politics of partisan conflict, protest, and gridlock. Yet while these things often can follow polarization, polarization itself is a narrower concept. Polarization is “a programmatic structuration of partisan alternatives in which the announced positions of relevant competitors are very far apart” (Kitschelt et al 2010, 17) and “reflects the
dispersion of political parties along an ideological or policy dimension” (Dalton and Anderson 2011, 14). In other words, polarization is merely a condition in which parties take distinctive policy positions from each other and, in doing so, seek to differentiate themselves from other parties. These differences in positions can in turn make compromise difficult, raise the perceived stakes of elections, and generate greater conflict and distrust among political alternatives but conflict is a potential outcome of polarization given the way that institutional arrangements and societal norms structure political discourse and negotiations, not polarization itself.2

The intuition linking party system polarization to voter choices in Latin America is laid out by Coppedge. He argues that

“Party systems affect the quality of representation by defining the number and quality of choices available to voters for the expression of their preferences. The more parties there are, the more likely it is that every voter or group of voters will be faithfully represented by one of them. But at the same time, not just any set of parties will do. They must be parties that are programmatically distinct, parties that take clearly different positions on

2 In considering the effect of polarization it is also important to note that issue distinctiveness is not the only element of party’s positions that might affect voting behavior. Kitschelt et al (201, 18), for example, note that polarization only cares about “the distribution of parties’ mean positions” while we might also care about whether or not there is internal agreement about what those positions are. In this paper we focus on polarization, following recent work by Thomson (2005), Dalton and Anderson (2011), and Evans and De Graaf (2013), but acknowledge that this additional dimension of party system coherence might be relevant for shaping voter choices as well.
issues that are relevant for giving the voters some control over what the government does. This is a requirement for any semblance of a mandate and accountability in democratic politics; without it, elections would be meaningless and irrelevant. Therefore, the more distinct each party is from other parties in the system, the better the quality of representation.” (2007, 124 emphasis added)

This line of argument should apply to both voting on specific policies and overall voting on the left-right scale. Even if parties differentiate on specific issues, to see left-right voting, they must emphasize differences in their overall ideologies. Large differences between parties’ positions on the left-right scale make it easier to differentiate between them on ideological grounds while convergence by parties makes it difficult for voters to find alternatives. In an extreme case in which all parties take the same position, ideological voting is impossible for voters because the parties’ positions provide no leverage for distinguishing them. Partisan conflict also makes issues more accessible and salient as debates focus on the issues on which politicians diverge (Alvarez and Nagler 2004). Thus as party system polarization increases, so should the number of voters who can base their vote on the parties’ ideology. If, in contrast, parties take identical policy positions and voters cannot choose between them based on their platforms they may instead focus on leaders’ personalities or the material inducements parties provide (Kitschelt 2000, Kitschelt et al 2010).

A handful of studies on advanced industrial democracies have shown that polarization increases the empirical linkage between voters’ ideologies and their electoral choice. Levendusky (2010) provides experimental evidence that polarization increases voters’ ability to see linkages across policy positions in an election. Dalton (2008, 2011) shows that the bivariate association between how a respondent places herself on the left-right scale and her subsequent
vote is stronger in countries where parties are more ideologically distinct from each other. Lachat (2008, 2011) and Singh (2010) find a similar pattern of polarized party systems increasing the association between ideology and voter choices in multivariate analyses, with the latter study including cases from developing countries. Yet these studies focus on areas where party ideologies are relatively well established, which opens the question of whether polarization can play the same anchoring role in party systems where programmatic voting is relatively weak.

