Revisiting party system structuration in Latin America and Europe: Economic and socio-cultural dimensions

Cecilia Martínez-Gallardo, Nicolás de la Cerda and Jonathan Hartlyn
Department of Political Science, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA

Liesbet Hooghe and Gary Marks
Department of Political Science, University of North Carolina at Chapel Hill, Chapel Hill, NC, USA; Robert Schuman Centre for Advanced Studies, European University Institute, Florence, Italy

Ryan Bakker
Department of Government, University of Essex, Colchester, GB

Abstract
The degree to which party systems are ideologically and programmatically structured is central to democracy. This article analyzes differences in the extent and nature of programmatic structuration in Latin America and Europe, using a new original data source, the Chapel Hill Expert Survey-Latin America (CHES-LA), in combination with the long-standing CHES-Europe. First, we demonstrate the reliability of CHES-LA in relation to CHES-Europe, and substantiate its validity by comparing it to other expert, elite and party manifesto surveys in Latin America. Using confirmatory factor analysis, we then show that while party system structuration in Latin America is somewhat lower than in Europe, it is also of a decisively different nature. In Latin America economic and socio-cultural policy positions are largely captured in a single overlapping dimension; in Europe, by contrast, competition occurs overwhelmingly along two dimensions, each with distinct clusters of policy positions.

Keywords
Political parties, Latin America, Europe

Introduction
The degree to which party systems are ideologically and programmatically structured is central to democratic accountability. Programmatic structuration requires that political parties take identifiable positions on one or more ideological dimensions, offering voters a choice of contrasting policy commitments. In the absence of programmatic structuration, however, voters need to base their voting decisions on alternative political appeals, such as clientelism or charisma.

There is a disconnect in the research regarding party structuration in Latin America and Europe. In contemporary Latin America, research problematizes the extent of ideological structuring in a context where high electoral volatility, personalistic politics, and clientelism are the norm (Saiegh 2009; Power and Zucco 2009; Wiesehomeier and Doyle 2012). In Europe, research has focused on the dimensionality rather than the extent of programmatic structuration (Bakker et al., 2012; Kriesi et al., 2008; Rovny and Polk 2019; Hooghe et al., 2002).

We contribute to this discussion along three lines. First, we develop expectations about party system structuration in contemporary Latin America and Europe. Based on existing literature, we expect programmatic structure in Latin America to be both somewhat lower than in European party systems and of a decisively different nature. While in Latin America economic and socio-cultural policy positions are largely captured in a single overlapping dimension, in Europe competition occurs overwhelmingly along two dimensions, each with distinct clusters of policy positions.

Paper submitted 12 November 2021; accepted for publication 9 March 2022

Corresponding author:
Cecilia Martinez-Gallardo, 253 Hamilton Hall, Department of Political Science, University of North Carolina at Chapel Hill, Chapel Hill, NC 27599, USA.
Email: cmg@email.unc.edu
Likewise, partisan competition is most likely to revolve around economic issues in contexts of widespread economic need (Singer 2011), and in Latin America economic crises and underdevelopment have been endemic, especially when compared to Western Europe.

Second, although claims for cultural and social rights accompanied political democratization, the coincidence of political and economic reform meant that demands from groups campaigning on issues of ethnicity, gender, sexual orientation, or the environment generally reinforced the material demands of labor, students, or the informal sector (Almeida et al., 2021). As a result, few parties in the region emerged articulating a distinctly new cleavage. Ethnic parties remain weak and even where they are strong, like the MAS in Bolivia, they combine indigenous issues with material demands (Hartlyn and Stoyan 2020; Wickham-Crowley and Eckstein 2015). Environmental movements have also tended to fit within existing conflicts concerning economic growth and poverty reduction. The same is true for immigration, which has been far more polarizing outside Latin America. Support for issues of gender and sexuality has come, sometimes hesitantly, from parties of the left (Friedman 2019) and been opposed by conservative parties and the rising evangelical movement (Boas and Smith 2015; Smith 2019). In sum, socio-cultural demands have generally mapped well onto the existing socio-economic cleavage.

