V-Dem INSTITUTE

From Individual Parties to Party Systems: A New Approach to Calculate Party Systems' Variables

Fabio Angiolillo and Felix Wiebrecht

October 2023

UNIVERSITY OF GOTHENBURG
DEPT OF POLITICAL SCIENCE

Varieties of Democracy (V-Dem) is a unique approach to conceptualization and measurement of democracy. The headquarters – the V-Dem Institute – is based at the University of Gothenburg with 20 staff. The project includes a worldwide team with 5 Principal Investigators, 22 Project Managers, 33 Regional Managers, 134 Country Coordinators, Research Assistants, and almost 4,000 Country Experts. The V-Dem project is one of the largest ever social science research-oriented data collection programs.

Please address comments and/or queries to:

V-Dem Institute
Department of Political Science
University of Gothenburg
Sprängkullsgatan 19, Box 711
405 30 Gothenburg
Sweden
E-mail: contact@v-dem.net

V-Dem Working Papers are available in electronic format at https://www.v-dem.net

From Individual Parties to Party Systems: A New Approach to Calculate Party Systems' Variables[*]

Fabio Angiolillo[1] and Felix Wiebrecht[2]

[1]V-Dem Institute, University of Gothenburg
[2]University of Liverpool

Abstract

Party systems are multidimensional spaces. Although classical work has pointed this out already, empirical research lacked the tools to model these different dimensions empirically. We provide a new empirical framework that allows researchers to utilize existing party-level data and transform them into party-system-level data. In this paper, we highlight specifically the dimensions previously pointed out by Sartori (1976): Democratic-Authoritarian, Religious-Secular, Left-Right, and Inclusive-Exclusive. Three illustrative cases provide face validity for the soundness of our measures, while four descriptive interactions present the potential relationships these four new measures at the party-system level can have for future research. The empirical approach we introduce will also allow scholars to go beyond the dimensions we use here and can easily be used to compute additional party-system variables that will enrich the field of party-system research.

Keywords: Party Systems, Measurements, Parties, Left-Right, Inclusion, Religious, Democracy

Introduction

Party systems are defined by the existence and positions of political parties within legislative and executive bodies, generally divided between those in the government and the opposition (Sartori, 1976). Party systems' characteristics are a reflection of individual parties' political positions, while also accounting for their institutional powers and level of fragmentation between parties. As a result, party systems are subject to parties' policy and identity changes over time, which often have consequences affecting entire regimes.

Past work highlighted party-system characteristics as important in determining voting behavior (Dalton, 2008), regime stability in both, democracies and autocracies (Angiolillo, Wiebrecht, and Lindberg, 2023; Hicken and Kuhonta, 2015; Mainwaring, Scully, et al., 1995), polarization in society (Lupu, 2015; Bischof and Wagner, 2019), and decentralization (Riedl and Dickovick, 2014). Though this political dimension is crucial to study in political systems, there is a concerning lack of data on party systems in general and on how to calculate party-system variables in particular. With this paper, we aim to introduce a first General Equation to calculate party-system variables leveraging on a wealth of already available data on individual political parties and applicable across time, space, and topics.

By introducing a General Equation on party systems, we make two main contributions. First, we revitalize the field of studying party systems. On the one hand, there are important structural characteristics party systems have that previous work has focused on, such as the number of parties competing in elections, party systems' volatility, and the extent to which they are nationalized or regionalized (e.g., Mair, 1997; Hicken and Kuhonta, 2015; Sartori, 1976; Casal Bértoa and Enyedi, 2016; Golosov, 2010). On the other hand, scholars have also approached party systems by looking at the relationship between government and opposition, governmental parties' power-sharing dynamics, and representation (e.g., Gandhi, 2008; King et al., 1990). Our approach allows us to go beyond these characteristics and study additional dimensions of party systems that can complement the already existing structural approaches to party systems.

Second, we introduce a General Equation that can help transform party-level data into party-system measures enhancing the potential of already available datasets. We apply this new General Equation to Sartori (1976)'s "multidimensional space" framework, and we introduce four indices of party systems that have long been identified as laying at the foundation of it but not systematically measured: democratic-authoritarian, religious-secular, left-right economic, and inclusive-exclusive. A

resulting implication of this approach is that future research can utilize existing resources such as the Varieties of Party Identity and Organization (V-Party) by Lindberg et al. (2022) and Chapel-Hill Expert Survey (CHES) by Jolly et al. (2022), among others, to transform additional party-level variables into party-system variables. Rather than just studying the developments of party systems, this approach will also enable researchers to connect individual-level datasets on political parties with other national-level data and focus more specifically on the causes and consequences of party systems. Ultimately, this approach will advance research on party systems to an unprecedented scale.

Limitations to Party System Measures

A classic debate on party systems concerns their classification as a function of parties involved in the electoral competition (Bardi and Mair, 2008). A first approach suggested party systems as just synonyms of the number of parties, from two-party systems to multiparty systems (Lijphart et al., 1999). Another approach complements it by defining party systems according to the interaction between parties on different identities and positions (Sartori, 1976).

When it comes to unpacking party systems' policies salience and preferences, previous research shows their importance in explaining economic preferences and growth (Kitschelt et al., 2010; Dalton, 2008; Bizzarro et al., 2018), ideological polarization (Mair, 1997), parties' relationship with voters (Lupu, 2015; Laebens and Öztürk, 2021; Graham and Svolik, 2020), and changes in representation patterns over time (Coppedge, 1998; Duverger, 1964; Mair, 1997; Lupu, 2014; Luna et al., 2021). Policy salience within a given party system is then shaped by political parties' preferences *and* positions within the institutional setting (e.g., government and opposition), which define their interaction. Taken together, these preferences help explain the multidimensional aspects political competition entails (Casal Bértoa and Enyedi, 2016; Mair, 1997). As highlighted by Sartori (1976), party systems are "multidimensional spaces" that include economic (Slapin and Proksch, 2008; Benoit and Laver, 2003), cultural (Abou-Chadi and Wagner, 2020; Dassonneville, Hooghe, and Marks, 2023), ethnic (Posner, 2004; Vogt et al., 2015; Cederman, Wimmer, and Min, 2010), and even regime preferences (Angiolillo, Wiebrecht, and Lindberg, 2023) that can relate to each other in a multitude of combinations.

In translating the conceptualization of party systems to observable measures, the literature offers limited solutions. The most widely used measures only draw upon institutional features of party systems, such as the alternation of power between parties and if there is proportional representation

(Scartascini, Cruz, and Keefer, 2021; Casal Bértoa and Enyedi, 2022). Often these measures are entrenched in electoral laws and countries' constitutions, which offer straightforward data on the institutional offices' roles across countries. However, this approach is problematic if used alone as it empties party systems of that intra-party interaction emphasized by Sartori (1976, p. 44). By focusing on the infrastructure of party systems, these data hamper the complexity of individual parties' policy preferences.