These other issue with the existing studies is that they are largely cross-sectional in nature, leaving open the question of how quickly a change in party alignments corresponds to a change in voting behavior. On average, we should see that polarized party systems have more ideological voting. Yet levels of polarization can change over time, either as existing parties shift their position or as new partisan actors enter the electoral system. The question becomes how will voters respond to these changes-if party offerings become increasingly different from each other, how long will it take for voters to notice and to become able to link their issue preferences to their now more clear choices? While voters may respond quickly to those changes-parties making them certainly have incentives to make voters aware of them-it seems unreasonable for voters to immediately notice those changes if they have an already established image of what parties and politicians stand for. Then even if voters see parties take a new position during the campaign, they might question whether that position will guide their behavior when in office or if they will revert to old positions. In fact, studies looking at how voters in advanced industrial democracies perceive parties’ issue positions (Adams et al 2011) and respond to them when voting (Erickson et al 2002, Adams and Somer-Topcu 2009) find voters weight past issue positions heavily when considering their evaluations of parties in the present. Over time, however, as parties continue to debate policies and govern in such a way that
emphasizes these differences, we should see voters begin to recognize the new situation.

Thus I predict that we will see a more gradual change in voting behavior as party systems evolve. In the language of time series analysis, changes in party positions take the previous relationship between polarization and left-right voting out of equilibrium. As voters become aware of that relationship over time, the relationship then rebalances. If voter behavior does not shift, however, then we can worry about whether any cross-sectional relationship between polarization and voting patterns is causal. Time series data on political polarization allow us to test that proposition.

A couple of studies have looked at the effect of polarization in Latin America on public opinion. Zechmeister and Corral (2013) and Habers et al (forthcoming) find that polarized party systems have higher numbers of respondents being able to place themselves on the left-right scale. Zechmeister and Corral also find greater congruence between individuals’ policy attitudes and their self-described ideologies in heavily polarized countries. Thus polarization seems to provide structure for voter ideologies. Yet neither study analyzes whether polarized party systems lead to voters’ left-right self-placement having a larger role in voting. It is to that specific question I now turn.

Levels of Polarization in Latin America

Several previous studies provide measures of political polarization in Latin America, but none of them are ideal for the present study. Coppedge (1998, 2007) presents a broad picture of polarization based on a dispersal of electoral support across ideological blocks in several Latin American countries over time. However, his dataset does not include Paraguay or most of Central America, which limits its scope. Kitschelt et al (2010) and Zechmeister and Corral (2013) have analyzed patterns of ideological polarization for a single cross-section of countries. Yet
these measures do not extend over time, which limits their leverage for analyzing the effect of polarization on political outcomes, especially in a region where party systems are not universally stable.

The measure of partisan polarization presented here is developed using the methodology developed by Alvarez and Nagler (2004), Ezrow (2007), and Dalton (2008). For each party in a country, I estimate its overall left-right ideological position on the basis of how party elites describe their party. These estimates also allow us to estimate the weighted average ideology of all the parties in a legislature, weighting them by their seat share. Then for each party I calculate the squared distance between the party’s ideology and the system-mean. Polarization is calculated as the square root of the weighted average of those squared distance of each party from the legislative mean, weighting deviations from the mean in accordance with the party’s size. Specifically, if party i has an ideological position of LR$_i$ and earned S$_i$ percent of the seats in the legislature and the average ideology in the country is LR$_{country}$, then the polarization measure equals

$$\sqrt{\sum S_i (LR_i - LR_{country})^2}$$

A party system with all parties close to the mean will have a small polarization score. A party system where a small party deviates from the overall mean for the legislature will have a smaller

3 We focus on elite self-placements because party manifestos and survey data asking citizens to describe parties’ ideologies are not available for most countries in the region and expert surveys on party positions are available only in a single cross-section (Wiesehomeier and Benoit 2009). Yet these various methods of coding party ideologies usually yield very similar estimates of party positions (Dalton et al 2011).
polarization score than will a party system where a large party is extreme.\footnote{One weakness of this index is that polarization will be very low for systems dominated by a single party. Thus while I do not have data on Venezuela since 2005 due to a lack of coverage in the Salamanca surveys, I expect that the estimated polarization will be very low in the period following the opposition boycott. But the correlation between the polarization measure and the effective number of parties in that legislature is very weak ($r=0.04$), a pattern that echoes Gross and Sigelman (1984) and Dalton (2008). This confirms that this is a separate dimension of party system structure except in the least competitive political systems.}

