## Follow the Foreign Leader?

## Why Following Foreign Incumbents is an Effective Electoral Strategy

Previous research suggests that political parties respond to left-right policy positions of successful foreign political parties ("foreign leaders"). We evaluate whether this is an effective electoral strategy: specifically, do political parties gain votes in elections when they respond to successful foreign parties? We argue that parties that follow foreign leaders will arrive at policy positions closer to their own (domestic) median voter, which increases their electoral support. The analysis is based on an two-stage model specification of parties' vote shares and suggests that following foreign leaders is a beneficial election strategy in national election because it allows them to better identify the position of their own median voter. These findings have important implications for our understanding of political representation, parties' election strategies, and for policy diffusion.

Understanding national election outcomes leads scholars to focus on national-level factors. Most prominently, political parties tend to adopt policy stances that are close to the median voter in order to gain votes (Dow 2001, 2011; Downs 1957; Erikson et al. 2002; McDonald and Budge 2005; Budge et al. 2012; Soroka and Wlezien 2010). A country's economic performance also affects how incumbents perform in elections (Duch and Stevenson 2008; Lewis-Beck 1988; Paldam 1991; Powell and Whitten 1993), while work on governing experience finds that governing parties shift position more than opposition parties (Bawn and Somer-Topcu 2012; Greene 2015; Schumacher et al. 2015). There are also several studies suggesting that parties respond to rival parties (Adams and Somer-Topcu 2009; Meguid 2005, 2008; Williams 2015; Williams and Whitten 2015). Abou-Chadi and Orlowski (2016) contend that the competitiveness of the election influences parties' electoral strategies, with close elections pressuring big parties to moderate. In light of these numerous factors that plausibly affect party strategies and election outcomes, scholars have shown that parties cope with uncertainty by employing heuristics or decision rules in the context of national-level party competition (Budge 1994; Laver 2005; Somer-Topcu 2009, 2015; see also Budge et al. 2010).

Böhmelt et al. (2016) present evidence that international factors influence electoral strategies, contending that "party policy diffusion" occurs as parties learn from and emulate foreign incumbent parties' policies. Ultimately, parties' policy positions at home are influenced by political parties abroad. We extend this research to argue that parties emulate and learn from foreign parties that have recently been in office (recent incumbent parties) in order to be more successful themselves. An effective electoral strategy is thus to follow the lead of successful
foreign parties or "follow the foreign leader." We claim that in their pursuit of a competitive party platform in national elections, parties learn from and emulate others that have succeeded in winning office in foreign countries. Focusing on the policies of foreign incumbents is a useful heuristic, helping parties to make complex decisions under bounded rationality. Inspired by the policy diffusion literature (see Gilardi 2010, 2012), our understanding of parties' election strategies is significantly increased by considering the role of foreign incumbents' policies in explaining a focal party's electoral success.

To this end, we evaluate whether following foreign incumbents is indeed a useful heuristic in an uncertain electoral context, and whether it actually helps parties to be more successful in national elections. We estimate parameters using a two-stage model approach that explicitly accounts for the sequence of decisions. In particular, this empirical setup allows us to model parties' policy distance from the median voter as a function of learning from and emulating foreign parties. Our empirical results highlight that political parties that follow foreign leaders' policy positons arrive at positions more proximate to their own domestic median voter position. Proximity to the median voter, in turn, enhances their electoral support. Political parties that follow successful foreign incumbents thus increase their vote share in the next election. The implications of this finding is that there are not only domestic, but also transnational influences to explain (a) the policy positions political parties adopt to compete and succeed in elections and (b) eventually their degree of success in national elections.

Identifying the "follow the foreign leader" electoral strategy is important for several reasons. First, it contributes to numerous studies on political parties' election strategies (Adams
and Merrill 2009; Alvarez et al. 2000a, 2000b; Meguid 2005, 2008; Schofield 2003, 2004; Schofield et al. 1998a, 1998b; Schofield and Sened 2006; Spoon 2011; in the U.S., see Burden 2001; Erikson and Wright 1997; Erikson et al. 2002; Ansolabehere et al. 2001; Canes-Wrone et al. 2002; Shor and Rogowski forthcoming). We introduce a new international factor - the policies of foreign incumbent parties - to explain domestic-level election outcomes.

Second, our work has normative implications for how democracy works. If parties are supposed to "channel" the median voter preference, then this international effect of foreign incumbent parties introduces an alternative channel and may be relevant to theorists of democracy who highlight the role of public opinion in emphasizing parties' policy positions in elections (Powell 2000).

Third, many scholars seek to understand how international factors influence governments' policies. The implication of our work is that one causal mechanism for understanding government policy diffusion is that it occurs through political parties before they legislate and implement policies. Political parties learn from or emulate successful foreign parties in order to compete in their own national elections.

## Why Following the Foreign Leader Is an Effective Strategy

We assume that parties seek office and that they face uncertainty in elections and difficulty in calculating optimal strategies when seeking office. Previous studies developed the argument that parties might rely on heuristics to deal with these circumstances of complexity and uncertainty (e.g., Budge 1994; Laver 2005). That is, office-seeking parties could employ the
heuristic of learning from and emulating the policies of foreign incumbent parties, and foreign office-holders serve as an available precedent for a focal party when developing its electoral strategy in order to win office. The questions remain, however, whether and why following the foreign leader would be a strategy for being more successful in elections?

The search for electoral success is the search for the political center ground (see Downs 1957; Huber and Powell 1994; Stimson, Mackuen, and Erikson 1995; Powell 2000; McDonald and Budge 2005). If policy proximity to the median voter allows parties to compete more successfully in national elections, and median voter positions are similar across countries, ${ }^{1}$ then following foreign leaders potentially helps parties because it helps them estimate more accurately where their own median voter is located under uncertainty. Below, the argument for this expectation is developed, while the appendix introduces a statistical model that highlights why following foreign incumbents is a more reliable heuristic than alternative competing heuristics such as one that would factor in all foreign party positions: parties can more precisely estimate the position of foreign parties that are incumbents compared to other foreign parties, so the evidence they bring to estimating the domestic median should be weighted more heavily. ${ }^{2}$

[^0]Political parties frame success in terms of winning elections and attaining office.
Although several factors influence their chances of doing so, theory and empirical evidence point out that the search for office is the search for the political center ground. Parties do indeed respond to the preferences of the median voter, making this factor one of the strongest and most robust predictors in the research on party incentives and behavior (Downs 1957; Huber and Powell 1994; Stimson, Mackuen, and Erikson 1995; Powell 2000; McDonald and Budge 2005; Adams and Merrill 2009). All this applies under the assumption that the election context is characterized by uncertainty, and that parties may find it difficult to develop optimal election strategies (Budge 1994; Laver 2005; Budge et al. 2010).

We contend that following the foreign leader can help parties to identify the position of their own domestic median voter and, thus, perform more effectively in elections. Parties that
positions (see also the Appendix), the financial costs of this are arguably less than commissioning special polls with self-placement questions (Jennings and Wlezien 2018). Having said that, domestic rival parties "at home" also provide a crucial source of information (Laver 2005; Adams and Somer-Topcu 2009; Adams 2012; Bawn and Somer-Topcu 2012; Somer-Topcu 2015; Williams and Whitten 2015). We find evidence for this in our setup as well if we replace the variable that measures policy distances to foreign incumbents with a measure of the distances to domestic party positions. When doing so, the estimates are slightly stronger for the latter variable than for the former. This suggests that information from abroad supplement domestic sources of information - such as special polling and domestic rival parties' policies - that party strategists may rely on when competing in elections.
occupy left-right policy positions close to the median voter tend to gain more votes in elections (Ezrow 2010). Political parties that govern (foreign leaders) in other countries will generally have performed well in their elections and their policies will proxy policies that are popular with the median voters abroad. This argument assumes that although parties have opinion polls and focus groups at their disposal, they still face considerable uncertainty about where to locate, and that there are cognitive constraints for processing that information (Simon 1955; Budge 1994; Bendor, Mookherjee, and Ray 2005; Bendor et al. 2011). Computational models also emphasize that successful strategies for locating in the multidimensional political space push parties toward the center, though not necessarily as far as complete convergence (Laver and Sergenti 2012). Among their problems in navigating the complex trade-offs they face is locating where the center ground is and what the median voter wants.

To cope with this uncertainty, Budge (1994; see also Budge et al. 2010), Laver (2005), and others argue that parties use heuristics, i.e., cognitive shortcuts (see Tversky and Kahneman 1982: 164) as a guide to where to locate. In seeking to assess whether a specific policy (position) will help to perform better in the next election, party strategists relying on a heuristic would, for example, base their decision of whether to take over that specific position or not on the number of instances they can recall when foreign incumbents successfully adopted this position as part of their platforms. In turn, to increase their own chances of electoral success, they would then try to resemble those foreign incumbents more closely, which increases the chances of adopting that foreign party's position(s). Cognitive psychology and behavioral economics suggest therefore that parties will follow foreign leaders. Heuristics exist in a competitive environment. They are
born by individual users located within, in our case, party institutional structures and their standard operating procedures. If a heuristic is not successful, the careers of those who bear them will not flourish, while operating procedures and, eventually, even structures may change. Parties that are unsuccessful in elections over long periods may split or cease to exist. Unless there are reasons for thinking that following the foreign leader is likely to increase parties' chances of electoral success, the grounds for postulating that parties use this heuristic are weak.

