Elite Interactions and Voters' Perceptions of Parties' Policy Positions*

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Abstract

Recent research documents that voters infer that governing coalition partners share similar ideologies, independently of these parties' actual policy statements. We argue that citizens estimate party positions from more general forms of inter-party cooperation and conflict, particularly near the times of national elections. We analyze tens of thousands of media reports on elite interactions from 13 Western democracies between 2001 and 2014, and show that – controlling for coalition arrangements and for the policy tones of parties' election manifestos – voters infer greater left-right agreement between pairs of parties that have more cooperative public relationships, but that this "cooperation effect" is only evident near the times of national elections. Our findings have implications for parties' policy images and for mass-elite linkages.

Verification Materials:

The data and materials required to verify the computational reproducibility of the results, procedures and analyses in this article are available on the American Journal of Political Science Dataverse within the Harvard Dataverse Network, at: https://doi.org/10.7910/DVN/KH9N7W.

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Extensive research analyzes how citizens estimate parties' ideological and policy positions in response to factors such as their election manifestos (e.g., Fernandez-Vazquez and Somer-Topcu 2018), the composition of the governing coalition (Fortunato and Stevenson 2013), and the policies they implement when they govern (Adams, Bernardi, and Wlezien N.d.). The Fortunato-Stevenson coalition-based research documents that voters use cabinet participation as a heuristic to infer policy agreement between coalition partners (see also Falco-Gimeno and Fernandez-Vazquez, 2019). We extend this research to assess whether citizens infer broad policy agreement from more general forms of inter-party cooperation and conflict, and also make policy-related inferences based on party elites' interactions with non-partisan actors such as labor union representatives, business and trade associations, and religious groups.

The types of elite interactions we study, which include inter-party bargaining and consultations, party elites' public statements praising or denouncing rival parties, and politicians' interactions with non-partisan actors, are the stuff of day-to-day political news coverage. Yet to date no study evaluates whether media reports of these events influence parties' policy images. We ask the questions: All else equal – including governing coalition arrangements and parties' policy statements in their election manifestos – do citizens infer that pairs of parties which exhibit more cooperative public relationships share greater degrees of policy agreement? And, does the answer to this question depend on the time point in the national election cycle?

We present theoretical and empirical analyses which suggest that the answer to each of the above questions is *yes*. Theoretically, we delineate arguments for (and also against) the proposition that citizens will infer party policy agreement from public displays of inter-party cooperation and conflict as reported in the media. We then argue that if citizens rely on this information, they should do so more heavily in the run-up to national parliamentary elections. Empirically,

we analyze the degree of cooperation and conflict in public relationships among political parties from 13 Western European democracies between 2001 and 2014. Our measure is based on latent factor network models of machine-coded news stories that report tens of thousands of interactions between elites from different political parties, along with politicians' interactions with non-partisan actors (see Weschle 2018). We show that the degree of inter-party cooperation and conflict varies sharply across different pairs of parties, and that, while governing coalition partners on average have more cooperative relationships than other party pairs, there is surprising variation in the tenor of coalition partners' relations. We then assess whether these inter-party relationship scores predict citizens' perceptions of parties' Left-Right ideological positions. These perceptions are drawn from surveys administered around the times of national parliamentary elections as well as at other points in the election cycle.

Controlling for governing coalitions and for the policy tones of parties' election manifestos, we find that around the times of national elections citizens perceive more Left-Right agreement between pairs of parties that have more cooperative public relationships. We also find that this cooperation effect is not detectible at other points in the election cycle. Finally, the results show that citizens also apply the coalition heuristic, particularly in non-election years, when the cooperation effect is not evident.

Our findings have implications for party strategies and for mass-elite linkages. First, they imply that party elites can influence their policy images in the mass public during the run-up to a national parliamentary election, by publicly cooperating with – or picking fights with – rival parties (and also with non-political actors). Of course, the time period surrounding national elections is exactly when political parties have the strongest incentives to shape their policy images, since they affect their vote shares (see Adams 2012 for a review of this literature).

Second, our findings reflect positively on the mass public's political capacities. To infer parties' relative positions from public displays of inter-party relationships, citizens must parse out (at least some of) the day-to-day political news coverage of party interactions, i.e., they must acquire a nuanced sense of how political parties behave towards each other and towards other societal actors. This strikes us as a challenging task. Yet, our empirical analyses suggest that around the time of national elections, the mass public roughly estimates how cooperative the relationships between different pairs of parties are, and uses these estimates to infer parties' relative policies. This finding adds to Fortunato and Stevenson's (2013) identification of the coalition heuristic: while citizens do indeed rely on the simple information shortcut of formal coalition arrangements, they supplement this heuristic with inferences based on far more nuanced perceptions of how parties interact with each other – but only near the times of national elections.

Do Citizens Infer Parties' Policy Positions based on their Public Interactions? When Do They Do So?