I estimate party ideologies using data collected by the Parliamentary Elites in Latin America (PELA) study, a series of interviews conducted among elected members of Latin American parliaments (Alcantará 2012).\footnote{See \url{http://americo.usal.es/oir/Elites/}. These data are the source of the polarization measures developed by Kitschelt et al (2010) and Zechmeister and Corrales (forthcoming).} These surveys are conducted once every legislative term with officials chosen randomly from parties and the overall representation of parties in the sample being proportional to their size. Survey sizes range from 46-50 interviews in the smaller legislatures (El Salvador, Costa Rica, Paraguay) to over 130 interviews in Brazil and, with the exception of Argentina, Brazil, and Mexico where the large legislature limits participation to around 25 percent of members, most country samples include over 50 percent of members of congress, with representation over 90 percent in some cases. These large samples allow us to estimate parties’ positions with confidence. The questionnaire is administered via face-to-face interviews with the elected official.

I use this survey because members of parliament were consistently asked where they
placed their party on the left-right ideological spectrum.\textsuperscript{6} While voters in Latin America differ in their ability to understand and discuss politics in terms of left and right (Zechmeister 2006, Habers et al 2013, Zechmeister and Corral 2013), there is evidence that elite political organization is structured along this basic ideological dimension in most countries in the region (Rosas 2005, Wiesehomeier and Benoit 2009, Kitschelt et al 2010). From these data, I calculate the average position of the party as perceived by its members and, by combining that information with the share of the seats controlled by each party, the weighted average mean for all parties in the legislature.\textsuperscript{7} These values can then be used to calculate the polarization measure for the legislature. I supplement these data with data on Brazil from the Brazilian Legislative Surveys (Power and Zucco 2012) because PELA data were not available for several Brazilian legislatures.

Three legislatures that were elected in 2006 demonstrate how this measure is calculated and how it can vary across party systems. The 2006 Dominican Republic elections resulted in the ruling Dominican Liberation Party (PLD) and its allies winning 53.9 percent of the seats, the Dominican Revolutionary Party (PRD) winning 33.7 percent of the seats, and the Social

\textsuperscript{6} I have calculated an alternative measure of party system polarization where I map the parties’ locations using legislators’ own self-placement instead of that of the party; the two measures have a bivariate correlation of 0.97.

\textsuperscript{7} In making these calculations, I had to exclude respondents who party affiliation was recorded in the PELA dataset as “other” or “regional” instead of a specific party. To generate the weighted average in these cases, I divided the share of seats each party controlled by the total share of seats controlled by parties about which I knew their ideology.
Christian Reformist Party (PRSC) winning the remaining 12.4 percent. While these parties have been the main three combatants in Dominican politics over the previous half century, they have converged ideologically in recent years as their founding leaders have died and the initial conflicts which spawned these movements have faded with the consolidation of democracy (Morgan et al 2011). Instead, Dominican parties are organized around clientelist networks and the personalities of former presidents. That tendency toward centrism is reflected in the PELA survey of members of the new legislature. The average member of the PLD placed his party at 5.57 on the ideological scale. The average member of the PRD placed the party at the same spot (after rounding): 5.57. The PRSC members described their party as being slightly more conservative with a ranking of 6.0. The weighted average ideology for the legislature is 5.63 and none of the three parties are more than 0.37 away from that average and with the two largest parties having essentially the same ideology we should expect the polarization score to be small. It is; the resulting polarization score for this legislature is 0.14, the smallest in the sample.

A very different dynamic existed in the legislature elected in the 2006 elections in El Salvador. The Nationalist Republican Alliance (ARENA) won a plurality of seats (40.48), followed closely by its longtime rival the Farabundo Martí National Liberation Front (FMLN) with 38.1 percent of the seats. Three other parties won seats: the National Conciliation Party (PCN) won 11.9 percent, the Christian Democratic Party (PDC) won 7.14 percent, and the newly formed Democratic Change Party (CD) won 2.38 percent of the seats. The party system in El Salvador represents the ideological divisions of the civil war period (Wood 2005) and so it is not surprising that the parties describe themselves in very different ideological terms. The average ARENA member placed the party at 8.71 on the 1-10 scale, while the FMLN’s members described it as a 1.21. The three smaller parties were also ideologically dispersed, with the PCN
coded as a 7.57, the PDC as a 5.4, and the CD as 3.5. The average ideology in the legislature is thus 5.35, but most parties diverge from it by 2 or more points and the largest parties are more than three points away from the legislative mean. Thus the polarization score for this legislature is 3.43, the largest in the sample.