Kahneman and Frederick (2002) emphasize that relying on heuristics can lead to poor decision making, in part, because potentially relevant and available information is deliberately ignored. This can bring about biased and misleading conclusions. However, following the foreign leader will work reasonably well if the position of the median voter is similar across countries. ${ }^{3}$ Empirically, as outlined below, we focus on parties in 26 established European countries. As we show, here the variation in median voter positions is actually quite low, and there are several reasons why this is the case. First, countries may face similar economic circumstances due to the coordination of their business cycles and/or a common degree of exposure to globalization. Ideas diffuse between countries via trade links, media ties, or their interaction in international institutions. Exposure to similar policies may lead to the electorate developing similar views about policies' success or failure (see, e.g., Soroka and Wlezien 2010).

[^1]Broad ideological developments like neo-liberalism spread - in part because they are intimately connected with, and born by, policy packages and their associated advocacy coalitions. In turn, public opinion may, in effect, diffuse - although the main mechanism is unlikely to be direct contact between ordinary citizens.

Ultimately, if the median voter in country $C$ is close to that of the median in country $K$, parties in $C$ may learn from the policies of incumbents in $K$. Following the foreign leader increases the chances of parties in $C$ adopting policies close to their domestic median, because the foreign incumbent is likely to be near its own median, because the positions of the two medians are similar, and because proximity to the median voter usually increases the chances for electoral success. ${ }^{4}$

Thus far, we argued that parties follow foreign leaders to better approximate their own median voter - as median voter positions are expected to be similar across countries. It is necessary, however, to evaluate the heuristic of following foreign incumbents, compared to alternative heuristics, to see if it produces more reliable (statistical) inferences for a focal political party about the location of its own median voter position. A formal model is presented in the Supplementary Materials that justifies this assumption. Specifically, we demonstrate that it is better to weigh information about incumbents more heavily not only because they are more

[^2]successful per se, but since their positions are known with greater precision. Specifically, using the maximum likelihood estimate of the domestic median given available information about foreign parties' vote shares implies giving less weight to foreign parties for which the variance of the estimate of their position is higher. In principle, information about unsuccessful foreign parties would be equally valuable in seeking your own median if this were not the case. Also in light of the statistical model, we contend that the basis of the competitive advantage of the follow-the-foreign-leader heuristic is that it is likely to position parties nearer their own median than other possible heuristics such as weighing all foreign parties equally. In sum, the above discussion leads to the following hypothesis:

Follow the Foreign Leader Hypothesis: Political parties that respond to the left-right position of foreign incumbents will be more successful electorally.

## Research Design

## Data and Methodology

Our empirical analysis is based on time-series cross-section data comprising information on 215 parties in 26 established European democracies between 1977 and 2010. The Appendix lists the parties and countries in our sample. ${ }^{5}$ In the original data from Böhmelt et al. (2016), the unit of analysis is the party-year.

[^3]Our substantive interest lies in explaining parties' electoral success in the light of learning and emulation from foreign incumbent parties and several alternative determinants of election outcomes. It seems plausible that parties first decide whether or not to emulate a foreign incumbent and then seek to change their party positions, i.e., to move closer to the median voter, in order to do well in the next election. Thus, there is a two-stage data generating process: first, there is the impact of a party learning from and emulating a foreign leader on its own policy position and, in turn, distance to the median; second, conditional on learning from and emulating foreign incumbents, the distance to the median voter affects how well a party does in the next election. Based on such a two-stage process, we model the way in which learning from and emulating foreign incumbents influences the outcome of electoral campaigns indirectly, operating through its impact on parties' policy positions and their distance to the median voter.

Modeling this two-stage process is not without difficulty, since our setup does not have a binary treatment variable that divides the sample into parties that learn from and emulate foreign parties and those that do not. We address this issue by modeling the effect of party policy diffusion indirectly. That is, our theory suggests that foreign incumbents' policy positions
and the Greens). The parties in the remaining categories coded by the main data source described below (e.g., regional, agrarian, and other small specialized parties) are omitted as they only exist in a few country-years and even then rather sporadically. Moreover, our assumption of parties being office-seeking is unlikely to apply to these parties. Although we focus on party manifestoes at the national level, future research may focus on diffusion patterns between regional or local election contests.
indirectly affect a focal party's degree of electoral success via their influence over that focal party's distance to the median. Hence, we basically treat learning from and emulating foreign incumbent parties' policy positions as an instrumental variable to identify the effect of a focal party's policy position - and specifically, its distance from the median voter - on electoral success, i.e., vote share. The two-stage process is econometrically equivalent to an instrumentalvariable approach and is modeled so that we are able to make substantive statements about how increasing the policy distance between a party and the median voter affects that party's electoral success (in stage 2), conditional on whether a party learns from and emulates foreign incumbents (as estimated in stage 1). More formally, we define the first stage of our model as follows:

Abs. Distance to Median ${ }_{t}=\beta_{0}+\beta_{1}\left[\right.$ Abs. ${\left.\text { Distance to } \text { Median }_{t-1}\right]+}_{+}$ $\beta_{2}\left[\right.$ Abs. Dist. to Foreign Incumbents' Avg. Policy Position $\left.{ }_{t}\right]+$ $\beta_{3}[$ Party and Year Fixed Effects] +

$\varepsilon$.
where Abs. Distance to Median $_{t}$ is our dependent variable in the first stage, i.e., the absolute distance between the focal party's policy position and the domestic median. For the covariates, we include a one-year temporally lagged dependent variable, party and year fixed effects, as well as a variable that captures a focal party's absolute distance to the average value of all foreign incumbents' policy positions. This spatial variable addresses the influence of foreign incumbents and, in essence, constitutes our instrument. Note that we consider all foreign incumbents' positions as we contend that all foreign incumbent positions potentially tell us something about the median voter position, not just the positions of parties in the same family. We discuss all
variables' operationalizations and their data sources below. After this first stage, the predicted values for Abs. Distance to Median ${ }_{t}$ are calculated and used in the second stage of this modeling approach as a predictor to model electoral success, where the latter is defined as a party's vote share in an election. The predicted values from the first stage, stored in the variable Instrumented Abs. Distance to Mediant, comprise the information from the first stage as we directly take into account the endogeneity stemming from the indirect effect of learning from and emulating foreign incumbents.

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Vote Share \(_{t}=\beta_{0}+\beta_{1}\left[\right.\) Vote Share \(\left._{e-1}\right]+\)
    \(\beta_{2}\left[\right.\) Instrumented Abs. Distance to Median \(\left._{t}\right]+\)
    \(\beta_{3}\left[\right.\) Incumbent Experience \(_{t}\) ] +
    \(\beta_{4}\) [ncumbent \(\left.{ }_{t-1}\right]+\)
    \(\beta_{5}[\) GDP Growth \(]+\)
    \(\beta_{6}\left[\right.\) Incumbent \(_{t-1} *\) GDP Growth \(\left.{ }_{t}\right]+\)
    \(\beta_{7}\left[\right.\) Unemployment \(\left._{t}\right]+\)
    \(\beta_{8}\left[\right.\) Incumbent \(_{t-1} *\) Unemployment \(\left._{t}\right]+\)
    \(\beta_{9}[\) Party and Year Fixed Effects] +
    \(\varepsilon\).
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Both equations then form a two-stage model estimation, which takes into account that the absolute distance to the median voter is endogenous, i.e., that parties' positions are influenced by foreign incumbent positions. If this spatial autocorrelation is ignored, we would be liable to obtain biased estimates of the effect of distance to the median voter on vote share. And we model
this path through Dist. to Foreign Incumbents' Avg. Policy Position from the first stage. Such an approach, as it mirrors an instrumental-variable estimation, is bound to a set of requirements, i.e., that Dist. to Foreign Incumbents' Avg. Policy Position $n_{t}$ is a significant predictor in the first stage of the estimation procedure (also when controlling for other covariates), that Abs. Distance to Median $_{t}$ is indeed endogenous, and we must test for overidentifying restrictions. In the results section, we show that our approach meets all relevant criteria, underlining that Abs. Dist. to Foreign Incumbents' Avg. Policy Position ${ }_{t}$ is a reasonable source of exogenous variation.