Many studies on parties' election strategies and mass-elite linkages implicitly assume that voters accurately perceive parties' policy positions (e.g., Calvo and Hellwig 2011; Adams, Merrill, and Grofman 2005). But, this is an empirical issue and raises the question: what types of information do citizens consider when estimating party positions? One possibility is that they respond to election manifestos and the policies that governing parties enact when in office. Indeed, research finds that citizens' party placements correlate reasonably well with the policy tones of the manifestos (e.g., Bakker et al. 2012; Dalton and McAllister 2015), and that citizens also respond to government policy outputs (Wlezien 1995; Erikson, MacKuen, and Stimson

2002; Soroka and Wlezien 2010; Adams, Bernardi, and Wlezien N.d.).[1] In addition, Fortunato and Stevenson (2013) show that voters perceive co-governing parties to have similar Left-Right positions, because voters recognize that coalition partners feel pressure to compromise, and that parties with similar ideologies often coalesce. The authors find that citizens perceive coalition partners' ideologies as substantially more similar than is implied by the Left-Right policy tones of their election manifestos, i.e., citizens employ a coalition heuristic to infer party ideologies.

But are there additional information sources citizens employ to infer policy agreement between parties? Here we consider the hypothesis that citizens observe the cooperative and conflictual public interactions of political parties and societal actors through the media, and infer that pairs of parties that have more cooperative relationships share more similar policies. This cooperation effect may in part reflect – and correlate with – Fortunato and Stevenson's coalition heuristic, as joint governance is likely to influence inter-party behavior. Yet, not all coalition partnerships are equally cooperative, either at particular points or over time. In particular, political parties express inter-party cooperation or conflict in many ways beyond formal coalition partnerships. Party elites praise or denounce other parties' policies and performance; elites publicly consult or negotiate with another party's representatives; and steer such inter-party negotiations towards an amicable conclusion (or not). Party elites similarly cooperate or clash with organizations that are not explicitly partisan but that the public associates with specific policies or values, including labor unions, business organizations, religious groups, representatives of the military

[1] The research shows that citizens thermostatically adjust their own preferences for government spending in various domains in response to actual levels of government spending, which suggests that citizens, in the aggregate, fairly accurately perceive government spending patterns.

and law enforcement, and so on. Indeed, day-to-day media reports in Western democracies consistently chronicle these types of interactions, including whether they were *cooperative* (e.g., "the leader of Party X praised Party Y's decision to endorse the government's tax policy") or *conflictual* (e.g., "the Prime Minister clashed with union leaders over labor market reforms"). Such media reports may allow citizens to assess which pairs of political parties interact cooperatively, which pairs interact conflictually, and how different parties interact with visible non-partisan organizations.

The above discussion raises the questions: All else equal – including governing coalition arrangements and the policy tones of parties' election manifestos – will citizens perceive pairs of parties that have more cooperative public relationships as sharing more similar policies? And, should the answer to this question depend on the point in the country's national election cycle?

The first question is interesting because theoretical arguments point in conflicting directions. The argument in favor of voters making cooperation-based inferences is that this may be a sensible approach. In the absence of nuanced information about party policies, citizens may use the warmth of parties' public relations in media reports as a rough indicator of policy agreement. This makes sense for two reasons: public interactions between the parties are likely to reflect real political cooperation and conflict; and when updating their perceptions of the parties, citizens have little alternative to relying on media reports of their public actions. With respect to the first point, research by Lee, Santoso, and Stevenson (2018) finds, in a conjoint experiment, that British, Canadian, and German subjects place hypothetical parties' Left-Right positions nearer to existing parties when they are provided information indicating that the hypothetical party cooperated more with an existing party. Citizens might plausibly apply this approach in concert with

other considerations, including the composition of the governing coalition and whatever policy details they glean from parties' manifestos and their previous policy behavior.[2]

The above arguments notwithstanding, alternative considerations cast doubt on whether citizens draw policy-based inferences from inter-party interactions. First, unlike the coalition heuristic which requires only that citizens recognize the composition of the cabinet – information that virtually all citizens possess (Duch, May, and Armstrong 2010) – the types of cooperation-based effects we posit are qualitatively different: they require citizens to roughly estimate how much political parties cooperate or conflict with each other, as well as with non-partisan actors (labor unions, business groups, etc.). This is a more demanding cognitive task. Second, citizens may suspect that parties at times strategically cooperate or conflict in order to shape their public images, i.e., that parties may intentionally "pick fights" with each other to magnify public perceptions of inter-party policy differences. In this regard, Sagarzazu and Klüver (2017) document that governing coalition partners in Germany issued press releases that accentuated their differences near the times of national elections, in an effort to publicly convey distinctive images that

[2] The cooperation-based effects also relate to the likability heuristic proposed by Brady and Sniderman (1985), where citizens infer political parties' (and other social groups') positions from their own affect towards these groups. To the extent that citizens use their affect towards parties to infer their positions, citizens plausibly extend this heuristic to estimate greater inter-party policy agreement between pairs of parties that have more harmonious relationships. Also see Miller, Wlezien, and Hildreth (1991). A related literature analyzes assimilation/contrast effects, whereby survey respondents exaggerate their perceived policy distances from political parties with which they disagree, while minimizing perceived distances with those whose positions are objectively closer to their own views (e.g., Calvo, Chang, and Hellwig 2014).

enhanced their electoral prospects. Citizens might suspect that parties which publicly clash are "protesting too much," in a strategic effort to distinguish their images. Thus, citizens might discount public interactions, and not update their perceptions based on media reports.