The final example comes from the 2006 elections in Peru. While Peru’s parties have traditionally been weak (see Levitsky 2013), candidates have staked out in recent years a basic division over the best way to manage the economy and in particular recent elections have focused on whether Peru should join the left turn that many of its neighbors have undergone. The PELA survey following the election interviewed members of the 4 largest parties- the Union for Peru (UPP), the Peruvian Aprista Party (APRA), the National Unity Party (UN), and the Alliance for the Future (AF), while lumping members of the other three parties that won seats together into the category of “other parties”. Because the other respondents cannot be linked to a specific party, we focus on the share of the seats that each of these parties won as a share of the total seats controlled by the four of them to calculate the weighted average of partisan ideology and also the overall polarization measure. Thus the UPP, which won 37.5 percent of the seats in the legislature, is treated as having won 40.54 percent of the seats about which we have data on the parties’ ideologies, followed by ARPA (32.4 percent), UN (15.3), and AF (11.7). The UPP is described by its members as being center-left, with an average placement of 3.45. The ARPA is closer to the center with an average placement of 4.67 and then the UN and AF are both self-described as center-right parties, with average placements of 6.62 and 6.5 respectively. The resulting average ideology is 4.69, which the two largest parties are within a point of and the no party is more than 2 points away from. The estimated polarization score for the 2006-2011 Peruvian legislature is 1.25, which is close to the median value for the overall sample.
These three cases from 2006 exemplify the range of outcomes that are seen across Latin America. The estimated polarization values for all legislatures on which data are available in Appendix 1. I plot their trends in Figure 1. While there is relatively little data on Venezuela (two legislatures), I can break the rest of the region down in terms of the average levels of polarization. There tend to be very few differences across party positions in Costa Rica, the Dominican Republic, and Paraguay over the entire sample. Argentina, Peru, and Panama had similarly low levels of polarization until recently but have seen ideological differences increase in recent elections. Honduras, in contrast, saw a shrinking of ideological distances in the aftermath of the 2009 coup. A second group of countries with medium levels of polarization includes Brazil, Chile, Colombia, Ecuador, Guatemala, Mexico, and Uruguay. Finally, Nicaragua and especially El Salvador have always had high levels of ideological polarization between their parties while Bolivia has seen its level of polarization accelerate in recent elections with the growth in electoral support for the MAS after a previous period where there was no strong left party.

(Figure 1 about here)

The data in Figure 1 shows that polarization levels vary across countries but polarization is not a fixed attribute of the party system. Several countries have seen polarization levels increase as new parties enter the system (Argentina, Bolivia, Ecuador, Peru, and Uruguay) or as new political alignments rise (Mexico, Panama). In general, levels of polarization have

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8 It is thus very possible that as future elite ideology data are collected from Honduras we will see higher polarization levels that reflect differences between the two traditional parties and other groups such as the LIBRE coalition that supported Castro de Zelaya in the 2014 elections.
increased on average throughout the hemisphere over the 1995-2010 period,\(^9\) which mirrors the recent growth in support for leftist political leaders whose rhetoric and policies in many cases has represented a sharp break from existing political debates at the elite level. It also reflects the erosion of the Washington Consensus period where expressed disagreements on economic policies were relatively minimal in many countries. Yet there are exceptions to this trend, as polarization has fallen in some countries due to political crises that reorient the party system (e.g. Honduras) or as politics becomes increasingly personalized (e.g. the Dominican Republic).

It is beyond the scope of the present note to model the correlates of party-system fragmentation. Yet it is worth noting that the bivariate correlations between polarization and the effective number of legislative parties is weak (\(r=0.067\)) and insignificant (\(p=0.317\), two tailed). Two-party systems can have both high (El Salvador) and low (Dominican Republic) levels of polarization as can multiparty systems (e.g. both Ecuador and Guatemala are fragmented but only Ecuador is polarized). Polarization and fragmentation are separate dimensions of party competition.