The two stages differ in the unit of analysis as we rely on the party-year in the first stage, but the unit of analysis in the second stage is an election-party-year. While learning from and emulating foreign incumbents can occur in non-election years, the electoral success of a party is only observed when there actually is an election. ${ }^{6}$ Hence, we exclude non-election years for the

[^4]second stage, although the predicted values of Abs. Distance to Median ${ }_{t}$ are based on a model and a sample that consider the years between elections. Since party-policy positions for interelection periods are missing in the sample pertaining to equation 1 , they are interpolated. ${ }^{7}$ Moreover, we include year and party fixed effects as well as a one-year temporally lagged dependent variable in that first equation to address several concerns: in order to ensure that we do in fact capture a genuine diffusion process, any unit-level effects that may shape parties' policy positions (e.g., unobservable characteristics of parties such as competence), common shocks affecting all parties in the system, and idiosyncratic path dependencies must be controlled for, and these items address this as thoroughly as possible (Franzese and Hays 2007, 2008). Also, parties' strategies could differ according to their institutional contexts, and party fixed effects control for this.
each other across borders, we must take the cross-year distribution of elections into account and, hence, must then not concentrate on election-years only in the first stage. Instead, the party-year is the suitable unit of analysis, which allows us to estimate that parties in one election-year are influenced by parties in other countries where elections took place (and the parties' positions were observed) one, two, or more years earlier. Having said that, we also present results from a model that jointly estimates the two stages using the same unit of analysis.
${ }^{7}$ For example, if a political party changes its left-right position from 3 to 4 between elections that occur in 1997 and 2001, the yearly estimates for this party would be the following: 1997: 3; 1998: 3; 1999: 3; 2000: 3; 2001: 4.

Finally, and as explained below, the second stage (equation 2) builds on standard models of electoral success (e.g., Laver 2005; Adams and Somer-Topcu 2009; Adams 2012; Bawn and Somer-Topcu 2012; Somer-Topcu 2015; Williams and Whitten 2015), while including a lagged dependent variable (capturing vote share in the last election), party and year fixed effects, and our main explanatory variable, Instrumented Abs. Distance to Mediant.

## Variables and Data Sources - First Stage

The dependent variable in the first stage captures the absolute distance of party positions to the domestic median voter. Party positions are measured in terms of "left" and "right," and we use the Comparative Manifestos Project (CMP) data (Budge et al. 2001; Klingemann et al. 2006; Volkens et al. 2013). These data are consistent with those from other studies and their quality have been discussed at length there (Hearl 2001; McDonald and Mendes 2001; Laver, Benoit, and Garry 2003; see also Marks et al. 2007). The additive measure of left-right ideological scores reported in the CMP ranges from -100 (extreme left) to +100 (extreme right), and we recalibrated it to make it consistent with the 1-10 median voter scale. Finally, annual data on median voter preferences come from the Eurobarometer's (Schmitt and Scholtz 2005) survey item that asks respondents to place themselves on a left-right scale from 1 (left) to 10 (right).

Coming to the explanatory variables in equation 1, we opted for a comprehensive, yet parsimonious approach in that we merely include party and year fixed effects, a one-year temporally lagged dependent variable, and the variable, Abs. Dist. to Foreign Incumbents' Avg. Policy Positiont. As a robustness check, we re-estimated the model while including all
substantive predictors from the second stage as well (discussed below), and the results remain unchanged. Abs. Dist. to Foreign Incumbents' Avg. Policy Position $_{t}$ is essentially a spatial lag pertaining to a party's distance all foreign incumbents' policy positions. We use the position of foreign, i.e., non-domestic incumbents (part of the government or the governing coalition). The data on incumbency status come from Döring and Manow (2012), while the party position data stem from the CMP (Budge et al. 2001; Klingemann et al. 2006; Volkens et al. 2013).

## Variables and Data Sources - Second Stage

The unit of analysis in the second stage is the election-party-year. For the dependent variables in that equation and, hence, our outcomes of interest, we focus on vote share that we capture with the data from the CMP (Budge et al. 2001; Klingemann et al. 2006; Volkens et al. 2013). After including the lagged dependent variable and accounting for missing values on our covariates, we have information on 317 election-party-years, while the vote-share item ranges between 0 and 51.287 (mean=15.67; standard deviation=13.27). Similar to the first stage, we also include in the model year fixed effects that control for temporal shocks (e.g., economic crisis) in election years and party fixed effects to control for any time-invariant influences. For example, these party-fixed effects control for parties' levels of professionalization thus accounting for parties that use more simplistic cues versus those that have more resources available to process information at the domestic level.

The second stage's substantive explanatory variables are based on earlier studies modeling electoral outcomes (e.g., Laver 2005; Adams and Somer-Topcu 2009; Adams 2012;

Bawn and Somer-Topcu 2012; Somer-Topcu 2015; Williams and Whitten 2015). First, we include a variable capturing the governing experience of a focal party since the year of its party foundation, with constant values for non-incumbency years. That is, imagine a party is formed in year 1 and is part of the government in years $2,3,4,9$, and 10 - but not in $1,5,6,7$, and 8 . Our variable then simply counts the years in government since party formation, but the count remains constant at the last year of government participation for those periods in which the party is in opposition. Hence, we would get the following variable values for the simple example above: 0 , $1,2,3,3,3,3,3,4$, and 5 . This item is constructed in such a way that it does not omit what happened before a specific term. Again, we use the data on incumbency status from Döring and Manow (2012) to create this variable. Relying on the same data, we also coded a binary variable that captures whether a party was in government in the year before an election under study (1) or not (0). Hence, while the first variable measures governmental experience, the second one controls for the mechanisms that incumbents may find it generally easier to win elections. Third, taking data from the World Bank Development Indicators, we include two variables on the economic condition of a country. First, there is economic growth. We compiled the World Bank's GDP data, which captures the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. Data are in constant 2000 billion US Dollars. In turn, we subtracted this variable's lagged values from its current ones to obtain the growth measure. Second, also based on the World Bank, we consider total unemployment as percent of the total labor force. As described by the World Bank, this item is an indicator of economic activity as reflected by the
labor market, and it defines unemployed as the members of the economically active population who are without work but available for and seeking work, including people who have lost their jobs or who have voluntarily left work. Generally, the more favorable the economy, the better is the election outcome for the incumbent. Hence, we also include a multiplicative specification of the two economic variables and the incumbency variable.

Finally, our core variable of interest in the second stage (equation 2) is Instrumented Abs.
 the indirect effect of learning from and emulating foreign incumbents. Higher values of the absolute-distance variable signify greater distances between a party and the median voter and, therefore, we expect a negative impact of this item on the dependent variable.

## Empirical Results

We begin the empirical analysis with an assessment of whether the political center ground, i.e., the median voter position, is similar across the group of countries in our sample. As emphasized, we focus on a set of established democratic states within a European context, which makes it plausible that this condition is indeed met. Still, for a more systematic assessment, we discuss Figure 1, which plots the average value of each country's median voter position (along with 95 percent confidence intervals) for our observation period of 1977-2010. While differences across countries exist, they are rather small as the aggregated median voter position has a minimum of 4.091 and a maximum of 6.308 . This provides evidence for the validity of the
central assumption of our theory that the median voter position is similar across our sample states.

Table 1 summarizes our findings for the first stage. For our setup, it would be important that Abs. Dist. to Foreign Incumbents' Avg. Policy Position is a strong predictor of a party's distance to the median, and that the model as a whole predicts the outcome reasonably well. In fact, we obtain a positive and significant effect of Abs. Dist. to Foreign Incumbents' Avg. Policy Position $_{t}$, which demonstrates that if a party approaches the average foreign incumbent position it will be positioned closer to the median at home. Hence, also in light of Böhmelt et al. (2016), parties learn from and emulate foreign incumbents' electoral strategies and incorporate them in their own party manifestos. The confidence in this conclusion is enhanced as we rule out the possibility of common exposure, i.e., spatial clustering that is not driven by interdependence between party positions and a genuine diffusion process. As concluded by Buhaug and Gleditsch (2008: 216), this would constitute a "reverse Galton's problem," i.e., "we would face a reverse Galton's problem if we try to evaluate evidence for spatial contagion without first considering relevant unit attributes that may be both spatially clustered and potentially related" - in our case parties' distances to the median voter. We control for such relevant alternative influences, i.e. "exogenous-external conditions or common shocks and spatially correlated unit level factors" (Franzese and Hays 2007: 142) by including a temporally lagged dependent variable, party-fixed effects, and year-fixed effects.

Figure 1. Median Voter Positions, 1977-2010


Notes. The data used for this graph are based on the Eurobarometer data described in the research design. Median voter positions for each country (point estimates) are averaged across all years between 1977 and 2010. Horizontal black lines pertain to 95 percent confidence intervals.

In substantive terms, the coefficient points to a short-term effect of 0.657 . The asymptotic long-term effect is 0.972 (which is calculated when taking the temporally lagged dependent variable into account). These estimates, 0.657 and 0.972 , are statistically significant. In our data, the mean distance of a party to the average foreign incumbent is 0.773 in the first stage's sample. If this distance would then decrease by 0.10 , the effect on a focal party would be a decrease of the distance to the median voter of 0.066 in the short-term and 0.097 in the long-term.

Table 1. Follow the Foreign Leader - Foreign Emulation Model

|  | Model 1 |
| :--- | :---: |
| Constant | 0.060 |
|  | $(0.025)^{* *}$ |
| Abs. Distance to Median |  |
|  | 0.325 |
| Abs. Dist. to Foreign Incumbents' Avg. Policy Position | $(0.014)^{* * *}$ |
|  | 0.657 |
| Observations | $(0.014)^{* * *}$ |
| F-Test | 2,275 |
| $\mathrm{R}^{2}$ | $201.27^{* * *}$ |

Notes. Table entries are coefficients; standard errors in parentheses; year and party-fixed effects included, but omitted from presentation.