A step forward in attempting to capture parties' features to explain national-level measures is proposed by Bizzarro, Hicken, and Self (2017) with their party institutionalization index (v2xps_party). They leverage four indicators on political parties and legislatures' cohesion measured at the national level by the V-Dem dataset (Coppedge et al., 2022; Pemstein et al., 2022): party organizations (v2psorgs), party branches (v2psprbrch), party linkages (v2psprlnks), distinct party platforms (v2psplats), and legislative party cohesion (v2pscohesv). However, this approach can result in potential challenges to accurately represent specific features of political parties composing the party system (Casal Bértoa, Enyedi, and Mölder, 2023). This approach creates a national-level variable on political parties that has not been computed using individual-level political parties' values. Hence, it is not possible to unpack individual parties' levels of institutionalization. In addition, the precise considerations of coders (i.e., whether they based their coding decision primarily on the largest party) also remain unknown. In consequence, measuring macro-level indices to capture political parties' values by using micro-level values from political parties still remains a challenge.

Capturing party-system level dimensions without discarding individual parties' characteristics then becomes of primary importance. Recently, there has been substantial growth in data availability on political parties' policy preferences, (Jolly et al., 2022; Lindberg et al., 2022), their internal organizations (Lindberg et al., 2022; Van Haute, Paulis, and Sierens, 2018; Angiolillo, 2023), and their manifestos (Gemenis, 2013), which allows to reverse the computation of party systems from a top-down to a bottom-up approach. Therefore, by aggregating political parties around a specific policy preference and ensuring that their institutional role is taken into consideration, we are able to preserve the "intra-party interaction" fundamental to define a party system. Hence, in re-framing the path from data available to party systems, we pivot to every political party embedded in the party system. In doing so, we are able to provide a general framework that users can develop and, leveraging on individual parties' policy preferences and/or their organization structures, define a variety of party-system measures.

General Equation of Party Systems

In developing a General Equation of party systems, we draw from Angiolillo et al.'s (2023) equation to define the levels of democracy at the party-system level and formulate a General Equation as:

$$Y_{PS} = \sum_{p=1}^{N}(\mathbf{x}_{gpt} * ws_{gpt}) + \sum_{p=1}^{N}(\mathbf{x}_{opt} * ws_{opt}) \tag{1}$$

Where the subscript "PS" refers to the party system, while "gp" to the parties belonging to the governmental coalition, and "op" to those sitting in the opposition. The subscript "t" refers to a given election-year in a country.[1] The script "ws" refers to the seat share of political parties belonging to the reference group (either in the government or opposition), which serves as a weight to determine parties' relative strength within the lower house (Angiolillo, Wiebrecht, and Lindberg, 2023). Parties with fewer representatives are in a weaker position to push forward their regime preferences, identities, and policies than parties with more members of parliament (MPs). Lastly, "x" refers to any potential variable of interest for which we have at least two parties within a party system that have valid values. This variable must be the same for government and opposition, and this will represent the party-system value "Y" on that specific variable. This passage is important because there must be homogeneity in what is captured at the party level across government and opposition and the outcome of interest at the party-system level.

One potential challenge is how to treat party systems that only admit one political party either *de jure* or *de facto* (Magaloni, 2006) as each potential party system dimension could be undermined by the lack of existence of opposition. For this reason, and because of the structure of Equation 1, we replace any missing values for a non-existent opposition with a value equal to 0 if the regime scores lower than 0.5 in the electoral democracy index (Coppedge et al., 2023a; Coppedge et al., 2023b; Pemstein et al., 2022). This approach assigns a 0 to the opposition only if the opposition has a missing value and, therefore, does not apply to hegemonic or competitive authoritarian regimes that allow opposition parties. The threshold on the democracy score is important since in some cases formation of the executive is delayed, or parties are not able to reach a governmental coalition also resulting in missing values for the opposition.

---

[1]Some datasets, such as V-Party, also sample countries that do not hold official elections, such as communist countries. In these cases, V-Party samples them at regular intervals, usually overlapping with ruling parties' congresses.

Multidimensional Party Systems

We build upon Sartori's (1976, p. 299-301) characterization of party systems as "multidimensional spaces" and Angiolillo et al.'s (2023) equation on democratic levels of party systems to provide additional party-system variables on the following three dimensions: religion, economic, and exclusion. These four dimensions together create Sartori's (1976) "multidimensional space," which represents the complex political field where each party within a given party system must interact and fit in. We apply Equation 1 to the V-Party dataset (Lindberg et al., 2022), which is the broadest dataset available on parties' identities and organizations covering 3,151 elections across 178 countries between 1970-2019 for a total of 3,467 political parties. As a result, we introduce these four dimensions spanning across 1,858 party systems between 1970 and 2019.

Regime Preferences

Political parties can have different regime preferences within the same party system. During autocratization episodes, an authoritarian incumbent can be challenged by a more democratic set of opposition parties (Selçuk and Hekimci, 2020; McCoy, Rahman, and Somer, 2018; Gamboa, 2022). At the other end of the scope, during democratization, there are a variety of parties upholding different regime preferences, from enhancing democracy to reverting to an authoritarian rule (Boese et al., 2021; Wilson et al., 2021; Wiebrecht et al., 2023). These diverse sets of preferences are channeled within the party system (Angiolillo, Wiebrecht, and Lindberg, 2023), which hinges on parties' preferences with their institutional roles, in government or opposition, to execute and fulfill their preferences. For these reasons, the equation on the democratic levels of party systems is as follows:

$$\text{Democracy Index}_{\text{PS}} =$$

$$1 - [(\sum_{p=1}^{N}(\text{v2paantipluralist}_{\text{gpt}} * ws_{\text{gpt}}) + \sum_{p=1}^{N}(\text{v2paantipluralist}_{\text{opt}} * ws_{\text{opt}})] \quad (2)$$

Here we use the antipluralist index by Medzihorsky and Lindberg (2023), *v2paantipluralist*, which runs from 0 being more pluralist to 1 being highly antipluralist. As our preferred direction runs from lower levels of democratic commitment to higher, we reach this with an easy mathematical adjustment to revert the scale by subtracting 1 before using the applied form of our General Equation 1. This allows

us to have the Party-System Democracy Index (PSDI) running from 0 as being closed single-party autocracies to 1 as being highly democratic party systems.