**Polarization and Ideological Voting in Latin America, 1995-2009**

To explore the electoral consequence of polarization, I estimate the electoral role of ideology using data from Latinobarometer surveys conducted between 1995-2009 in 18 Latin American countries.\(^{10}\) I use these annual surveys instead of election specific surveys in part

\(^9\) In analysis not presented here I have regressed polarization on a variable measuring the year of the survey and a set of country-specific dummy variables and find a positive, statistically significant correlation between the time variable and political polarization.

\(^{10}\) The initial sample includes 14 observations from 7 countries that were in the Latinobarometer
because of the dearth of election polling data that is publically available in Latin America but also because I believe that voters make decisions about the potential parties they are likely to support as political events unfold and not only after presidential and legislative candidates are formally selected. Thus annual data allows us to track the dynamics of candidate support and how voters view the political options and also evaluate how quickly voters update their preferences based on changing party-system dynamics. Vote choice is measured by respondents answering the question “who would you vote for if an election were held today?” Voters who did not have a firm electoral choice or who did not intend to vote for any candidate are excluded from the analysis. Previous work on voter choices in advanced industrial democracies shows that patterns of responses to this question are driven by similar dynamics as are dynamics in questions taken immediately before/after an election (Duch and Stevenson 2008). Voters’ standing vote choices are driven by similar demographic factors, issue positions, and evaluations of parties’ performance as their ultimate vote choice is. In an analysis not reported here I test whether the correspondence between ideology and voter choices is higher in presidential election years and while the number of undecided voters is lower in election years, the connection between ideology and the vote is not significantly different in election years than in non-election

survey in 1995 and have continued over the 1995-2009 period (with no survey occurring in 1999): Argentina, Brazil, Chile, Mexico, Peru, Uruguay, and Venezuela-the voting measure was not available for Paraguay in 1995. In 1996 the sample expands to include Bolivia, Colombia, Costa Rica, Ecuador, El Salvador, Guatemala, Honduras, Nicaragua, Panama, and Paraguay. The Dominican Republic is added in 2004. Cases are then excluded from the analysis if the PELA survey was not conducted that year.
Respondents’ left-right identities are drawn from the question “In politics, people normally speak of "left" and "right". On a scale where 0 is left and 10 is right, where would you place yourself?” Respondents who do not answer a question are excluded from the analysis. I expect that this measure should be more strongly associated with voter choices in countries where party polarization makes it easier for voters to perceive the different approaches advocated by the parties. So I focus on how the strength of the association between left-right identification and vote choice. I measure the strength of the association between left-right self-placements and voter preferences for each country-year. Because vote choices are nominal, I use Cramer’s V as the measure of association. In doing so, I replicate Dalton’s (2008, 2010) methodology.\footnote{An alternative methodology to study this relationship would be to model voter choices at the individual level as a function of left-right positions interacted with the estimated polarization-level for the country-year the survey was conducted. Yet this method is impossible with the Latinobarometer data used here because in many survey-years responses are not coded by party name but instead are listed as “1\textsuperscript{st} governing party, 2\textsuperscript{nd} governing party… 1\textsuperscript{st} opposition party, etc.” or in some cases the codebooks do not provide the necessary codes for vote choice at all. Thus I have no choice in doing the analysis but to treat voter choice as a nominal variable instead of transforming it into an ordinal one. Yet using 2012 data from the AmericasBarometer survey that allows her to identify perfectly the party the respondent recalls voting for in the last election, Zechmeister (2013) estimates a hierarchical model that looks at how left-right self-placement predicts voter choices (with voter choices coded according to the ideology of the party being supported per Baker and Greene (2011)) that incorporates the data presented in Figure.
The association between ideological-self placement and voter choice differs substantially across countries within the region (Figure 2). The association ranges from a low of 0.025 (Argentina in 1996) to 0.529 (El Salvador in 1997), although most associations are between\textsuperscript{12} 0.15 and 0.34 with an average association of 0.23. This is one standard deviation lower than the average bivariate association between left-right self-placement and voter choice of 0.29 that Dalton (author’s calculation from data in Dalton 2011, 108) documents in 20 advanced industrialized democracies. The connection between ideology and the vote is strongest on average in Uruguay, El Salvador, Chile, and Nicaragua while the weakest average associations are in Honduras and the Dominican Republic.