By contrast, in Europe a distinct socio-cultural dimension emerged in the 1980s when a new class of highly educated individuals in post-industrial occupations brought environmental sustainability, women’s rights, and LGBTQ+ onto the agenda (Hooghe and Marks 2021; Stubager 2009). These GAL (green, alternative, libertarian) concerns could not easily be assimilated into the traditional left-right cleavage. Instead, this new divide led to the rise of Green parties, prompting in the 1990s a backlash spurring TAN parties that stress traditionalism, authority, and nationalism (Kitschelt 1988; Bornschier 2010; Mudde 2007). Whereas traditional right-wing parties take pro-market positions, TAN parties tend to blur economic issues in order to gain the support of manual workers reacting against immigration, European integration, and trade penetration (Häusermann and Kriesi 2015; Hooghe and Marks 2018) and the mainstreaming of GAL values (Abou-Chadi et al., 2021).

In sum, there are strong reasons to expect a single dominant cleavage in contemporary Latin America that combines economic and socio-cultural issues. We expect parties on the right to be pro-market and more socio-culturally conservative. Those on the left will favor state intervention in the economy and redistribution; and, if parties are more liberal on socio-cultural issues, they will also be left-leaning. In contrast, we expect the cleavage structure of the party system in most contemporary European countries to have distinct economic and socio-cultural dimensions.

Programmatic structuration of party systems in Latin America and in Europe

The second contribution is empirical. We introduce new data on party positioning in 12 Latin American countries from the first round of the Chapel Hill Expert Survey-Latin America (CHES-LA), an extension of the long-running CHES-Europe (Jolly et al., 2022). We demonstrate the reliability of this original data source in relation to CHES-Europe and provide extensive evidence for its validity by comparing it to other Latin American expert, elite and party manifesto surveys.

Finally, taking advantage of the overlap of questions between CHES-LA and CHES-Europe, we compare the extent and nature of programmatic structuration in the two regions’ party systems. Relying on a confirmatory factor analysis (CFA), we show that party structuration is generally strong in Latin America and largely oriented around a single highly salient dimension that encompasses economic and non-economic factors. In turn, we show that structuration in Europe is very different, with distinct socio-cultural and economic dimensions. Our conclusion considers implications of our work and discusses future avenues of research.
CHES-Latin America reliability and validity

To compare the degree and nature of party system structuration in Latin America and Europe, we introduce a new data source, the Chapel Hill Expert Survey—Latin America (CHES-LA), an extension of the long-running CHES-Europe. CHES-LA measures the ideological and programmatic profile of parties in 12 countries: Argentina, Bolivia, Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico, Paraguay, Peru, Uruguay, and Venezuela. The survey, conducted in 2020, asked 160 experts to place 112 political parties and 13 presidents on an extensive set of issues and dimensions.3

To examine the programmatic structure of political parties in Latin America, research to date has used three methods: surveys of political elites (PELA-USAL; Alcántara, 2018; Gramacho and Llamazares 2007; Power and Zucco 2009); party manifestos (Ares and Volkens 2017; Morgan and Hinojosa 2018; Mantilla Baca 2020); and expert surveys (Wiesehomeier and Benoit 2009).

Cross-validation for European political parties reveals that these methods tend to detect the same underlying construct, and hence it seems plausible that estimates from CHES-LA similarly tap into the same construct as other methods: surveys of political elites (PELA-USAL; Alcántara, 2018; Gramacho and Llamazares 2007; Power and Zucco 2009); party manifestos (Ares and Volkens 2017; Morgan and Hinojosa 2018; Mantilla Baca 2020); and expert surveys (Wiesehomeier and Benoit 2009). Cross-validation for European political parties reveals that these methods tend to detect the same underlying construct, and hence it seems plausible that estimates from CHES-LA similarly tap into the same construct as other expert, elite, and party manifesto studies (Bakker et al. 2012; Marks et al. 2007). However, each has distinctive strengths and weaknesses (Benoit and Laver 2006; Steenbergen and Marks 2007). Elite surveys have the virtue of tapping positioning among active parliamentarians, but suffer possible bias from low response rates, and the reluctance of some Latin American elites to self-identify as conservative or neoliberal is well-documented (Power and Zucco 2009). Party manifestos are widely available and can be analyzed retrospectively, yet they are intended to strategically highlight some issues while downplaying others. Expert surveys rely on diverse sources of information, including party behavior, its election manifesto, and the expressed views of its parliamentary representatives, yet reliance on a limited number of experts raises questions about reliability.