Economic Left-Right

The left-right division is probably one of the most well-studied dimensions in Western Europe (e.g., Mair, 1997; Slapin and Proksch, 2008; Benoit and Laver, 2003; Sartori, 1976). Although broader left-right ideology may lose its meaning when analyzing non-Western countries (Pan and Xu, 2018; Wu, 2023), economic policies promoted by parties and approved within legislatures are more comparable across different regimes. It can also be a useful measure to detect important economic reforms in authoritarian regimes that shifted from being staunchly communist to embracing globalization, as demonstrated by cases like China since 1978 and Vietnam from the 1980s (Malesky and London, 2014; Naughton, 1995). The equation on the party-system overall stance on the left-right continuum on economic policy is the result of the following equation:

$$\text{Left-Right Economic Index}_{\text{PS}} = (\sum_{p=1}^{N}(\text{v2pariglef}_{\text{gpt}} * ws_{\text{gpt}}) + \sum_{p=1}^{N}(\text{v2pariglef}_{\text{opt}} * ws_{\text{opt}}) \qquad (3)$$

In the Party-System Left-Right Economic Index (PSLRI), higher values reflect a more right-leaning economic position, while lower values correspond to more left-leaning economic positions. Left-leaning economic policies here refer to higher taxes, more regulation and government spending, and a more generous welfare state. Right-wing economic policies, on the other hand, involve privatization, lower taxes, less regulation, less government spending, and a leaner welfare state.

Exclusion

The ethnic-integration continuum in Sartori (1976)'s work is generally underdeveloped, yet it seems to refer to the extent to which a party system features parties whose policies and stances are in favor or against themes such as cultural superiority, immigration, and diversity in general. This differs from other conceptualizations of power-sharing across social groups (Sigman and Lindberg, 2019; Marquardt, 2021), and we identify two primary sub-dimensions in political parties' stances on the exclusion-integration continuum.

On the one hand, there is the extent of exclusionary identity political parties can have, which ranges from advocating radical cultural supremacy to strong opposition to that and instead, engagement with a more multicultural identity. Existing literature also suggests how this component goes to the heart of a party's ethnic identification (Chandra, 2005; Mor, 2022; Mudde, 2019). On the other hand, there are also a variety of exclusionary policies political parties can support, disregard, or oppose, which are also dependent on the political and cultural environments a party system is embedded in (Debus and Schulte, 2022; Akkerman, 2015; Van Spanje, 2010; Htun and Power, 2006; Wolbrecht, 2010). Among those that can influence political parties' exclusion dimension, we include their stances toward immigration and working women. Together these indicators define a political party's exclusion score,[2] which then allows us to develop the party system exclusion index as:

$$\text{Exclusion Index}_{\text{PS}} = 1 - [\sum_{p=1}^{N}(\text{Exclusion Index}_{\text{gpt}} * ws_{\text{gpt}}) + \sum_{p=1}^{N}(\text{Exclusion Index}_{\text{opt}} * ws_{\text{opt}})] \quad (5)$$

As our preferred direction for the Party-System Exclusion Index (PSEXI) runs from lower to higher exclusion preferences, we reach this with the same adjustment in Equation 2 and revert the scale by subtracting 1 before using the applied form of our General Equation 1.

Religion

Religion has long been a decisive factor in shaping the formation of party systems (Caramani, 2004; Ertman, 2009; Grzymała-Busse, 2023). A range of parties formed themselves either as "parties of religious defense" or as opposition parties rejecting further influence of the Church (Rokkan, 1966; Rokkan, 2009). Nevertheless, in the modern era, a consistent trend of secularization and with it, the decline of religion in party systems has been noted across Europe (Ignazi and Wellhofer, 2013; Van Kersbergen, 2008). In other parts of the world, however, religion, particularly Islam, still plays a major role, for instance in Indonesia (Pepinsky, Liddle, and Mujani, 2012) and Egypt (Masoud, 2014). Some autocratizing leaders have also increasingly invoked religious references as part of their political strategy in recent years such as Erdoğan in Turkey (Ozturk, 2021) and Orbán in Hungary (Ádám and

---

[2]The equation at the party-level is:

$$\text{Party's Exclusion Index}_{\text{PS}} = 2 * (v2paculsup) + 0.5 * (v2paimmig + v2pawomlab) \quad (4)$$

Bozóki, 2016). The extent to which religion plays a role in a given party system is calculated with the equation below using V-Party's variable on parties' references to God, religion, and/or religious texts to justify their political positions (v2parelig).

$$\text{Religion Index}_{\text{PS}} = 1 - [\sum_{p=1}^{N}(\text{v2parelig}_{\text{gpt}} * ws_{\text{gpt}}) + \sum_{p=1}^{N}(\text{v2parelig}_{\text{opt}} * ws_{\text{opt}})] \qquad (6)$$

Our preferred direction for the Party-System Religion Index (PSREI) runs from lower to higher levels of religion, and we reach this with the same adjustment in Equations 2 and 5, subtracting 1 before the General Equation 1.

Table 1 summarizes the four captured dimensions applying Equation 1 to Sartori (1976) multi-dimensional space framework by leveraging on V-Party's data as detailed in Equations 2-6.

Three Illustrative Cases: Germany, Hungary and Russia

In order to provide some face validity of our measures, we show the development of our four indices across three illustrative case studies highlighting important variation over time.

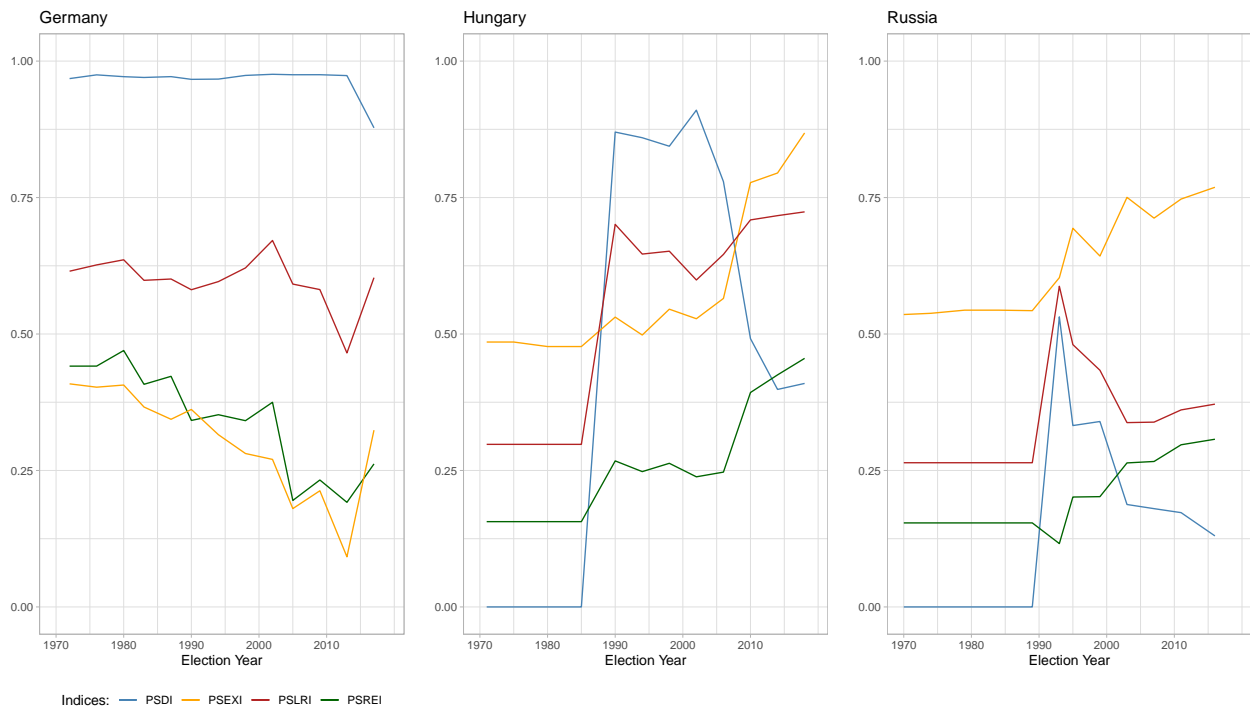Figure 1. Party-System Dimensions in Germany, Hungary and Russia