These estimates of ideological voting across countries are the dependent variable in the analysis presented below. I model them as a function of the party polarization measure extracted from the PELA surveys, with an expectation that the association between ideology and the vote will be higher in countries with more polarized party systems. I control for legislative fragmentation (the effective number of parties winning seats)\textsuperscript{13} although expectations for this

\cite{1/Appendix 1 of this article and finds that the marginal effect of left-right self-placement is larger in polarized countries. She also finds that estimating the strength of the association between left-right self-placement and voter choice by looking at the estimated slope, the $R^2$ from a bivariate regression, or the Cramer’s V yields highly correlated estimates of this association. These results establish the general robustness of the basic approach utilized here.}
\textsuperscript{12} These are the 10\textsuperscript{th} and 90\textsuperscript{th} percentiles respectively.
\textsuperscript{13} The effective number of parties winning seats (Laakso and Taagepera 1979) weights parties according to their size, such that if party $i$ wins $S_i$ percent of the seats in the legislature, the
variable are mixed. Previous analyses on voting behavior in other regions have argued that voters are more likely to find a party that represents well their ideological position if there are multiple party options available (Norris 2004, Singh 2010, Lachat 2011), an argument echoed by Coppedge in the passage quoted above. Yet a recent analysis of Latin American dynamics suggests the opposite empirical pattern: ideology’s role may be smaller in fragmented party systems in the region if fragmentation is occurring in countries that have become unattached from their ideological moorings (Zechmeister and Corral 2013). I also control for the average age of the 4 largest parties in the country (logged because several very old party systems would be outliers) because ideological voting might be enhanced if the party system is stable and voters have a long history of interacting with parties and have had time to learn their ideological positions (Mainwaring and Torcal 2006, Keefer 2007). The pooled model is estimated with robust standard errors adjusted for country clustering to take into account the slow changes in the party system measures within most countries over time.

The extant literature on polarization and ideological voting in established democracies has largely been cross-sectional. One advantage of the present dataset is that measured-levels of polarization vary both across countries and within them over time and thus we can attempt to identify how long it takes for voters to respond to changes in the party environment. Thus after exploring the association between polarization and voting-behavior on average across the sample, I estimate a cross-sectional time series model that looks at whether changes in polarization correspond to a shift in voting patterns. Specifically, I estimate an error correction

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effective number of legislative parties is $1/\sum S_i$.

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14 Data on party system age comes from the Database of Political Institutions (Beck et al 2001).
model whereby the first difference of the ideology-vote relationship is regressed upon the lag of that association as well as the first difference and lag of the independent variables. The Cramer’s V estimates of ideological voting are stationary and there is no autocorrelation within the average panel.\footnote{The Wooldridge test for autocorrelation in panel data does not reject the null hypothesis of no autocorrelation (\(F=0.486, p=0.495\)) while the Hadri test does not reject the null hypothesis that all panels are stationary (\(z=0.3585, p=0.36\)).} Yet error correction models are useful for evaluating stationary data if we are interested in knowing whether a variable has an immediate effect or if its effect is primarily over a longer period as the outcome of interest recalibrates after a shock (De Boef and Keele 2008). The estimation of short-term and long-run effects for polarization and other party-system variables allows me to test my expectation that voters will not change their behavior immediately upon recognizing increased polarization within the party system; I expect the first differenced party system variables which capture short-run effects to be insignificant while the lagged variables which reflect a longer-term equilibrium relationship should be significant.