Indeed, a recent cross-validation of party positioning comparing CHES-Europe, party elite, and manifesto surveys suggests that “expert data provide more valid estimates on the left–right dimension” and that estimates from expert and elite surveys “show a higher congruence than those derived from party manifestos” (Ecker et al., 2021: 10).

At the same time, the concern about reliability of expert judgments remains important. How do we know that experts are evaluating the same thing with the same concepts? Do they weigh the actions, words, behavior, and intentions of party leaders consistently? In designing the survey, we specify clearly that we wish to estimate the positions of party leaders on specific policy dimensions in a specific year. However, even the most carefully crafted questions leave interpretative space, and hence the possibility of divergence, for even the most informed experts.

A key advantage of extending CHES to Latin America is that we can assess the reliability as well as the validity of CHES-LA in relation to CHES-Europe. In the remainder of this section, we take each of these up in turn. In the final section, we draw on the data to compare dimensionality across parties and between regions.

Reliability

There are several reasons for believing that CHES-LA provides reliable information, that is, that repeated expert measures of a given party’s position are likely to yield similar results. First, the survey draws on members of the academic community with demonstrated knowledge about political parties in any of the 12 countries we survey. We targeted scholars who study political parties at leading institutions of higher education within each country, the United States, or Europe. For this first wave of CHES-LA, we focused on countries where we could confidently access a critical mass of country experts, gathering responses from 160 regional experts. Our response rate compares favorably with similar datasets. Considering only fully completed questionnaires, the mean number of respondents per country is 10, with a minimum of six in Bolivia and a maximum of 15 in Argentina.4 This is higher than V-Party, a leading source which has an estimated mean of 7.5 experts in the 12 countries available in CHES-LA, ranging from four in Bolivia to 11 in Mexico.5

We assess reliability by inspecting the standard deviation (or reliability score) of expert placements on several questions, and comparing them to the 2019 wave of CHES-Europe, which has been previously established as a reliable and valid source of party positioning (Steenbergen and Marks 2007).6 We focus on three summary ideological questions, which tap the general left-right position of parties, their economic left-right placement, and their socio-cultural placement.7 Panel (a) of Figure 1 plots the smoothed densities of expert reliability scores for each question.8 Broad agreement among Latin American experts on party placement is evidenced by the fact that the mean reliability score falls well below two points on an 11-point scale for all questions. Disagreement among experts is lowest regarding the general left-right (mean standard deviation of 1.20 across 112 political parties), followed by the economic left-right (1.25). There is somewhat more disagreement among experts on the socio-cultural dimension (1.73), historically less salient in Latin America. Reliability scores for CHES-Europe are slightly better: 0.99 for general left-right, 1.22 for the economic left-right and 1.42 for the socio-cultural dimension.
Overall, then, mean reliability scores for Latin America are only slightly higher than for Europe. However, if the ability of experts to place parties depends on the level of party institutionalization in each region, we would expect more agreement in Europe’s older democracies, where overall competition involves well-established parties (Kitschelt et al., 2010; Marks et al., 2007), than in Latin American party systems, characterized by volatility and short-lived parties (Mainwaring 2018). If so, averaging reliability scores across Europe may mask important regional variation. Experts should tend to agree most regarding the placement of parties in the institutionalized systems of Western Europe, somewhat less in Southern Europe, and least in the newer democracies of Eastern Europe.

We corroborate this by comparing Latin America to the three European regions separately in panels (b), (c), and (d) in Figure 1. Experts have better reliability scores in Western Europe (d) than in Latin America for all three questions. However, on the economic left-right, experts in Latin America have better reliability scores than in Eastern Europe (b) and roughly similar scores to Southern Europe (c). Reliability scores on the general left-right are similar for Latin America and Eastern Europe, but slightly better for Southern Europe. Only on the socio-cultural dimension are reliability scores weaker for Latin America, which is consistent with the lower salience of this dimension in the region.

In sum, reliability is high in both Europe and Latin America. Once we divide Europe into different subregions, it becomes even clearer that reliability in Latin America compares favorably to Europe, and that experts in both regions are more challenged in placing parties in newer democracies and on less salient dimensions.