Table 1. Summary of the "Multidimensional Space" at the Party-System Level

Dimension	V-Party Variables	Specification	Party System
Economic Left-Right (PSLRI)	v2pariglef	Whether the economic policy of a given party is leaning on the left (0) or right (1).	A party system promotes more left-leaning (close to 0) or right-leaning policies (close to 1). Usually, multiparty systems should have (on average) a more neutral party system economic policy as it is one of the fundamental differences between political parties.
Authoritarian-Democratic (PSDI)	v2paantipluralist	How antipluralist a party is (Linz, 1990; Medzihorksy & Lindberg, 2023). Values closer to 0 reflect a more antipluralist party.	How democratic a party system is (Angiolillo et al., 2023). Higher values refer to more democratic party systems, while lower values to more authoritarian ones. When the value equals 0, it means that there is a single-party system.
Religious-Secular (PSREI)	v2parelig	How salient is religion in a party's discourse to justify its positions. Values closer to 0 resonate with more religious stances to justify their positions.	How much religion is present across party systems, where values closer to 0 resonate with more secluar party systems and scores closer to 1 with more religious party systems.
Exclusion-Inclusion (PSEXI)	v2paculsup, v2paimmig, v2pawomlab	How much a party promotes exclusion through cultural superiority and promotes integration policies. Values closer to 0 refer to parties promoting cultural superiority and anti-integration policies.	To what extent a party system enforces exclusion or integration policies. Values closer to 0 refer to party systems with more inclusionary stances, while values closer to 1 refer to party systems promoting more exclusive identities and anti-integration policies.

First, in Germany, the party system has conformed to high democratic standards throughout the period covered in the data (1970-2019). Only in 2017, with the entry of the Alternative for Germany (AfD) in the German parliament, the PSDI experienced a significant drop from 0.97 to 0.87. In addition, the German party system has also become more inclusive and open from 1970 onward. Nevertheless, the entry of the AfD is also associated with a worsening of the exclusion dimension, jumping from 0.09 in 2013 to 0.32, twice as big as the decrease in PSDI.

The PSLRI here oscillates around 0.6, corresponding to a moderate economic position driven primarily by the political strength of the Christian democrats of the CDU/CSU, up until 2009 when Die Linke entered the Bundestag. Their left-leaning agenda, unmatched by any of the other political parties represented in the lower house, managed to significantly move the economic orientation of the party system as low as 0.46. Once the AfD also became part of the parliament in 2017, the left-right dimension trended upwards towards a more right-leaning policy orientation at 0.6. Finally, along with the PSEXI, the German party system has also gradually become more secular since 1970. More recently, among the party-system dimensions, the PSREI has not had an appreciable change over the past two decades. Although the AfD has expressed strong Christian positions over the years, the multidimensional approach to changes at the party-system level hints towards a firm secular party system. As a result, by comparing the four indices it seems plausible to corroborate some findings on how religious stances are used to enhance exclusionary and antipluralist stances rather than in favor of more religious positions (Cremer, 2023).

Second, the Hungarian case in Figure 1 unfolds the brief democratization and recent autocratization episodes through the four components of the party system. It is possible to see how the PSDI sharply increased when the country democratized during the 1990s, moving from a single-party regime (PSDI is constant at 0 during the 1970-1985 period) and reaching its peak in the aftermath of the 2002 elections with a PSDI at 0.91. The glimpse of a highly democratic party system started to deteriorate ever since, with a gradual decline mainly driven by the increasingly anti-pluralist Fidesz party winning large majorities.

One of the dimensions most exposed to a change at the party-system level in Hungary is the PSEXI. On the one hand, exclusionary stances have always been present in the country and never reached levels as low and tolerant as in Germany, for example. While at the time of the fall of the Soviet Union Hungary reached levels around 0.5, this changed rapidly, especially since 2010 when the rhetoric emphasizing more exclusionary language helped worsening the PSEXI levels from 0.56 in 2006

to 0.77. While the importance of religion was at its lowest point in Hungary during the Communist era, it increased for the first time with the transition to a multi-party democracy. Similarly, Hungary's autocratization process also went hand in hand with an increased emphasis on religion and using it to justify parties' policies. The government's alliance between Fidesz and the Christian Democratic People's Party (KDNP) increased the PSREI which moved from 0.23 in 2002 to 0.45 in 2018. As Figure 1 shows, the upward movements of the Hungarian party system in exclusion and religious indices align with another decisive move of the party system towards a right-wing economic agenda. In 2017, Hungary registered a 0.72 on the PSLRI, one of the highest across Europe.

Third, Russia presents a case where the party system developed under authoritarian regimes, first as a closed party-based (Geddes, Wright, and Frantz, 2014) and then as a hegemonic electoral autocracy (Reuter, 2017; Levitsky and Way, 2010). The PSDI identifies the party-based autocracy during the Soviet Union, and similar to the Hungarian party system, it saw a steep increase with the fall of the Soviet Union, reaching its peak of 0.53 in 1993 during Yeltsin. As the democratization episode of Russia only lasted for a brief interlude, the PSDI as well gradually declined, worsening ever since Putin was appointed prime minister in 1999. Over the following two decades, Russia's party system's democratic levels eroded, and in 2016 reverted back to very authoritarian levels of 0.13. As Figure 1 shows, the worsening of the PSDI levels is also coupled with increases in two complementary dimensions: exclusion and religion.