* $\mathrm{p}<0.10$; ** $\mathrm{p}<0.05$; *** $\mathrm{p}<0.01$

The second table summarizes our results for equation 2 that estimates parties' vote shares as the dependent variable. The parameter estimates in Table 2 supports the argument that foreign incumbents indirectly affect focal parties' electoral outcomes. The item Instrumented Abs. Distance to Mediant, i.e., the variable that is based on the predicted values of parties' policy distance to the median voter from the first stage using Abs. Dist. to Foreign Incumbents' Avg.

Distance to Median $n_{t}$ by one unit leads to a decrease in a party's vote share by 1.319 percentage points. Thus, taking the influence of foreign incumbents systematically into account helps to explain electoral success and the two-stage estimation procedure provides evidence for the indirect effect that is theorized.

Table 2. Follow the Foreign Leader - Vote Share Model

|  | Model 2 |
| :---: | :---: |
| Constant | $\begin{aligned} & \hline 17.906 \\ & (4.823)^{* * *} \end{aligned}$ |
| Vote Share $_{\text {t-1 }}$ | $\begin{aligned} & 0.560 \\ & (0.067)^{* * *} \end{aligned}$ |
| Incumbent Experience ${ }_{\text {}}$ | $\begin{aligned} & -0.267 \\ & (0.123)^{* *} \end{aligned}$ |
| Incumbent $_{\text {t-1 }}$ | $\begin{aligned} & -3.365 \\ & (1.810)^{*} \end{aligned}$ |
| GDP Growth ${ }_{\text {t }}$ | $\begin{aligned} & -0.001 \\ & (0.008) \end{aligned}$ |
| Incumbent ${ }_{\text {-1 }}$ * GDP Growth ${ }_{\text {t }}$ | $\begin{aligned} & 0.022 \\ & (0.008)^{* * *} \end{aligned}$ |
| Unemployment ${ }_{\text {t }}$ | $\begin{aligned} & -0.468 \\ & (0.372) \end{aligned}$ |
| Incumbent ${ }_{\text {-1 }}$ * Unemployment ${ }_{\text {t }}$ | $\begin{aligned} & 0.295 \\ & (0.212) \end{aligned}$ |
| Instrumented Abs. Distance to Median ${ }_{\text {t }}$ | $\begin{aligned} & -1.319 \\ & (0.761)^{*} \end{aligned}$ |
| Observations | 317 |
| F-Test | 4.24*** |
| $\mathrm{R}^{2}$ | 0.535 |

Notes. Table entries are coefficients; standard errors in parentheses; year and party-fixed effects included, but omitted from presentation.

* $\mathrm{p}<0.10$; ** $\mathrm{p}<0.05$; *** $\mathrm{p}<0.01$

To provide a more intuitive interpretation, Figure 2 further depicts predicted values of Vote Share for values of Instrumented Abs. Distance to Mediant, while holding all other covariates constant at their means. ${ }^{8}$ The magnitude of the effect of Instrumented Abs. Distance to Median $_{t}$ is both substantively and statistically significant. When taking the results from the first stage into account, we can estimate the indirect effect of learning from and emulating foreign incumbents. That is, the coefficient estimate of Dist. to Foreign Incumbents' Avg. Policy Position $_{t}$ in the first stage is 0.657 , and the estimate of Instrumented Abs. Distance to Median ${ }_{t}$ is -1.319 in the second stage. Combining these estimates, we conclude that when a focal party is one unit closer to the average policy position of its foreign incumbents, the vote share of the party is expected to increase by 0.867 percentage points in the next election.

We also assessed whether the two-stage estimation approach is valid and performed a series of tests to this end. First, Model 3 jointly estimates the two stages we estimated separately before in Table 1 and Table 2, respectively. For this joint estimation, we use the party-electionyear as the unit of analysis across both stages. The results as summarized in Table 3 are virtually identical to the findings from Table 2. In addition, we have to demonstrate that our Abs. Dist. to Foreign Incumbents' Avg. Policy Position $_{t}$ is a significant predictor for explaining a party's distance to the median voter. Table 1 summarizes our findings when merely considering the

[^5]lagged dependent variable and the year and country fixed effects as other covariates. However, we also estimated a model that includes all predictors of Abs. Distance to Median ${ }_{t}$ and Vote Share from the second stage. Model 4 (Table 3) estimates the effects of a model that includes the identical variables from the paired down model specification presented in equation 1 , but it also includes a number of additional covariates that could potentially influence party position (and thus Abs. Distance to Mediant).

Figure 2. Predicted Values of Vote Share


Notes. Graph based on Model 2; dashed lines pertain to 90 percent confidence intervals; point estimates calculated while holding all other variables at their means; rug plot along horizontal axis summarizes distribution of Abs. Distance to Mediant.

While the parameters of Model 4 are estimated as a robustness check, it is also worth pointing out additional noteworthy findings from this model. Kayser (2009; see also 2007) argues that partisan waves, or cross-national diffusion of support for left and right parties, may not be a product of domestic politics - but instead of a diffusion of business cycles. Voters and parties may be influenced by changes in unemployment or growth rates. For example, growth may reduce support for left-wing governments (Kayser 2009). We address the possibility of business cycles driving our findings in a number of ways. First, in the model specification for equation 1, we include a temporally lagged dependent variable, party-fixed effects, and yearfixed effects (as discussed previously). And, second, in Model 4, we now actually model the influence of unemployment and growth directly on Abs. Distance to Mediant, and our conclusions with respect to the Dist. to Foreign Incumbents' Avg. Policy Position $n_{t}$ variable remain unchanged. Focusing on the estimates on unemployment and growth, we do find some evidence of business cycles influencing party position. ${ }^{9}$ Model 5 summarizes the corresponding second stage, when including the other covariates in the first stage (Model 4), and the results are virtually identical to Models 2-3.

[^6]
## Table 3. Model Checks I

|  | Model 3 <br> Vote <br> Share | Model 4 Distance to Median Voter | Model 5 Vote Share |
| :---: | :---: | :---: | :---: |
| Constant | $\begin{aligned} & \hline 10.806 \\ & (4.222) \end{aligned}$ | $\begin{aligned} & \hline-0.022 \\ & (0.057) \end{aligned}$ | $\begin{aligned} & \hline 17.774 \\ & (4.813)^{* * *} \end{aligned}$ |
| Abs. Distance to Mediant ${ }_{\text {t-1 }}$ |  | $\begin{aligned} & 0.295 \\ & (0.014)^{* * *} \end{aligned}$ |  |
| Vote Share $_{\text {t-1 }}$ | $\begin{aligned} & 0.563 \\ & (0.046)^{* * *} \end{aligned}$ |  | $\begin{aligned} & 0.560 \\ & (0.067)^{* * *} \end{aligned}$ |
| Incumbent Experience ${ }_{t}$ | $\begin{aligned} & -0.245 \\ & (0.084)^{* * *} \end{aligned}$ | $\begin{aligned} & 0.011 \\ & (0.002)^{* * *} \end{aligned}$ | $\begin{aligned} & -0.252 \\ & (0.122)^{* *} \end{aligned}$ |
| Incumbent $_{\text {t-1 }}$ | $\begin{aligned} & -3.343 \\ & (1.248)^{* * *} \end{aligned}$ | $\begin{aligned} & -0.121 \\ & (0.035)^{* * *} \end{aligned}$ | $\begin{aligned} & -3.512 \\ & (1.821)^{*} \end{aligned}$ |
| GDP Growth ${ }_{\text {t }}$ | $\begin{gathered} 0.001 \\ (0.005) \end{gathered}$ | $\begin{gathered} 0.000 \\ (0.000) \end{gathered}$ | $\begin{aligned} & -0.001 \\ & (0.008) \end{aligned}$ |
| Incumbent ${ }_{\text {-1 }}$ * GDP Growth ${ }_{\text {t }}$ | $\begin{aligned} & 0.022 \\ & (0.005)^{* * *} \end{aligned}$ | $\begin{aligned} & 0.000 \\ & (0.000) \end{aligned}$ | $\begin{aligned} & 0.023 \\ & (0.008)^{* * *} \end{aligned}$ |
| Unemployment ${ }_{\text {t }}$ | $\begin{aligned} & -0.499 \\ & (0.256)^{*} \end{aligned}$ | $\begin{aligned} & -0.011 \\ & (0.003)^{* * *} \end{aligned}$ | $\begin{aligned} & -0.482 \\ & (0.372) \end{aligned}$ |
| Incumbent ${ }_{\text {t-1 }}$ * Unemployment ${ }_{\text {t }}$ | $\begin{aligned} & 0.290 \\ & (0.146)^{* *} \end{aligned}$ | $\begin{aligned} & 0.010 \\ & (0.004)^{* *} \end{aligned}$ | $\begin{aligned} & 0.307 \\ & (0.213) \end{aligned}$ |
| Dist. to Foreign Incumbents' Avg. Policy Position ${ }_{\text {t }}$ |  | $\begin{aligned} & 0.679 \\ & (0.015)^{* * *} \end{aligned}$ |  |
| Instrumented Abs. Distance to Median ${ }_{t}$ | $\begin{aligned} & -0.989 \\ & (0.489)^{* *} \end{aligned}$ |  | $\begin{aligned} & -1.306 \\ & (0.762)^{*} \end{aligned}$ |
| Observations | 317 | 2,045 | 317 |
| $\chi^{2} /$ F-Test | 8,027.30*** | 160.98*** | 4.23*** |
| $\mathrm{R}^{2}$ | 0.9620 | 0.715 | 0.536 |

Notes. Table entries are coefficients; standard errors in parentheses; party-fixed effects (Model 3) and year-fixed effects (Models 3-5) included, but omitted from presentation.