Validity

We evaluate the validity of CHES-LA by comparing party placements on the left-right economic question (the only one available across all sources) with those generated by the PELA elite survey, the MARPOR party manifestos, and by the V-Dem and the Global Party Dataset (GPS) expert surveys.9

The top two panels in Figure 2 show remarkable consistency between CHES-LA and the two other expert surveys. Left-right placements in CHES-LA are correlated at 0.93 with V-Party (panel a) and at 0.88 with GPS (panel b). Panel (c) compares placements from CHES-LA and PELA, which correlate at 0.85, an impressive figure given the different timelines and expert sources (academics and parliamentarians, respectively). Finally, the lower correlation between left-right placements in CHES-LA and MARPOR (0.60 in panel d) is consistent with previous research showing a weaker relationship between manifestos and other sources of ideological positioning, as discussed above (Marks et al., 2007; Ecker et al. 2021).10
In all, CHES-LA estimates are highly consistent with those of other leading sources, giving us confidence in the validity of the data.

Comparing party structuration in Latin America and Europe

We now compare system structuration in Latin America and Europe using CHES data. As discussed in Programmatic Structuration of Party Systems in Latin America and in Europe (section above), existing literature leads us to expect Latin American party systems to be less programmatically structured than in Europe. Moreover, based on this literature, we anticipate party systems to be structured differently. While party systems in Europe should be structured around an economic and a socio-cultural

<table>
<thead>
<tr>
<th>Table 1. CHES items used in the Confirmatory Factor Analysis.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Left-right economic</td>
</tr>
<tr>
<td>Spending vs. taxes</td>
</tr>
<tr>
<td>Deregulation</td>
</tr>
<tr>
<td>Redistribution</td>
</tr>
<tr>
<td>Redistribution</td>
</tr>
<tr>
<td>Redistribution</td>
</tr>
<tr>
<td>Redistribution</td>
</tr>
</tbody>
</table>
dimension, in Latin America they are likely structured around a single dimension that combines economic issues with socio-cultural ones. Our data analysis largely matches these expectations.

We use Confirmatory Factor Analysis (CFA) to assess these expectations. Party systems with high levels of structuration should have predictable associations across policy positions. We first select policy questions common to CHES-Europe and LA, using Exploratory Factor Analysis (EFA) and imposing a cutoff of 0.3 for item inclusion. This produces three items associated with the economic left-right—state spending, deregulation, and redistribution—and six items related to a socio-cultural (or GAL/TAN) dimension—social lifestyle issues (like gay marriage), environmental sustainability, immigration, religion, ethnic minorities, and law and order (see Table 1).

We then estimate two CFA models: one that assesses whether party competition is organized across a single factor that combines economic and socio-cultural policies and one that evaluates whether the party-political space is

<table>
<thead>
<tr>
<th>Table 2. Confirmatory factor analysis fit indices.</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHES-Europe</td>
</tr>
<tr>
<td>One-factor</td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
</tr>
<tr>
<td>Root mean squared error of approximation (RMSEA)</td>
</tr>
<tr>
<td>Standardized root mean square residual (SRMR)</td>
</tr>
</tbody>
</table>

Figure 3. Confirmatory factor analysis fit indices bootstrapped distribution.
Figure 4. CFA results for Europe and Latin America.

Figure 5. Mean salience for left-right economic and socio-cultural dimensions.
two-dimensional with distinct economic left-right and socio-cultural axes. Fit indices for both models confirm that in both world regions the two-factor model fits the data better (Table 2). The Comparative Fit Index (CFI) is well above the conventional 0.90 level for good model fit, and the RMSEA and SRMR are both superior (i.e., lower) for the two-factor model (Kline 2010).

The character of structuration, however, differs greatly across regions. While in Europe the improvement in fit from one-factor to two-factors is considerable (+0.234), in Latin America the increase is modest (+0.045). To evaluate whether these differences are statistically significant, we estimate the distribution of the fit measures using bootstrapping. We run the models 10,000 times, using random sampling with replacement. The results provide additional evidence that we should accept the two-factor model for Europe but not for Latin America (Figure 3). While the distributions of all three fit measures (CFI, RMSEA, and SRMR) are clearly separated in the European case, for Latin America the distributions for one- and two-factor models overlap for each fit measure.