While the Communist Party of the Soviet Union (CPSU) held political stances leaning towards social exclusion (Dutter, 1990; Aktürk, 2011), these have worsened in post-Soviet Russia. Along with the ruling party United Russia's increasing investments in the rhetoric of cultural superiority, parties in the opposition – such as the Communist Party of the Russian Federation and the Liberal Democratic Party of Russia – also hold strong positions related to cultural superiority (e.g., pan-Slavism). As a result, the PSEXI increased from 0.54 in 1989 to 0.77 in 2016. The PSREI was exposed to a similar development. The Communist rejection of religion is reflected by the constant flat line at 0.15 during the period 1970-1989, which started to increase rapidly during Putin's era and increased twice as much as during the CPSU by 2016, laying at 0.31.

Finally, the PSLRI moved from a score of 0.26 indicating far-left economic policies dominated by five-year plans under the CPSU rule to a more moderate, yet left-leaning score of 0.37 in 2016. However, during the immediate post-Soviet regime, Russia's party system moved decisively towards a more moderate and right-wing economic direction through Yeltsin's government liberalization policies

(Frye and Mansfield, 2004; Desai, 2005), moving the PSLRI to 0.59. The liberalization efforts only lasted for a brief spell and, as Figure 1 shows, the erosion of PSDI levels overlaps with the party system's move towards a left-wing economic stance.

Descriptive Associations

Figure 2 shows four exploratory interactions between these four dimensions of party systems. As the previous three case studies show, the multidimensional space of party systems entails the potential interaction between at least two of these four dimensions.

Figure 2. Party-System Dimensions, Four Descriptive Relationships
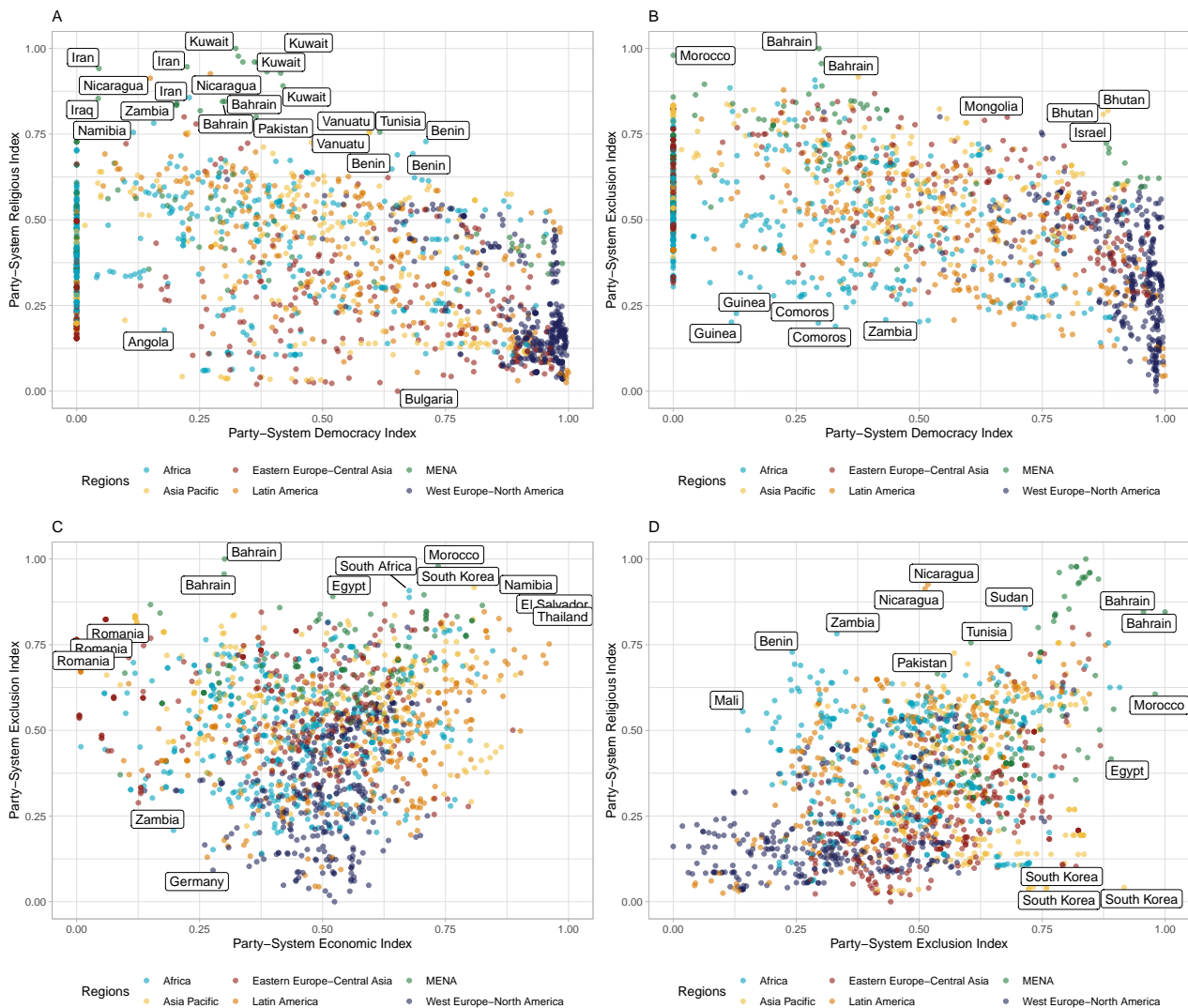
Panel A reports the relationship between the PSDI and the PSREI, which presents a sharp negative relationship. Party systems with higher levels of democracy are strongly related to their lower levels of using religion to justify policies and political positions. The literature shows some evidence of the relationship between religion and the development of democratic institutions (Gomez, 2022), and here we highlight two main aspects of this relationship related to party systems. First, while party systems in Western European and North American countries show limited variation with high levels of democratic and secular stances, other regions present a higher variation.

Second, focusing on extreme cases in Figure 2 Panel A, it is possible to highlight the stark divide between Communist and post-Communist regimes and Islamic regimes. On the one hand, Communist regimes, such as the Soviet Union and China, and even former Communist party-based regimes, like Angola during their first multi-party elections in 1992 and Bulgaria during their 2001 elections at the bottom of Panel A, show low levels of religious positions by political parties within the party system. On the other hand, Islamic states such as Kuwait, Iran, and Iraq present, as expected, very high levels of religion at the party-system level, which implies that virtually every party represented in the lower house uses religion to justify their political stances. At the same time, most of these countries have experience with single-party regimes, such as Iraq during the Ba'th Party rule (1968-2003) (Sassoon, 2012), or very limited party competition such as in Kuwait or Iran.