* $\mathrm{p}<0.10$; ** $\mathrm{p}<0.05$; *** $\mathrm{p}<0.01$

Second, we must test for the endogeneity of a party's distance to the median. We thus first calculated the residuals of Model 1, and added these to a reduced-form model of vote share, i.e., we only consider the lagged vote share, the (non-instrumented) median-distance variable,
and the residuals. If the coefficient on the residuals is statistically different from 0 , we conclude that a party's distance to the median is indeed endogenous. Model 6 summarizes our findings here and emphasizes that this is indeed the case: the residuals are statistically significant at the 1 percent level. Finally, to test for overidentifying restrictions, we examine whether Dist. to Foreign Incumbents' Avg. Policy Position ${ }_{t}$ is correlated with the second-stage residuals. Hence, we estimated a regression using the residuals from Model 2 as the dependent variable and Dist. to Foreign Incumbents' Avg. Policy Position ${ }_{t}$ as the only explanatory variable. As Model 7
(Table 4) shows, Dist. to Foreign Incumbents' Avg. Policy Positiont is statistically insignificant, which is further supported by a $\chi^{2}$ test $\left(\chi^{2}=1.923 ; \mathrm{p}>\chi^{2}=0.382\right)$.

Table 4. Model Checks II

|  | Model 6 <br> Vote <br> Share | Model 7 <br> Stage II <br> Residuals |
| :--- | :---: | :---: |
| Constant | 3.450 | 0.086 |
| Vote Sharet-1 | $(0.247)^{* * *}$ | $(0.338)$ |
| Abs. Distance to Median | 0.782 |  |
|  | $(0.013)^{* * * *}$ |  |
| Residuals | 0.045 |  |
|  | $(0.135)$ |  |
| Dist. to Foreign Incumbents' Avg. Policy Position | -0.723 |  |
| Observations | $(0.277)^{* * *}$ |  |
| F-Test |  | -0.363 |
| $\mathrm{R}^{2}$ |  | $(0.358)$ |

Notes. Table entries are coefficients; standard errors in parentheses; country-fixed effects included in Model 5, but omitted from presentation.

* $\mathrm{p}<0.10$; ** $\mathrm{p}<0.05 ;$ *** $\mathrm{p}<0.01$

In terms of the control variables in our main, second-stage estimation (Table 2 and Model 3 in Table 3), some of them are statistically significant at conventional levels. For instance, our model finds strong support that parties that ruled in the year before tend to be more successful in the next election in times when GDP grows. In times of economic crisis, when GDP growth is low, incumbents are punished and, all else equal, perform worse in an election. The same applies to more "experienced" parties, while unemployment is associated with an insignificant coefficient (with or without the interaction).

Table 5. Follow the Foreign Leader - Foreign Emulation Model

|  | Model 8 |
| :---: | :---: |
| Constant | $\begin{gathered} 0.041 \\ (0.025)^{*} \end{gathered}$ |
| Abs. Distance to Mediant-1 | $\begin{aligned} & 0.321 \\ & (0.013)^{* * *} \end{aligned}$ |
| Abs. Dist. to Foreign Incumbents' Avg. Policy Position ${ }_{\text {t }}$ | $\begin{aligned} & 0.604 \\ & (0.017)^{* * *} \end{aligned}$ |
| Abs. Dist. to Domestic Parties' Avg. Policy Position ${ }_{t}$ | $\begin{aligned} & 0.106 \\ & (0.017)^{* * *} \end{aligned}$ |
| Observations | 2,275 |
| F-Test | 199.91*** |
| $\mathrm{R}^{2}$ | 0.774 |

Notes. Table entries are coefficients; standard errors in parentheses; year and party-fixed effects included, but omitted from presentation.

* $\mathrm{p}<0.10$; ** $\mathrm{p}<0.05$; *** $\mathrm{p}<0.01$

Table 6. Follow the Foreign Leader - Vote Share Model

|  | Model 9 |
| :---: | :---: |
| Constant | $\begin{aligned} & 17.920 \\ & (4.819)^{* * *} \end{aligned}$ |
| Vote Sharet-1 | $\begin{aligned} & 0.560 \\ & (0.067)^{* * *} \end{aligned}$ |
| Incumbent Experience ${ }_{\text {t }}$ | $\begin{aligned} & -0.264 \\ & (0.122)^{* *} \end{aligned}$ |
| Incumbent $_{\text {t-1 }}$ | $\begin{aligned} & -3.349 \\ & (1.808)^{*} \end{aligned}$ |
| GDP Growth ${ }_{\text {t }}$ | $\begin{aligned} & -0.001 \\ & (0.008) \end{aligned}$ |
| Incumbent $_{\text {t-1 }}$ * GDP Growth ${ }_{\text {t }}$ | $\begin{aligned} & 0.022 \\ & (0.008)^{* * *} \end{aligned}$ |
| Unemployment ${ }_{\text {t }}$ | $\begin{aligned} & -0.469 \\ & (0.372) \end{aligned}$ |
| Incumbent $_{\text {t-1 }}$ * Unemployment ${ }_{\text {t }}$ | $\begin{aligned} & 0.292 \\ & (0.212) \end{aligned}$ |
| Instrumented Abs. Distance to Median ${ }_{t}$ | $\begin{aligned} & -1.344 \\ & (0.759)^{*} \end{aligned}$ |
| Observations | 317 |
| F-Test | 4.25*** |
| $\mathrm{R}^{2}$ | 0.539 |

Notes. Table entries are coefficients; standard errors in parentheses; year and party-fixed effects included, but omitted from presentation.

* $\mathrm{p}<0.10$; ** $\mathrm{p}<0.05$; *** $\mathrm{p}<0.01$

We also conducted a series of additional robustness checks. ${ }^{10}$ First, we controlled for the effective number of parliamentary parties based on seats (see Laakso and Taagepera 1979). The data for this variable are reported in the Comparative Political Data Set (Armingeon et al. 2016), and we would expect that more (less) parties in the political system will reduce (increase)

[^7]parties' vote shares. Second, we also sought to model whether parties respond to their domestic rival parties (Adams and Somer-Topcu 2009). Similar to Williams (2015; see also Williams and Whitten 2015), we constructed variables on rival parties' policy positions, based on all rival parties, and based on whether the rival parties are part of the same ideological family/bloc as defined in Adams and Somer-Topcu (2009). The substantive findings remain unchanged when these additional control variables are included in the model specification for the second stage.

Finally, we do not claim that political parties exclusively learn about domestic politics in their home countries by studying foreign politics in other countries. Adams (2001), Adams and Merrill (2009), Adams and Somer-Topcu (2009), and Williams (2015) demonstrate that policyseeking parties respond to other parties that compete with them in national elections. To control for parties learning for domestic competitors, we considered for the first stage of our model the distance of the focal party to the domestic average. Specifically, and similar to Abs. Dist. to Foreign Incumbents' Avg. Policy Position ${ }_{t}$, we created a spatial lag capturing a party's distance all rival parties in their country, which is captured by the average party policy position. The data on party position data stem are collected from the Comparative Manifesto Project (Budge et al. 2001; Klingemann et al. 2006; Volkens et al. 2013). While including this variable next to Abs. Dist. to Foreign Incumbents' Avg. Policy Position $n_{t}$ in our first stage, we can identify the relative importance of foreign context compared to a party's own past experience from the "home environment." Tables 5 and 6 summarize our findings. Abs. Dist. to Domestic Parties' Avg. Policy Position $_{t}$ exerts a positive and statistically significant in the first stage, as expected. While the effect of Abs. Dist. to Foreign Incumbents' Avg. Policy Position $_{t}$ decreases slightly (also, as
expected), the overall substance of our findings remains unaltered: while parties do learn from and emulate domestic parties to be more successful themselves, they also pay attention to what happens abroad. And by incorporating this into their own electoral strategies, they will perform more effectively in elections. By comparing the results in Table 6 (domestic party variable in the first stage) with those in Tables 2-3 (no domestic party variable in the first stage), we conclude that this effect is genuine and does not disappear when controlling for learning from and emulating domestic rival parties.

## Conclusion

Our study extends earlier research on party competition and policy diffusion. The arguments and empirical analyses support the Follow the Foreign Leader Hypothesis that political parties will be more electorally successful when they respond to the left-right positions of political parties which are governing coalition members in foreign countries.

There are several interesting questions to explore in future research. These will identify conditions under which following foreign leaders is a stronger or weaker electoral strategy. For example, electoral systems are thought to produce similar electoral incentives for political parties (see, e.g., Cox 1990; Dow 2001, 2011). Accordingly, following the foreign leader could arguably be a more effective strategy for parties that compete under similar electoral arrangements. Taking over party policy positions in order to be electorally more effective may also be more or less successful along more narrowly defined issue dimensions than the left-right, such as immigration, the environment, or European integration.