We examine the dimensionality in European and Latin American party systems further by predicting the position of every party in a two-dimensional latent space, using two-factor models. If the economic and socio-cultural dimensions capture different axes of programmatic structuration, they should not be highly correlated. As Figure 4 shows, the correlation between the two dimensions for Latin America is very high at 0.95, with most parties falling closely “along the diagonal” of the plot. In Europe the correlation is just 0.58, with many parties diverging from this pattern.

Figure 4 also shows regional differences in the location of parties on these two dimensions. Latin American parties skew left on the economic dimension with slightly more overall dispersion: their mean placement is −0.12, with a range from −4.46 to +3.86 and a standard deviation of 2.21. European parties’ placement is skewed slightly right: mean placement is +0.084, the range runs from −3.67 to +3.85, and the standard deviation is 1.75. On the socio-cultural dimension, in contrast, party positions vary considerably less in Latin America than in Europe. Europe provides many more examples of parties that are considerably more socially conservative, anti-immigrant,
and anti-libertarian, on the one side, and parties that are strongly socially liberal, strongly environmental, and pro-choice, on the other. On this dimension, average party positions in Europe range from $-3.68$ to $+4.65$ (mean=$0.18$; standard deviation=$2.26$), whereas in Latin America the range is just from $-3.01$ to $+2.75$ (mean=$0.05$; standard deviation=$1.42$).

We also ask CHES experts to evaluate how salient issues are to parties. As Figure 5 shows, differences in structuration are reflected in the salience of these dimensions across regions. Economic issues are considerably more salient than socio-cultural issues in Latin America; in Europe, consistent with two-dimensional party structuration, the salience of both dimensions is roughly the same.

**Variation within Europe and Latin America**

Pooling CHES-LA and CHES-Europe also enables us to explore how party competition varies within world regions. Following Bakker et al. (2012), we conduct country-specific confirmatory factor analyses and compare the CFI measure to assess structuration and dimensionality of individual party systems. Higher levels of CFI indicate more predictable associations across policy positions, and thus, more structured party systems. A larger improvement in CFI from the one- to the two-dimensional model indicates that party competition is structured more tightly around two distinct dimensions (Bakker et al., 2012).

The results of this analysis are presented in Figure 6, which maps 42 party systems on two dimensions. The $x$-axis shows the degree to which party systems in Europe and Latin America are structured (their overall highest CFI score). The $y$-axis presents the difference in the CFI when comparing the two-factor with the one-factor model. Larger differences on this axis reflect greater levels of two-dimensionality of a given party system.

As Figure 6 shows, there is considerable consistency in the level of structuration of our cases. Across both
regions, most party systems are highly structured (defined here as having a CFI over 0.90) although, as expected, this is true for a larger proportion of European countries (63%) than Latin American ones (58%). Still, with some exceptions, structuration of party systems in Latin America is not all that different from their European counterparts. Only Mexico, Peru, and Venezuela have a CFI of under 0.80, and they are, perhaps surprisingly, joined by two European countries: Latvia and Portugal. This is striking given the large body of work that has noted the relative prominence of clientelism, personalism, and party instability in Latin America compared to Europe. Our study suggests that these properties are not incompatible with relatively high programmatic or ideological structuration of party systems. We explore broader implications for democratic accountability in the conclusion.

Figure 6 also adds nuance to the inter-regional contrast between a unidimensional Latin America and a two-dimensional Europe. While most party systems in Latin America are structured around one dimension, this is less evident in Mexico and Uruguay. Indeed, the degree to which competition in Mexico is two-dimensional is similar to several European countries, including Latvia, Norway, and Slovakia. Likewise, although two-dimensional party competition is high in many European party systems, there are several countries that are predominantly structured around a single dimension (in which adding the second dimension does not improve the CFI by more than 0.1), including Spain, Hungary, Slovenia, the United Kingdom, Malta, Ireland, and Portugal. The greater range of dimensionality across Europe compared to Latin America can be further visualized in Figure 7. It plots parties in the least and most two-dimensional countries in each region: Mexico and Chile in Latin America (panels a and b); Spain and Lithuania in Europe (panels c and d). We estimate a fitted line to evaluate the degree to which positions on the economic dimension predict positions on the socio-cultural dimension. If party competition is articulated around a single dimension, we should expect parties to fall along the fitted line, as in Chile and Spain. Conversely, if competition is two-dimensional, positions on the economic dimension should not be strong predictors of positions on the socio-cultural dimension, which is more clearly the case in Lithuania than in Mexico. In sum, there are differences in dimensionality in each world region, but in Europe the differences are much greater than in Latin America.