Panel B presents the association between PSDI and PSEXI. Similar to Panel A, this is also a negative relationship where more democratic party systems are also more inclusive. However, there are some differences. First, the relationship is less sharp than in Panel A. Second, although the literature shows that inclusion is at the core of democratic institutions (Sigman and Lindberg, 2019; Dahl, 2008), Western European and North American party systems present a higher variation in exclusion levels than their democratic levels. Opposed to this, many Sub-Saharan party systems are more exclusive than the global average party system.

Panel C introduces the relationship between PSEXI and PSLRI. This relationship shows how party systems upholding more moderate economic stances – e.g., around the mean of 0.5 (Pemstein et al., 2022) – also reflect their general more inclusive stances. Conversely, more extreme economic stances conveyed in the party systems (i.e., far-right or far-left/communist) resonate with severe exclusion stances as well. We focus on the two extreme cases on the top-right and top-left in Panel C: El Salvador and Albania. First, El Salvador was exposed to three political parties advocating for far-right economic positions – Nationalist Republican Alliance (ARENA), National Conciliation Party

14

(PCN), and Christian Democratic Party (PDC) – that alternated in the executive position during the four decades between the 1960s and 2000s. This was also enhanced by the prolonged Salvadoran Civil War (1979-1992), which had severe impacts on citizens in electing a variety of parties that upheld far-right and exclusionary positions (Manning, 2007; De Zeeuw, 2010; Wantchekon, 1999). Second, Albania during the Communist period under Ever Hoxha (1945-1985) not only enforced five-year plans to organize a socialist economy, but it was also one of the most exclusionary Communist regimes (Fevziu, 2016), relegating the party system to the top-left corner in Panel C.

Panel D reports the positive association between PSEXI and PSREI. Party systems in Western Europe and North America are, on average, the most inclusive and secular, which results in a high density on the bottom-left corner of Panel D. In Eastern Europe and Central Asia, most party systems are very secular but the region shows a strong relationship between the two indices. Beyond some of the party systems in the Middle East where the two dimensions relate to each other, one also finds examples of this connection focusing on historical party systems in the West. An example is Cyprus between the 1970s and 1980s when the territorial dispute on the island stirred political parties in a more religious and exclusionary direction. Among the extreme outliers, we find South Korea in the 1980s during Chun Doo-hwan's repressive dictatorship that was not religious but highly exclusionary (bottom-right in Panel D) and Mali with relatively high levels on the PSREI during the democratization in the 1990s (center-left in Panel D).

Conclusion

These new variables provide a variety of empirical measures, which have the potential to open new research avenues on the "multidimensional space" party systems have. Through a new empirical approach, we provide a new tool to compute party systems' dimensions leveraging on the growing number of data sources available at the party level. This has the strength of using all available information on parties rather than using national variables that can lead to misspecification.

Among the wide set of new research questions these variables can lead to, we would like to highlight at least two potential research lines. First, we are now able to gauge the *timing* of these four dimensions' development, which is key to evaluating causes and potential policy implications that new parties or the departure of well-established parties could bring within party systems. Second, we are well-positioned to explore whether there are *sequences* these four dimensions can lead to. So far,

literature has greatly focused on one-dimensional aspects of parties and, more rarely, party systems. By relaxing the one-dimensionality, we are left with new questions on whether these dimensions are related to each other, how, and with what consequences.

References

Abou-Chadi, Tarik and Markus Wagner (2020). "Electoral fortunes of social democratic parties: do second dimension positions matter?" In: *Journal of European Public Policy* 27.2, pp. 246–272.

Ádám, Zoltán and András Bozóki (2016). "State and faith: Right-wing populism and nationalized religion in Hungary". In: *Intersections. East European Journal of Society and Politics* 2.1.

Akkerman, Tjitske (2015). "Immigration policy and electoral competition in Western Europe: A fine-grained analysis of party positions over the past two decades". In: *Party Politics* 21.1, pp. 54–67.

Aktürk, Şener (2011). "Regimes of ethnicity: comparative analysis of Germany, the Soviet Union/post-Soviet Russia, and Turkey". In: *World Politics* 63.1, pp. 115–164.

Angiolillo, Fabio (2023). "Introducing the One-Party Membership Dataset: A dataset on party membership in autocracies". In: *Journal of Peace Research*, pp. 1–15.

Angiolillo, Fabio, Felix Wiebrecht, and Staffan I. Lindberg (2023). "Democratic-Autocratic Party Systems: A New Index". In: *V-Dem Working Paper* 143.

Bardi, Luciano and Peter Mair (2008). "The parameters of party systems". In: *Party politics* 14.2, pp. 147–166.

Benoit, Kenneth and Michael Laver (2003). "Estimating Irish party policy positions using computer wordscoring: The 2002 election–a research note". In: *Irish Political Studies* 18.1, pp. 97–107.

Bischof, Daniel and Markus Wagner (2019). "Do voters polarize when radical parties enter parliament?" In: *American Journal of Political Science* 63.4, pp. 888–904.

Bizzarro, Fernando, John Gerring, Carl Henrik Knutsen, Allen Hicken, Michael Bernhard, Svend-Erik Skaaning, Michael Coppedge, and Staffan I Lindberg (2018). "Party strength and economic growth". In: *World Politics* 70.2, pp. 275–320.

Bizzarro, Fernando, Allen Hicken, and Darin Self (2017). "The V-Dem party institutionalization index: a new global indicator (1900-2015)". In: *V-Dem Working Paper* 48.

Boese, Vanessa A, Amanda B Edgell, Sebastian Hellmeier, Seraphine F Maerz, and Staffan I Lindberg (2021). "How democracies prevail: democratic resilience as a two-stage process". In: *Democratization* 5.28, pp. 885–907.

Caramani, Daniele (2004). *The nationalization of politics: The formation of national electorates and party systems in Western Europe*. Cambridge University Press.

Casal Bértoa, Fernando and Zsolt Enyedi (2016). "Party system closure and openness: Conceptualization, operationalization and validation". In: *Party politics* 22.3, pp. 265–277.

— (2022). "Who governs Europe? A new historical dataset on governments and party systems since 1848". In: *European Political Science* 21.1, pp. 150–164.

Casal Bértoa, Fernando, Zsolt Enyedi, and Martin Mölder (2023). "Party and Party System Institutionalization: Which Comes First?" In: *Perspectives on Politics*, 1–19. DOI: 10.1017/S1537592723002530.

Cederman, Lars-Erik, Andreas Wimmer, and Brian Min (2010). "Why do ethnic groups rebel? New data and analysis". In: *World politics* 62.1, pp. 87–119.

Chandra, Kanchan (2005). "Ethnic parties and democratic stability". In: *Perspectives on politics* 3.2, pp. 235–252.