**Results**

I first look at whether there is a general association between party-system polarization and ideological voting. The results in Table 1 are consistent with the expectation that party system polarization magnifies the role left-right self-placement plays in voter choices. As parties grow distinct from each other, the association between respondents’ ideologies and their vote choices grows. The correspondence between polarization and ideological voting is not perfect; Uruguay, for example, has high levels of ideological voting (average Cramer’s V=0.41) despite having moderate levels of elite polarization. Yet if we plot the average levels of polarization and
left-right voting we see that in most cases countries where parties have distinct ideological platforms tend to display more connections between voters’ left-right positions and their vote (Figure 3). The average association between ideological voting and voter preferences are substantially higher in countries where parties are polarized like El Salvador (average ideological vote=0.36) or Nicaragua (0.27) than in countries where there are smaller differences between the parties like the Dominican Republic (average Cramer’s V=0.16) or Honduras (0.17). Yet even if we exclude the countries with the highest levels of average polarization this general tendency holds.16

(Table 1 about here)

(Figure 3 about here)

Patterns in ideological voting within Latin America are also correlated with the number of political actors in a system. But the pattern in Latin America is different than that documented in most previous studies of Europe and anticipated by Coppedge in the passage quoted above but instead is consistent with Zechmeister and Corral (2013): the ideology-vote connection is weaker in countries with multiple parties. This may be consistent with their argument that, in modern Latin America, the most fragmented party systems are those where party institutionalization is lowest. Yet the impact of a one standard deviation increase in average level of party polarization on the predicted association between ideology and voter choices is 2.5 times greater than is the impact of a similar on standard deviation decrease in legislative fragmentation. For ideological voting, the ideological positions of the political parties seems to matter more than their absolute

16 Specifically, as a robustness check I have run the models dropping listwise each country and the substantive conclusions do not change.
I also find no differences across systems of different age. The left-right association does not necessarily tend to be more common in systems where the parties are established. The implication is that what matters for ideological voting is how they compete and their ability to differentiate themselves, not their stability. Party systems can endure without building up patterns of ideological voting, especially in a region where clientelism is so common and potentially exists as an alternative anchor to the party system.

Yet while Table 1 suggests that there is a general correspondence between elite differentiation and ideological voting, it does not tell us anything about how fast voter behavior adjusts to differences in elite positioning. Thus in Table 2 I present the results of an error correction model that looks at how changes in ideological voting respond to short-term fluctuations and general trends in elite polarization.

(Table 2 about here)

There is no evidence that voters respond immediately to a shift in the electoral environment; all three first-differenced party-system variables are insignificant at conventional levels. Thus if polarization increases in an election year, the connection between voter self-placement and their electoral leanings is not strengthened immediately. Yet the lagged party system polarization and fragmentation variables in Table 2 are significant at conventional levels. This implies that there is a long-run equilibrium relationship between polarization and ideological voting such that when polarization increases, ideological voting will increase in subsequent periods. Specifically, if elite polarization increases by a standard deviation (0.71 in our sample, roughly the equivalent of the change in the Bolivian party system after the 2002 elections when the MAS gained its first real representation), then the level of ideological voting
should increase by 0.04 (roughly half of one standard deviation of the observed variation in Cramer’s V’s across our sample) over the next few years, with roughly 61 percent of that change occurring within the two years after the election and 84 percent within three years. By comparison, a one standard deviation in electoral fragmentation results in a long-run decrease in the association between ideology and voter choices by 0.02, with the change occurring at the same error correction rate. Again, polarization seems to have a more consistent association with voter choices than party system fragmentation does.

Thus while most of the response to changing party environments occurs relatively quickly once they occur, the divergent results between the short-run and long-term effects in Table 2 remind us that the adjustment is not immediate as voters need time to incorporate the new partisan alignment into their choices. But as parties do become more polarized, the correspondence between voters’ self-placements on the left right scale and their electoral choices tends to strengthen over time.

Conclusion

There is a burgeoning literature showing that electoral polarization is correlated with specific forms of voter behavior in established democracies. In particular, studies suggest that the linkage between voters’ electoral choices and their demographic groups, their issue positions and ideological views, and their evaluations of government performance all appear to be correlated with parties taking distinct ideological positions. The data presented above suggest that differences in elite ideologies across parties in Latin America are also associated with differences in electoral behavior despite these party systems being less well established than in the North American and European democracies where most of the extant work has been done. There is greater evidence of ideological-based voting and economic voting in countries where
parties are distinct from each other. Thus while ideology matters less on average in Latin America than it does in Europe, ideological differences can and do matter to voters in those cases where parties provide them with meaningful choices.