Conclusion
This paper introduces CHES-LA and demonstrates its reliability and validity as a source of information about party systems in the region. Taking advantage of the overlap in measures between CHES-LA and CHES-EU, we show that party systems in Latin America are nearly as programmatically structured as those in Europe. Ideological organization around policy positions is not unique to consolidated democracies, but is also apparent in newer, less consolidated democracies. Our analysis confirms prior studies that highlight how Latin American parties organize along ideological lines (e.g., Saiegh 2009; Power and Zucco 2009; Wiesehomeier and Doyle 2012). However, as we discuss below, this does not mean Latin American party systems have equally strong programmatic linkages with voters.

We also document systematic differences in the character of ideological conflict in Europe and Latin America. In most European countries party competition is structured around two largely distinct axes, an increasingly salient socio-cultural dimension alongside a long-standing economic dimension. By contrast, ideological structuring in Latin America is mostly explained by a single dimension that largely revolves around the economy.

Our data opens several avenues for future research. For example, we detect important intra-regional variation in the extent and dimensionality of structuration in both regions. The data also reveal that party systems in Latin America seem to diverge more in their degree of structuration than in their dimensional complexity, while in Europe the converse appears to be the case. This is an area where further comparative analysis would be rewarding. For Latin America, the CHES data also estimate the ideological positioning of presidents, which can inform research on how they position themselves relative to their parties and coalitions.

The data will also facilitate research on the links between programmatic structuration of parties and citizens. The fact that Latin American party systems are programmatically structured is, in principle, positive for the region. Ideological conflict between parties is a necessary condition for democratic accountability and meaningful political representation. However, programmatic structuration is clearly not a sufficient condition. Citizens should also be able to recognize where political parties stand and evaluate whether their expectations have been met. Stability is important because it allows generally ill-informed citizens time to identify parties’ policy positions. In this sense, Latin America may present a puzzle. Although some have considered both party organization and institutionalization as necessary conditions for ideological structuration (Kitschelt et al., 2010), our work suggests instead that party systems in the region are programmatically structured yet not strongly institutionalized.

Declaration of conflicting interests
The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding
The authors appreciate financial support from the Horizon 2020 grant EUENGAGE (#649281), the Advanced ERC Grant
TRANSNATIONAL (#885026) and the Reckford Professorship at UNC-Chapel Hill, as well as from the Dawson Professorship and the Rapoport Family Foundation. We also thank the hundreds of expert respondents for generously sharing their expertise.

Supplementary Material
Supplemental material for this article is available online.

ORCID iDs
Cecilia Martínez-Gallardo  https://orcid.org/0000-0002-3700-1037
Nicolás de la Cerda  https://orcid.org/0000-0003-2474-9756