Furthermore, Schumacher et al. (2013) suggest that party leaders are more constrained by their internal hierarchy (see also Lehrer 2012), which could affect the pace at which emulation occurs. This might suggest that hierarchical parties would be more active in engaging in these party policy diffusion processes, because leaders can more readily take successful party strategies on board. On the other hand, internally more democratic and less hierarchical parties may also develop new channels for emulation through their supporters (Ceron 2012; Lehrer et al. 2017). Depending on which intraparty mechanism is at work, internal hierarchies or supporter influence, there could be important consequences for the rate at which party policy diffusion occurs.

Our theoretical arguments and empirical support for the Follow the Foreign Leader Hypothesis are relevant to parties' election strategies (e.g., Alvarez et al. 2000), because they imply that parties learning from and emulating the policies of parties in other states can benefit in their elections at home. Our findings are also relevant for scholars of policy diffusion (e.g., Elkins and Simmons 2005; Gilardi 2010, 2012). According to several prominent studies of political representation, the average party position in a country election year will influence public policy outputs (Kang and Powell 2012; see also McDonald and Budge 2005; Budge et al. 2012). This latter finding that parties' positions feed through to public policy - combined with our central conclusion that parties respond to the policies of governing parties in other countries to compete in their own elections - suggests that policy diffusion occurs, at least in part, through political parties. Party policy diffusion is thus particularly applicable to the extensive literature on the diffusion of public policy outputs (e.g., Elkins and Simmons 2005; Dobbin, Simmons, and

Garrett 2007). We conclude that following foreign leaders abroad helps parties compete in elections at home.

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# Follow the Foreign Leader? <br> Why Copying Foreign Incumbents is an Effective Electoral Strategy <br> <br> Supplementary Materials 

 <br> <br> Supplementary Materials}

## S1. Eliminating Competing Heuristics

In the theoretical section of the manuscript we argue that parties follow foreign leaders to better approximate their own median voter as median voter positions are similar across countries. This theory assumes that the heuristic of following foreign incumbents, compared to alternative heuristics, produces more reliable (statistical) inferences for a focal political party about the location of its own median voter position. Specifically, we demonstrate that it is better to weigh information about incumbents more heavily not only because they are more successful per se, but since their positions are known with greater precision. In principle, information about unsuccessful foreign parties would be equally valuable in seeking your own median if this were not the case. Assuming that parties are likely to estimate the positions of foreign leaders with less measurement error, it pays to weigh information about foreign incumbents more heavily when estimating the position of your median.

First, imagine focal party $i$ seeks to make best use of information it has about foreign parties in order to derive statistical inferences about the position of its own median. Party $i$ has "hard data" on foreign party $j$ 's vote share and incumbency status. It also can estimate $j$ 's leftright position - although the measurement is not exact this time, because it is a question of
making judgements from what you know of the party program using background knowledge. ${ }^{11}$ If party $i$ is willing to assume a function mapping the difference between $j$ 's position and its country $K$ 's median into its vote share, it can make an inference about where $K$ 's median is. First, $i$ inverts the vote function to capture the distance to the median from party $j$ 's vote share. ${ }^{12}$ It is reasonable to assume that $i$ would know whether $j$ was to the left or to the right of the median as this is how parties are characterized both by laymen and experts. If $j$ is a party to the left, an estimate of the position of the median in $K$ is party $j$ 's estimated position plus the inferred distance to that median position; if it is a party of the right, the estimate is $j$ 's inferred position minus the distance to the median. Now $i$ has in hand an estimate of the median voter position in country $K$. To calculate the position of its own median voter in country $C$, it has to allow for any systematic difference between the politics of the two countries and the general positions their voters take. Suppose that $i$ could use historical and contextual knowledge to do this. Thus, in effect, party $i$ could derive a series of unbiased estimates of its own median position - one for each other party that it observes. The efficient way to use these observations is to take their weighted average, because this is the maximum-likelihood estimate allowing for random errors

[^8]in the observations. Observations are weighted downwards if they are of higher variance. We now write a formal version of this argument. The position of the median voter in country $I$ is denoted by $\mathrm{M}_{\mathrm{I}}$. Then, for any pair of countries $I, X$ :
\[

$$
\begin{equation*}
\mathrm{M}_{\mathrm{I}}=\mathrm{M}_{\mathrm{X}}+\Delta_{\mathrm{IX}}+\delta_{\mathrm{IX}} \tag{1}
\end{equation*}
$$

\]

where $\Delta_{\mathrm{IX}}$ is the systematic part of the difference in median positions between $M_{I}$ and $M_{X}$ and $\delta_{\mathrm{IX}} \sim \mathrm{N}\left(0, \sigma_{\mathrm{IX}}{ }^{2}\right)$ is the random component of this difference. Let the focal party be $i$ in country $C$. Party $i$ observes (n-1) other parties and, by assumption, $i$ knows that (1) for each other party $j$ in country $K$ its vote share, $\mathrm{v}_{\mathrm{jk}}$, as well as (2) party $j$ 's left/right position subject to some degree of random measurement error. Specifically,

$$
\begin{equation*}
\hat{\mathrm{p}}_{\mathrm{jK}}=\mathrm{p}_{\mathrm{jK}}+\varepsilon_{\mathrm{jK}} \tag{2}
\end{equation*}
$$

where $\mathrm{p}_{\mathrm{jK}}$ is party $j$ 's position, $\hat{\mathrm{p}}_{\mathrm{jK}}$ is $i$ 's estimate of $j$ 's position and $\varepsilon_{\mathrm{jK}} \sim \mathrm{N}\left(0, \sigma_{\mathrm{ij} \varepsilon}{ }^{2}\right)$ is a random variable representing measurement error, which we assume to be uncorrelated with $\mathrm{p}_{\mathrm{jK}}$. Third, $i$ knows whether $j$ belongs to the left party family, in which case $\mathrm{p}_{\mathrm{jK}} \leq \mathrm{M}_{\mathrm{K}}$ and indicator variable $L_{j K}=1$, or whether $j$ is a member of the right party family block, in which case $p_{j K}>M_{K}$ and $L_{j K}$ $=-1$. Finally, (4) party $i$ knows the vote function mapping party positions relative to the country median into party vote totals, which is assumed to be a symmetric, linear function ${ }^{13}$ where

$$
\begin{equation*}
v_{j K}=\alpha-\beta\left(\left|M_{K}-p_{j K}\right|\right)=\alpha-\beta L_{j K}\left(M_{K}-p_{j K}\right) \tag{3}
\end{equation*}
$$

Rearranging the third equation leads to:

$$
\begin{equation*}
\mathrm{M}_{\mathrm{K}}=\left(\alpha+\beta \mathrm{L}_{\mathrm{jK}} \mathrm{p}_{\mathrm{jK}}-\mathrm{v}_{\mathrm{j} K}\right) / \beta \mathrm{L}_{\mathrm{jK}} \tag{4}
\end{equation*}
$$

[^9]Substituting for $\mathrm{p}_{\mathrm{jK}}$ in equation (4) from equation (2):

$$
\begin{equation*}
M_{K}=\left(\alpha+\beta L_{j K} \hat{p}_{j K}-v_{j K}\right) / \beta L_{j K}-\varepsilon_{j K} \tag{5}
\end{equation*}
$$

Substituting from equation (5) into (1), and denoting the observation party $i$ derives about $\mathrm{M}_{\mathrm{C}}$ from information on party $j$ in system K by $\mathrm{M}_{\mathrm{CjK}}$ :

$$
\begin{equation*}
\mathrm{M}_{\mathrm{CjK}}=\Delta_{\mathrm{CK}}+\left(\alpha+\beta \mathrm{L}_{\mathrm{jK}} \hat{\mathrm{p}}_{\mathrm{jK}}-\mathrm{v}_{\mathrm{jK}}\right) / \beta \mathrm{L}_{\mathrm{jK}}-\varepsilon_{\mathrm{jK}}+\delta_{\mathrm{CK}} \tag{6}
\end{equation*}
$$

Thus, focal party $i$ has ( $\mathrm{n}-1$ ) unbiased observations of $\mathrm{M}_{\mathrm{C}}$. For instance, for observation $j_{\mathrm{K}}$, we obtain:

$$
\begin{align*}
\mathrm{E}\left(\mathrm{M}_{\mathrm{CjK}}\right) & =\Delta_{\mathrm{CK}}+\left(\alpha+\beta \mathrm{L}_{\mathrm{jK}} \mathrm{E}\left(\hat{\mathrm{p}}_{\mathrm{jK}}\right)-\mathrm{v}_{\mathrm{jK}}\right) / \beta \mathrm{L}_{\mathrm{jK}}-\mathrm{E}\left(\varepsilon_{\mathrm{jK}}\right)+\mathrm{E}\left(\delta_{\mathrm{CK}}\right) \\
& =\Delta_{\mathrm{CK}}+\left(\alpha+\beta \mathrm{L}_{\mathrm{jK}} \mathrm{p}_{\mathrm{jK}}-\mathrm{v}_{\mathrm{jK}}\right) / \beta \mathrm{L}_{\mathrm{jK}} \\
& =\Delta_{\mathrm{CK}}+\mathrm{M}_{\mathrm{K}} \\
& =\mathrm{E}\left(\mathrm{M}_{\mathrm{C}}\right) \tag{7}
\end{align*}
$$

Note that the variances of these observations differ, however. Assuming that $\delta_{\mathrm{CK}}$ and $\varepsilon_{\mathrm{jK}}$ do not covary, the variance of observation $j_{\mathrm{K}}$ is $\sigma_{\mathrm{jK}}{ }^{2}+\sigma_{\mathrm{CK}} \delta^{2}$. By a standard result, the maximum likelihood estimate of $M_{C}$ is the weighted mean of these ( $n-1$ ) observations, where the weight on observation $j_{\mathrm{K}}$ is proportional to the inverse of the variance, i.e., $1 /\left(\sigma_{\mathrm{jK}}{ }^{2}+\sigma_{\mathrm{CK} \delta}{ }^{2}\right)$. Thus, party $i$ ought to give more weight to parties for which is it is liable to make smaller measurement errors in estimating their positions. It should also give more weight to other systems where there is smaller variance in the random component of the difference between the medians in its system and the other system(s).