Coppedge, Michael (1998). "The dynamic diversity of Latin American party systems". In: *Party Politics* 4.4, pp. 547–568.

Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I Lindberg, Jan Teorell, Nazifa Alizada, David Altman, Michael Bernhard, Agnes Cornell, M Steven Fish, et al. (2022). *VDem Dataset v12*.

Coppedge, Michael, John Gerring, Carl Henrik Knutsen, Staffan I. Lindberg, Jan Teorell, David Altman, Michael Bernhard, Agnes Cornell, M. Steven Fish, Lisa Gastaldi, Haakon Gjerløw, Adam Glynn, Sandra Grahn, Allen Hicken, Katrin Kinzelbach, Kyle L. Marquardt, Kelly McMann, Valeriya Mechkova, Anja Neundorf, Pamela Paxton, Daniel Pemstein, Oskar Rydén, Johannes von Römer, Brigitte Seim, Rachel Sigman, Svend-Erik Skaaning, Jeffrey Staton, Aksel Sundström, Eitan Tzelgov, Luca Uberti, Yi ting Wang, Tore Wig, and Daniel Ziblatt (2023a). "V-Dem Codebook v13". In.

Coppedge, Michael, Gerring John, Carl Henrik Knutsen, Staffan I. Lindberg, Jan Teorell, Kyle L. Marquardt, Juraj Medzihorsky, Daniel Pemstein, Lisa Gastaldi, Sandra Grahn, Josefine Pernes, Oskar Rydén, Johannes von Römer, Eitan Tzelgov, Yi ting Wang, and Steven Wilson (2023b). "V-Dem Methodology v13". In.

Cremer, Tobias (2023). "A religious vaccination? How Christian communities react to right-wing populism in Germany, France and the US". In: *Government and Opposition* 58.1, pp. 162–182.

Dahl, Robert A (2008). *Polyarchy: Participation and opposition*. Yale University Press.

Dalton, Russell J (2008). "The quantity and the quality of party systems: Party system polarization, its measurement, and its consequences". In: *Comparative political studies* 41.7, pp. 899–920.

Dassonneville, Ruth, Liesbet Hooghe, and Gary Marks (2023). "Transformation of the political space: A citizens' perspective". In: *European Journal of Political Research*.

De Zeeuw, Jeroen (2010). "'Sons of war': parties and party systems in post-war El Salvador and Cambodia". In: *Democratization* 17.6, pp. 1176–1201.

Debus, Marc and Felix Schulte (2022). "How party competition shapes ethnic parties' positions on migration and immigration". In: *Party Politics*, p. 13540688221136107.

Desai, Padma (2005). "Russian retrospectives on reforms from Yeltsin to Putin". In: *Journal of Economic Perspectives* 19.1, pp. 87–106.

Dutter, Lee E (1990). "Theoretical perspectives on ethnic political behavior in the Soviet Union". In: *Journal of Conflict Resolution* 34.2, pp. 311–334.

Duverger, Maurice (1964). *Political Parties*. Wiley.

Ertman, Thomas (2009). "Western European party systems and the religious cleavage". In: *Religion, class coalitions, and welfare states*, pp. 39–55.

Fevziu, Blendi (2016). *Enver Hoxha: The Iron Fist of Albania*. Bloomsbury Publishing.

Frye, Timothy and Edward D Mansfield (2004). "Timing is everything: Elections and trade liberalization in the postcommunist world". In: *Comparative Political Studies* 37.4, pp. 371–398.

Gamboa, Laura (2022). *Opposition at the Margins*. Cambridge University Press.

Gandhi, Jennifer (2008). "Political institutions under dictatorship". In.

Geddes, Barbara, Joseph Wright, and Erica Frantz (2014). "Autocratic breakdown and regime transitions: A new data set". In: *Perspectives on politics* 12.2, pp. 313–331.

Gemenis, Kostas (2013). "What to do (and not to do) with the comparative manifestos project data". In: *Political Studies* 61, pp. 3–23.

Golosov, Grigorii V (2010). "The effective number of parties: A new approach". In: *Party politics* 16.2, pp. 171–192.

Gomez, Raul (2022). "When the chickens come home to roost: The long-term impact of party positions on religious voting". In: *European Journal of Political Research* 61.2, pp. 566–585.

Graham, Matthew H and Milan W Svolik (2020). "Democracy in America? Partisanship, polarization, and the robustness of support for democracy in the United States". In: *American Political Science Review* 114.2, pp. 392–409.

Grzymała-Busse, Anna M (2023). *Sacred Foundations: The Religious and Medieval Roots of the European State*. Princeton University Press.

Hicken, Allen and Erik Martinez Kuhonta (2015). *Party system institutionalization in Asia: democracies, autocracies, and the shadows of the past*. Cambridge University Press.

Htun, Mala and Timothy J Power (2006). "Gender, parties, and support for equal rights in the Brazilian Congress". In: *Latin American Politics and Society* 48.4, pp. 83–104.

Ignazi, Piero and E Spencer Wellhofer (2013). "Votes and votive candles: Modernization, secularization, Vatican II, and the decline of religious voting in Italy: 1953–1992". In: *Comparative Political Studies* 46.1, pp. 31–62.

Jolly, Seth, Ryan Bakker, Liesbet Hooghe, Gary Marks, Jonathan Polk, Jan Rovny, Marco Steenbergen, and Milada Anna Vachudova (2022). "Chapel Hill expert survey trend file, 1999–2019". In: *Electoral Studies* 75, p. 102420.

King, Gary, James E Alt, Nancy Elizabeth Burns, and Michael Laver (1990). "A unified model of cabinet dissolution in parliamentary democracies". In: *American Journal of Political Science*, pp. 846–871.

Kitschelt, Herbert, Kirk A Hawkins, Juan Pablo Luna, Guillermo Rosas, and Elizabeth J Zechmeister (2010). *Latin American party systems*. Cambridge University Press.

Laebens, Melis G and Aykut Öztürk (2021). "Partisanship and autocratization: Polarization, power asymmetry, and partisan social identities in Turkey". In: *Comparative Political Studies* 54.2, pp. 245–279.

Levitsky, Steven and Lucan A Way (2010). *Competitive authoritarianism: Hybrid regimes after the Cold War*. Cambridge University Press.

Lijphart, Arend et al. (1999). *Patterns of democracy: Government forms and performance in thirty-six countries*. Yale university press.

Lindberg, I Staffan, Nils Düpont, Masaaki Higashijima, YB Kavasogly, Kyle L Marquardt, Michael Bernhard, Holger Döring, A Hicken, M Laebens, et al. (2022). "Varieties of Party Identity and Organization (V-Party) Dataset V2". In.