Notes
1. We use the terms ideological and programmatic structuration interchangeably to refer to the degree to which a party system is organized around one or more ideological policy dimensions.
2. The survey was fielded between July and October 2020, with a supplementary round of interviews in Peru in May 2021 to add parties following the April 2021 elections. For Venezuela we include Nicolás Maduro and Juan Guaidó, declared Acting President by the country’s National Assembly in early 2019. Supplemental Table A1 in the Appendix lists all parties and presidents.
3. Including complete and partial responses, the respondent average by country is 13.5, ranging from eight in Bolivia to 20 in Mexico. CHES-Europe averages 13.4 responses per country.
4. Since V-Party does not report the number of experts by country, we estimate these numbers using the first question available in the survey (v2paelcont). Given expected attrition in expert surveys, we are probably overestimating V-Party responses.
5. Subsequent analyses include only party placements due to the lack of information on president and/or prime minister placement in Europe.
6. See question wording in Supplemental Table A2.
7. The analyses presented here include all Latin American countries for which data was gathered. Supplemental Figures A1 through A5 and Supplemental Table A5 show that results are robust to the exclusion of Venezuela, which has not recently held competitive elections.
8. Of the 112 parties in CHES-LA, V-Party has information for 72, while GPS (Norris 2020) has information for 82, an overlap of 64% and 73%, respectively. We use the last PELA survey available for each country; survey years range from 2013 (Argentina and Paraguay) to 2018 (Mexico and Peru).
9. In Supplemental Table A9 we list outliers, that is, parties whose absolute distance when comparing CHES-LA to another data source (V-Party, GPS, PELA or MARPOR) is two or more points on the CHES 11-point scale. Reassuringly, we do not find systematic patterns by country or party across all data sources. Many outliers between CHES and V-Party or GPS are smaller parties.
10. Political decentralization did not reach the cutoff and was excluded. See Supplemental Table A3 for wording of the nine common items.
11. The CHES-Europe and CHES-Latin America datasets are available for download, at www.chesdata.eu. In addition to the policy positions and other questions analyzed here, CHES-LA also incorporates questions on policy positions of presidents, the characteristics of political parties and the president, and the nature of party linkages.
12. See Supplemental Table A4 for question wording.
13. In Latin America, our survey experts judge socio-cultural ideology as more salient than economic left-right in one country, Brazil (8%). At the party level, just 18 of 112 parties (16%) are estimated to attach greater salience to socio-cultural ideology than economic left-right ideology (i.e., the salience of the socio-cultural dimension is judged to be at least 0.5 higher on an 11-point scale). In Europe, in contrast, socio-cultural ideology is more salient in 13 countries (42%) and at the party level it is more salient in 118 of 272 parties (43%).
14. Alternatively, we can use the correlation between both factors to assess the relation between the two dimensions. The results in Supplemental Table A6 are highly consistent with those presented here.
15. It is beyond the scope of this study to explain cross-country variation in structuration and dimensional complexity; we are constrained by the low number of observations (42 party systems, of which 12 in Latin America). In Supplemental Tables A7 and A8 we include preliminary tests of three leading explanations: economic development, democratic experience, and party fractionalization. Like past studies (Bakker et al. 2012), we find a positive relationship between fractionalization and dimensional complexity, even when we take regional differences into account, which can be seen as further evidence of face validity for our measure. We also find a positive effect of GDP per capita on dimensional complexity but the effect disappears when we add controls.
16. For all countries see Supplemental Figures A6 and A7.

References

Author biographies
Cecilia Martínez-Gallardo is an Associate Professor of Political Science at the University of North Carolina at Chapel Hill. Her teaching and research interest are in Latin American political institutions and political behavior. She is a collaborator with the Executive Approval Project, the Chapel Hill Expert Survey-Latin America, as well as a co-coordinator of the Presidential Cabinets Project.

Nicolás de la Cerda is a PhD Candidate in Political Science at the University of North Carolina at Chapel Hill. His research focuses on political parties, public opinion, and political psychology in Latin America.

Jonathan Hartlyn is the K.J. Reckford Professor of Political Science at the University of North Carolina at Chapel Hill. His research focuses on issues of democratization, political institutions and state-society relations, with a particular emphasis on Latin America. Recent co-authored works have appeared in Research and Politics, Latin American Politics and Society, and the Oxford Research Encyclopedia on Politics.

Ryan Bakker is a Reader of Comparative Politics at the University of Essex. His research focuses on political parties, measuring ideological positions, and survey methodology. Recent co-authored works have been published in Political Science Research and Methods, European Journal of Political Research, and the Journal of European Public Policy.

Liesbet Hooghe is the W.R. Kenan Professor of Political Science at the University of North Carolina at Chapel Hill and Research Professor at the RSCAS, European University Institute, Florence. Her research focuses on political conflict in Western societies, political parties and public opinion, and multilevel governance. Recent articles have appeared in Electoral Studies, the European Journal of Political Research, and the Review of International Organizations.

Gary Marks is the Burton Craig Professor of Political Science at the University of North Carolina at Chapel Hill and Research Professor at the RSCAS, European University Institute, Florence. His research and teaching are chiefly in comparative politics, multilevel governance, and measurement. Recent articles have appeared in the British Journal of Political Science, the Journal of European Public Policy, and the Review of International Organizations.