There are two forms of randomness in the observations: measurement error about other parties' positions and randomness in the difference between median positions across countries.

The former is the key aspect for our purposes. Party $i$ should weigh what it knows from parties less heavily if its estimates of their positions are more prone to error. We submit that this would be the case for parties that are not foreign incumbents. More is likely to be known about parties that govern, from media coverage, from their record in office, and from programmatic statements made in coalition bargaining and in governing (Dahlberg 2013; Fortunato et al. 2016). ${ }^{14}$

Although this statistical inference procedure seems simple, we doubt if party leaders and officials actually carry it out in full. It is simply too demanding in terms of information needed about other parties and about the systematic component of differences between medians. An approximation to it, albeit a crude one, is to follow foreign incumbents, and political parties will modify their own party positions weighing evidence from foreign incumbents' positions strongly and other party positions not at all; they will ignore systematic differences between median positions; and they will neglect the variance in the random component of median positions when weighing observations. If two countries $C$ and $K$ tend to have similar median voter positions and the random component of median positions is low variance, one median voter will approximate that of the other country and, hence, be near to foreign incumbents' positions. However, ignoring systematic differences between median positions leads to bias that is equal to the weighted sum

[^10]of terms $\Delta_{\mathrm{CK}}$ over other parties and the systems in which they are located. For most countries $C$, there will be some countries, say $J$, whose median voter is systematically to the left of their own ( $\Delta_{\mathrm{CJ}}$ is negative) and others, say $K$, where the median voter is systematically to the right ( $\Delta_{\mathrm{CK}}$ is positive). Thus if $C$ 's median voter systematically tends to be at or near the center of other countries' medians, the bias could be quite low, as positive and negative terms cancel each other out. However, ignoring systematic differences could lead to large errors if $C$ 's median was systematically much to the left or right of other countries' medians. Based on the statistical model, we contend that the basis of the competitive advantage of the follow-the-foreign-leader heuristic is that it is likely to position parties nearer their own median than other possible heuristics such as weighing all foreign parties equally.

Although following foreign leaders may seem plausible and reasonable ex-ante, it could nevertheless be misleading. Kahneman and Frederick (2002) emphasize that relying on heuristics can lead to poor decision making, in part, because potentially relevant and available information is deliberately ignored. This can bring about biased and misleading conclusions (see also, e.g., Adams et al. 2016). With respect to following foreign incumbents, it is thus easy to see why learning from them could lead to biases relative to best-response strategies, because it ignores information that is relevant to making more satisfactory inferences. On the other hand, parties have other information at hand to estimate where the center-ground is, deriving from domestic sources, and bias from following the foreign leader will be reduced to the extent that domestic sources predominant and give sound guidance. Moreover, like other heuristics, following the foreign leader economizes on costs of gathering and processing information. Even if, in
principle, parties could gather the information on the systematic and random components on differences between medians necessary to make better inferences, it might not actually pay them to do so.

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## Supplementary Materials

## S2. Parties and Countries

## Austria

BZÖ Alliance for the Future of Austria (2007-2010)

FPÖ Austrian Freedom Party (19962010)

GRÜNE The Greens (1996-2010)
KPÖ Austrian Communist Party (20032010)

LIF Liberal Forum (1996-1998)
SPÖ Austrian Social Democratic Party (1996-2010)

ÖVP Austrian People's Party (19962010)

## Belgium

AGALEV Live Differently (1982-2010)
CVP Christian People's Party (19772010)

ECOLO Ecologists (1982-2010)
LDD List Dedecker (2008-2010)
MR Reform Movement (2004-2010)
PLDP Liberal Democratic and Pluralist Party (1977-1980)

PRL Liberal Reformation Party (19771994)

PRL-FDF Liberal Reformation Party Francophone Democratic Front (1996-1998)

PRL-FDF-MCC Liberal Reformation Party - Francophone Democratic Front Citizens' Movement for Change (20002002)

PS Francophone Socialist Party (19792010)

PSC Christian Social Party (1977-2010)
PVV Party of Liberty and Progress (1977-2010)

SP Flemish Socialist Party (1977-2010)
SPIRIT Social, Progressive,
International, Regionalist, Integrally
Democratic and Forward-Looking (20082009)

SPIRIT Socialist Party Different (20042009)

## Bulgaria

ATAKA National Union Attack (20062008)

BSP Bulgarian Socialist Party (20062008)

DSB Democrats for a Strong Bulgaria (2006-2008)

KzB Coalition for Bulgaria (2005-2008)
NDSV National Movement Simeon the Second (2005-2008)

ODS United Democratic Forces (20052008)

## Cyprus

AKEL Progressive Party of the Working People (2005)

DIKO Democratic Party (2005)
DISY Democratic Coalition (2005)
KISOS Social Democrats' Movement (2005)

## Czech Republic

CSSD Czech Soc. Democ. Party (20052010)

KDU-CSL Christian and Democratic
Union - Czech People's Party (2007-2010)
KDU-CSL-US-DEU Christian and
Democratic Union - Czech People's Party Freedom Union - Democratic Union (2005)

KSCM Communist Party of Bohemia and Moravia (2005-2010)

ODS Civic Democratic Party (2005-

## 2010)

SPR-RSC Association for the Republic Republican Party of Czechoslovakia (2005)

SZ Green Party (2007-2010)

## Denmark

CD Centre Democrats (1977-2006)
DF Danish People's Party (1999-2010)
DKP Danish Communist Party (19771987)

EL Red-Green Unity List (1995-2010)

KF Conservative People's Party (19772006)

KrF Christian People's Party (19772006)

NY New Alliance (2008-2010)
RV Radical Party (1977-2010)
SD Social Democratic Party (1977-2010)
SF Socialist People's Party (1977-2010)
V Liberals (1977-2010)
VS Left Socialist Party (1977-1986)

## Estonia

EER Estonian Greens (2008-2010)
ER Estonian Reform Party (2005-2010)
IL Pro Patria Union (2005-2006)
K Estonian Center Party (2005-2010)
M People's Party Moderates (2005-2010)
RP Union for the Republic (2005-2010)

## Finland

KK National Coalition (1994-2010)
LKP Liberal People's Party (1994)
NSP Progressive Finnish Party, also
known as Young Finns (1996-1998)
SKL Finnish Christian Union (19942010)

SSDP Finnish Social Democrats (19942010)

VAS Left Wing Alliance (1994-2010)
VL Green Union (1994-2010)

## France

CDP Centre, Democracy and Progress (1977)

CNIP National Centre of Independents
and Peasants - Conservatives (1977-1992)
FN National Front (1987-2010)
GE Ecology Generation (1977-2010)
Les Verts The Greens (1994-2010)
MR Reformers' Movement (1977)
PCF French Communist Party (19772010)

PS Socialist Party (1977-2010)
RPR Rally for the Republic - Gaullists (1977-2001)

UDF Union for French Democracy (1979-2010)

UMP Union for the Presidential Majority (2003-2010)

## Germany

90/Greens Alliance‘90/Greens (19842010)

CDU/CSU Christian Democratic
Union/Christian Social Union (1977-2010)
FDP Free Democratic Party (1977-2010)
L-PDS The Left. Party of Democratic
Socialism (2006-2008)
LINKE The Left (2010)
PDS Party of Democratic Socialism (1991-2004)

SPD Social Democratic Party of
Germany (1977-2010)

## Great Britain

Conservative Party (1977-2010)
Labour Party (1977-2010)
Liberal Party (1977-2010)
SDP Social Democratic Party (19841991)

SF Ourselves Alone (1998-2004)
UUP Ulster Unionist Party (1993-2004)

## Greece

DIKKI Democratic Social Movement (1997-1999)

KKE Communist Party of Greece (19812006)

ND New Democracy (1981-2007)
PASOK Pan-Hellenic Socialist
Movement (1981-2007)
Pola Political Spring (1994-1999)
SYP Progressive Left Coalition (19902003)

SYRIZA Coalition of the Left, Movements and Ecology (2005-2006)

## Hungary

FiDeSz-MPSz Federation of Young Democrats - Hungarian Civic Union (20052010)