Luna, Juan Pablo, Rafael Piñeiro Rodríguez, Fernando Rosenblatt, and Gabriel Vommaro (2021). "Political parties, diminished subtypes, and democracy". In: *Party Politics* 27.2, pp. 294–307.

Lupu, Noam (2014). "Brand dilution and the breakdown of political parties in Latin America". In: *World Politics* 66.4, pp. 561–602.

— (2015). "Party polarization and mass partisanship: A comparative perspective". In: *Political Behavior* 37, pp. 331–356.

Magaloni, Beatriz (2006). *Voting for autocracy: Hegemonic party survival and its demise in Mexico*. Vol. 296. Cambridge University Press Cambridge.

Mainwaring, Scott, Timothy Scully, et al. (1995). *Building democratic institutions: Party systems in Latin America*. Stanford University Press Stanford.

Mair, Peter (1997). *Party system change: approaches and interpretations*. Oxford University Press.

Malesky, Edmund and Jonathan London (2014). "The political economy of development in China and Vietnam". In: *Annual Review of Political Science* 17, pp. 395–419.

Manning, Carrie (2007). "Party-building on the heels of war: El Salvador, Bosnia, Kosovo and Mozambique". In: *Democratisation* 14.2, pp. 253–272.

Marquardt, Kyle L (2021). "Measuring politically-relevant identity, with and without groups". In: *V-Dem Working Paper* 115.

Masoud, Tarek (2014). *Counting Islam: Religion, class, and elections in Egypt*. Cambridge University Press.

McCoy, Jennifer, Tahmina Rahman, and Murat Somer (2018). "Polarization and the global crisis of democracy: Common patterns, dynamics, and pernicious consequences for democratic polities". In: *American Behavioral Scientist* 62.1, pp. 16–42.

Medzihorsky, Juraj and Staffan I Lindberg (2023). "Understanding Autocratization: The Role of Anti-Pluralist Parties". In: *Party Politics*.

Mor, Maayan (2022). "Government policies, new voter coalitions, and the emergence of ethnic dimension in party systems". In: *World Politics* 74.1, pp. 121–166.

Mudde, Cas (2019). *The far right today*. John Wiley & Sons.

Naughton, Barry (1995). *Growing out of the plan: Chinese economic reform, 1978-1993*. Cambridge university press.

Ozturk, Ahmet Erdi (2021). *Religion, identity and power: Turkey and the Balkans in the twenty-first century*. Edinburgh University Press.

Pan, Jennifer and Yiqing Xu (2018). "China's ideological spectrum". In: *The Journal of Politics* 80.1, pp. 254–273.

Pemstein, Daniel, Kyle L. Marquardt, Eitan Tzelgov, Yi-ting Wang, Juraj Medzihorsky, Joshua Krusell, Farhad Miri, and Johannes von Römer (2022). "The V–Dem Measurement Model: Latent Variable Analysis for Cross-National and Cross-Temporal Expert-Coded Data". In: *V-Dem Working Paper* 21, 7th edition.

Pepinsky, Thomas B, R William Liddle, and Saiful Mujani (2012). "Testing Islam's political advantage: Evidence from Indonesia". In: *American Journal of Political Science* 56.3, pp. 584–600.

Posner, Daniel N (2004). "Measuring ethnic fractionalization in Africa". In: *American journal of political science* 48.4, pp. 849–863.

Reuter, Ora John (2017). *The origins of dominant parties: Building authoritarian institutions in post-Soviet Russia*. Cambridge University Press.

Riedl, Rachel Beatty and J Tyler Dickovick (2014). "Party systems and decentralization in Africa". In: *Studies in Comparative International Development* 49, pp. 321–342.

Rokkan, Stein (1966). *Norway: Numerical democracy and corporate pluralism*. Chr. Michelsens institutt.

— (2009). *Citizens, elections, parties: Approaches to the comparative study of the processes of development*. ECPR Press.

Sartori, Giovanni (1976). *Parties and party systems: A framework for analysis*. ECPR press.

Sassoon, Joseph (2012). *Saddam Hussein's Ba'th Party: Inside an authoritarian regime*. Cambridge University Press.

Scartascini, Carlos, Cesi Cruz, and Philip Keefer (2021). "The database of political institutions 2020 (dpi2020)". In: *Washington, Banco Interamericano de Desarrollo*.

Selçuk, Orcun and Dilara Hekimci (2020). "The rise of the democracy–authoritarianism cleavage and opposition coordination in Turkey (2014–2019)". In: *Democratization* 27.8, pp. 1496–1514.

Sigman, Rachel and Staffan I Lindberg (2019). "Democracy for all: conceptualizing and measuring egalitarian democracy". In: *Political Science Research and Methods* 7.3, pp. 595–612.

Slapin, Jonathan B and Sven-Oliver Proksch (2008). "A scaling model for estimating time-series party positions from texts". In: *American Journal of Political Science* 52.3, pp. 705–722.

Van Haute, Emilie, Emilien Paulis, and Vivien Sierens (2018). "Assessing party membership figures: the MAPP dataset". In: *European Political Science* 17, pp. 366–377.

Van Kersbergen, Kees (2008). "The Christian democratic phoenix and modern unsecular politics". In: *Party Politics* 14.3, pp. 259–279.

Van Spanje, Joost (2010). "Contagious parties: Anti-immigration parties and their impact on other parties' immigration stances in contemporary Western Europe". In: *Party Politics* 16.5, pp. 563–586.

Vogt, Manuel, Nils-Christian Bormann, Seraina Rüegger, Lars-Erik Cederman, Philipp Hunziker, and Luc Girardin (2015). "Integrating data on ethnicity, geography, and conflict: The ethnic power relations data set family". In: *Journal of Conflict Resolution* 59.7, pp. 1327–1342.

Wantchekon, Leonard (1999). "Strategic voting in conditions of political instability: The 1994 elections in El Salvador". In: *Comparative Political Studies* 32.7, pp. 810–834.

Wiebrecht, Felix, Yuko Sato, Marina Nord, Martin Lundset, Fabio Angiolillo, and Staffan Lindberg (2023). "State of the World: Defiance in the Face of Autocratization". In: *Democratization*, pp. 1–25.

Wilson, Matthew C, Juraj Medzihorsky, Seraphine F Maerz, Patrik Lindenfors, Amanda B Edgell, Vanessa A Boese, and Staffan I Lindberg (2021). "Episodes of liberalization in autocracies: A new approach to quantitatively studying democratization". In: *Political Science Research and Methods*, pp. 1–20.

Wolbrecht, Christina (2010). *The politics of women's rights: Parties, positions, and change.* Princeton University Press.

Wu, Jason Y (2023). "Categorical confusion: Ideological labels in China". In: *Political Research Quarterly* 76.2, pp. 524–539.