Given that parties in Latin America tend to exhibit lower levels of polarization and ideological consistency than in more established democracies (Dalton 2008, Kitschelt and Freeze 2010), a lack of ideological differentiation may be partially at the roots of the weak levels of ideological voting that we observe in so many countries across the region. Yet polarization seems to be increasing on average over time in many countries in the hemisphere. This rise in electoral polarization corresponds to the strengthening of leftist parties in many countries in the hemisphere (Levitsky and Roberts 2011, Handlin 2013). Previous work on the region has noted that strong left parties may anchor programmatic party systems as other parties strengthen their alternative message (Luna and Zechmeister 2005, Kitschelt et al 2010). The present study suggests that the rise in polarization that has occurred in parallel with Latin America’s left turn may help lead to increased ideological structuring within the electorate as voters focus on the divergent options that parties present and become more likely to sort themselves into ideological camps.

While the present article focuses only on the association between left-right association and the vote, we should expect that polarization should facilitate multiple forms of programmatic linkage. In countries where parties do not differentiate themselves from each other, it is difficult for voters to consider which party is best likely to implement policies that will benefit their group, to distinguish parties on specific issues, and to see the benefits of switching which party is in charge if the policies being implemented will not change. Indeed, a series of studies using the polarization data presented here show that voter choices in polarized party systems display
stronger associations with demographic characteristics like religiosity and gender and voter choice, economic issue positions, ideology, and economic performance (Carlin, Singer, and Zechmeister n.d.). Thus in countries without a meaningful set of choices, voters’ options to establish programmatic representation are limited.

In considering the electoral consequences of polarization, we have left to the side the myriad of other political effects of polarization, not of all which may be equally beneficial for democracy. Polarization may also increase legislative gridlock, for example, and deepen electoral dissatisfaction among election losers, for example (e.g. McCarty 2007). The present analysis has also not explored the causes of differences in party competition across countries along the lines of previous work on a general setting by Curini and Hino (2012) or in a subset of Latin American countries by Kitschelt et al (2010). While polarization trends strongly differ across countries and may be generally self-reinforcing, they can and do change over time as parties enter or exit the electoral arena or following systemic crises. In fact, while Kitschelt et al (2010) emphasize the importance of long-term developmental processes to understand programmatic competition generally, these data remind us that political party distinctiveness can and does change rapidly over time as strategic actors look to mobilize voters. Understanding these patterns may be a necessary step to understand whether elections can meet their full potential as agents of political control. By making the data on party system polarization available in the appendix to this article, I hope that future studies can examine the origins of political polarization as well as its consequences for policy outputs and other outcomes beyond electoral behavior.
### Appendix: Polarization Levels in Latin America

<table>
<thead>
<tr>
<th>Country</th>
<th>Years</th>
<th>Polarization</th>
<th>Country</th>
<th>Years</th>
<th>Polarization</th>
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\(^{17}\) Calculated from Power and Zucco 2012.
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Thomassen, Jacques


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Wood, Elizabeth J.


Zechmeister, Elizabeth


Zechmeister, Elizabeth and Margarita Corral

Figure 1: Legislative Polarization by Country and Year
Figure 2: The Estimated Association Between Ideology and Voter Choices in Latin America, 1995-2009.
Figure 3: Average Polarization and Left-Right Voting Across Countries
Table 1: Ideology-Vote Association (Cramer’s V) 1995-2009

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<td>(0.073)</td>
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<table>
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<td>F</td>
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Regression Model, Standard Errors Adjusted for Country Clustering in Parentheses
* p<0.10, ** p<0.05, *** p<0.01 (two tailed)
Table 2: Error Correction Model of Polarization-Ideological Vote

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Regression Model, Standard Errors Adjusted for Country Clustering in Parentheses

* p<0.10, ** p<0.05, *** p<0.01 (two tailed)