FiDeSz-MPSz-KDNP Alliance of Federation of Young Democrats - Hungarian Civic Union - Christian Democratic People's Party (2007-2010)

MDF Hungarian Democratic Forum (2005-2009)

MSzDP Hungarian Social Democratic
Party (2007-2010)
MSzP Hungarian Socialist Party (20052010)

SzDSz Alliance of Free Democrats (2005-2009)

## Ireland

DLP Democratic Left Party (1993-2001)
Family of the Irish (1977-2010)
Green Party (1990-2010)
Labour Party (1997-2010)
PD Progressive Democrats (1988-2010)
Soldiers of Destiny (1977-2010)
WP Workers' Party (1982-1992)

## Italy

AD Democratic Alliance (1995-2000)
CCD Christian Democratic Centre (1997-
2000)

DC Christian Democrats (1977-2000)
DP Proletarian Democracy (1984-1991)
FI Go Italy (1995-2007)
FdV Green Federation (1988-2007)
House of Freedom (2002-2005)
IdV List Di Pietro - Italy of Values
(2002-2010)
LN Northern League (1993-2010)

M-DL Daisy Democracy is Freedom (2002-2005)

MSI-DN Italian Social MovementNational Right (1977-2007)

NPSI New Italian Socialist Party (20022007)

Olive Tree (2002-2007)
PCI Italian Communist Party (19772005)

PD Democratic Party (2009-2010)
PI Pact for Italy (1995)
PLI Italian Liberal Party (1977-1993)
PR Radical Party (1977-2000)
PRC Communist Refoundation Party (1993-2007)

PRI Italian Republican Party (1977-1993)
PSDI Italian Democratic Socialist Party
(1977-1993)
PSI Italian Socialist Party (1977-1995)
PdCI Party of Italian Communists (20022007)

PdL People of Freedom (2009-2010)
PdUP Proletarian Unity Party for
Communism (The Manifesto/Proletarian Unity Party) (1977-1986)

RI Italian Renewal (1977-2000)
RnP Rose in the Fist (2007)
The Girasole (Sunflower) (2002-2005)
UdC Union of the Center (2007-2010)
White Flower (2002-2005)

## Latvia

JL New Era (2005)
LC Latvian Way Union (2005)
LPP Latvia's First Party (2005)
PCTVL For Human Rights in a United Latvia (2005)

TB-LNNK For Fatherland and Freedom Latvian National Independence Movement (2005)

TP People's Party (2005)

## Luxembourg

CSV/PCS Christian Social People's Party (1977-2010)

DP/PD Democratic Party (1977-2010)
GAP Green Alternative (1985-1993)
GLEI Green Left Ecological Initiative (1990-1993)

GLEI-GAP Green Left Ecological
Initiative - Green Alternative (1995-2003)
KPL/PCL Communist Party (19771993)

LSAP/POSL Socialist Workers' Party (1977-2010)

The Greens (2005-2010)
The Left (2010)

## Netherlands

CDA Christian Democratic Appeal (1978-2010)

CU Christian Union (2003-2010)
DS'70 Democratic Socialists'70 (19771980)

D'66 Democrats'66 (1977-2010)
GL Green Left (1990-2010)
LN Livable Netherlands (2003-2005)
LPF List Pim Fortuyn (2003-2005)
PPR Radical Political Party (1977-1988)
PVV Party of Freedom (2007-2010)
PvdA Labour Party (1977-2010)
SP Socialist Party (1995-2010)
VVD People's Party for Freedom and Democracy (1977-2010)

## Norway

DnA Norwegian Labour Party (19912006)

H Conservative Party (1991-2006)
KrF Christian People's Party (19912006)

SV Socialist Left Party (1991-2006)
V Liberal Party (1991-2006)

## Poland

LPR League of Polish Families (20052006)

PO Civic Platform (2005-2010)
PiS Law and Justice (2005-2010)
SLD Democratic Left Alliance (2006)

## Portugal

BE Left Bloc (2000-2010)
CDS Social Democratic Center Party (1986-2010)

CDU Unified Democratic Coalition (1992-2008)

ID Democratic Intervention (1988-1990)
MDP Popular Democratic Movement (1986)

PCP Portuguese Communist Party (19862010)

PEV Ecologist Party 'The Greens' (19862010)

PRD Democratic Renewal Party (19861990)

PS Socialist Party (1986-2010)
PSD Social Democratic Party (19862010)

UDP Popular Democratic Union (19861990)

## Romania

PDL Democratic Liberal Party (20092010)

PNL National Liberal Party (2009-2010)

## Slovakia

ANO Alliance of the New Citizen (2005)
HZDS Movement for a Democratic Slovakia (2005-2010)

KDH Christian Democratic Movement (2005-2010)

KSS Communist Party of Slovakia (2005)

SDKÚ-DS Slovak Democratic and Christian Union - Democratic Party (20052010)

SDL' Party of the Democratic Left (2005)
SNS Slovak National Party (2007-2010)
Smer Direction-Social Democracy (20052010)

## Slovenia

For Real (2009-2010)
LDS Liberal Democracy of Slovenia (2005-2010)

Nsi New Slovenian Christian People's Party (2005-2010)

SD Social Democratic Party (2005-2010)
SDS Slovenian Democratic Party (20052010)

SLS Slovenian People's Party (20052010)

SNS Slovenian National Party (20052010)

## Spain

CDS Centre Democrats (1986-1995)
CiU Convergence and Union (19862010)

IU United Left (1986-2010)
PDP Popular Democratic Party (19861988)

PL Liberal Party (1987-1988)
PP Popular Party (1986-2010)
PSOE Spanish Socialist Workers' Party (1986-2010)

## Sweden

FP People's Party (1996-2010)
Kd Christian Democrats (1996-2010)
MP Green Ecology Party (1996-2010)
MSP Moderate Coalition Party (19962010)

SAP Social Democratic Labor Party (1996-2010)

VPK Left Communists Party (19962010)


[^0]:    ${ }^{1}$ This assumption is supported empirically below.
    ${ }^{2}$ A central component underlying our theoretical argument is that a party in state A would look to state B's incumbent parties as a guide to where A's citizens are when this party could instead rely on special polls or on rival domestic rival parties' positions. The argument for why party leaders pay attention to foreign incumbents is detailed in Böhmelt et al. (2016: 399-400). Although some effort is required for parties to locate foreign incumbents and their policy

[^1]:    ${ }^{3}$ We clarify in the appendix that this heuristic is also likely to work well if parties additionally knew about and took account of systematic differences between median positions, and variance in the random component of such differences was low or if they ignore systematic differences but their domestic median is systematically near the centre of the distribution.

[^2]:    ${ }^{4}$ Following foreign leaders is then analogous to relying on many polls of public opinion, rather than just one poll, when the center ground of politics is similar across a group of countries. We return to this assertion that median voter positions are similar across countries in the empirical section.

[^3]:    ${ }^{5}$ Our sample comprises "traditional" mainstream parties (Social-Democrats, Conservatives, Christian-Democrats, Liberals) and "niche" parties (Communists, Nationalists,

[^4]:    ${ }^{6}$ Two aspects are worth noting here. First, and as discussed in Böhmelt et al. (2016), it takes time for information about the positions of foreign parties to influence positions. According to Adams and Somer-Topcu (2009: 832; emphasis added), developing party manifestos is a "timeconsuming process [...] which typically takes place over a two-three year period during which party-affiliated research departments and committees draft sections of this manuscript, which are then circulated for revisions and approval upward to party elites and downward to activists." Hence, party positions are only observed in election-years, but this does not mean that parties only adjust their positions in close proximity to an election. Second, election dates are not equally distributed across years. Having an election in year x of country y does not imply there is an election in other countries z at the same time. Hence, to allow for political parties influencing

[^5]:    ${ }^{8}$ We discuss in the concluding section that there are several interesting conditions to explore under which the size of the effects that we report may vary considerably. For example, following the foreign leader could arguably be a more effective strategy for a focal party that looks to a foreign incumbent that competes in countries with similar electoral systems (see also Cox 1990).

[^6]:    ${ }^{9}$ We do find evidence of business cycles influencing party positions. Higher unemployment levels are associated with opposition parties shifting further away from the median voter (when incumbency is 0 ).

[^7]:    ${ }^{10}$ These analyses can be replicated with our supplementary materials.

[^8]:    ${ }^{11}$ And this is in this respect analogous to the problems expert political scientists face in placing parties. For example, Benoit, Laver, and Mikhaylov (2009) discuss the uncertainty surrounding estimating party-policy positions in detail.
    ${ }^{12}$ Although vote choice may also be determined by considerations about which coalitions are likely to form after elections, these are secondary to spatial proximity considerations (Bargsted and Kedar 2009).

[^9]:    ${ }^{13}$ The argument easily generalizes to allow for a random component representing other unmeasured influences on the vote so long as it is linear on either side of the median.

[^10]:    ${ }^{14}$ We do not deny that there may be other factors that influence what is known, such as cultural similarity, geography, and so on. However, our empirical focus is on 26 established European democracies, which makes any cultural or geographic distances relatively and comparatively small. In addition, using geographic information, we demonstrate below that median voter positions in Europe do indeed approximate each other and cluster in space.