In summary, there are good arguments for why citizens should and should not take the public relationships among parties into account when forming their perceptions of policy positions. Which effect dominates is a priori unclear. However, if there is a cooperation effect, it should depend on the *point in the national election cycle*. We expect citizens to acquire substantially more information about inter-party cooperation and conflict around the times of national elections, for two reasons. First, parties plausibly interact more as national elections approach and/or the media covers politics more intensely during election campaigns, so that the number of reports pertaining to party elites' interactions should increase during these periods. (Below we report analyses of coded media reports from thirteen Western democracies that support this expectation.) Second, research suggests that citizens' motivation to acquire political information increases near the time of national elections. Abney et al. (2013) analyze media coverage from six Western European democracies and find that only those media reports issued near the times of national elections exerted detectible effects on party support. This supports Gelman and King's (1993) argument that citizens become more enlightened during national election campaigns due to the intensity of political media coverage, and because citizens are especially motivated to seek out political information during these periods.[3] Further, Arceneaux (2006) demonstrates that election campaigns help people sort themselves by party and take stock of perfor-

[3] Stevenson and Vavreck (2000) extend Gelman and King's analysis across Western democracies.

mance, and Andersen, Tilley, and Heath (2005) find that British citizens' information about parties peaks near the times of national parliamentary elections.[4] This research implies that citizens' information about parties' public interactions is greatest in the run-up to national elections.

In toto, there are theoretical arguments as to whether citizens will or will not infer inter-party policy differences from media reports of party interactions. Such an inference strategy appears intuitively plausible, and the experimental research discussed above suggests that citizens make these inferences. Yet citizens may not closely follow media reports of inter-party cooperation and conflict, or they may discount them. However, to the extent that citizens make cooperation-based inferences, there is reason to expect such effects to be most pronounced near the times of national elections.

Measuring Cooperative and Conflictual Public Relationships between Parties

To measure inter-party cooperation and conflict as reported in the media, we apply the approach introduced by Weschle (2018), which uses a combination of large-scale machine-coded event data and latent factor network models to produce a dyadic variable that quantifies the public relationships between political parties. Here, we provide a nontechnical explanation of this variable's construction.

Machine-coded news reports

The raw material for the inter-party relationship measure comes from the Integrated Crisis Early Warning System (ICEWS) dataset, which contains machine-coded event data about interactions between political and societal groups. The data were collected by the US government

[4] See also Fortunato, Silva, and Williams (2018).

as a tool to forecast international crises (O'Brien 2013) and are publicly available (see Boschee et al. 2015). The source material for the ICEWS data are the news reports from two of the largest existing media repositories, *Factiva* and the *Open Source Center*. They collect all reports published in hundreds of outlets, including newspapers, magazines, and newswires. Events are identified and extracted using a natural language analysis system (Ramshaw et al. 2011) that provides the event source, the event target, and classifies the event type (e.g., as "criticize and denounce", "praise", etc.). Since we are interested in the relationships between parties within a country, we only consider events with both a domestic source and target.

The event information is further processed in two ways. First, all politicians from the same party are aggregated into a unified actor. The data also include information on interactions involving non-partisan actors such as judges, police, the representatives of labor, business, and religious bodies, and so on. These are not aggregated in any way. Second, the event type coding is simplified into either cooperative or conflictual.

To see what the machine-coded event data look like, consider the following example. On October 1, 2014, the *New York Times* reported from the party convention of the UK Conservatives. The fourth sentence of the article starts with: "In a polished and at times emotional speech that closed his party convention, Mr. Cameron mocked Labour and its leader, Ed Miliband (…)".[5] This public event enters the data as follows: The event source is the Conservative Party (of which David Cameron was the leader), the target is the Labour Party, and the event type is conflictual. Section A in the Supporting Information (SI, p. 1-9) provides further information on

[5] Available online at https://www.nytimes.com/2014/10/02/world/europe/david-cameron-with-eye-on-next-election-tries-to-rouse-his-base.html.

the data, including descriptive statistics as well as the media sources. It also discusses the machine coding accuracy and the limitations of the data.

Quantified Political Relationships

Over time, citizens encounter many news reports about cooperative and conflictual interactions between socio-political actors. They learn about a politician from party A criticizing party B which may, in turn, praise a visible group or individual with no explicit partisan affiliation, such as a trade union leader, who subsequently denounces party C. The event data record a large, plausibly representative sample of such interactions.

Weschle (2018) uses a latent factor network approach to transform these data into a measure that quantifies the public relationships among political parties as well as other societal actors. The central idea is to think about the events reported by the media as emerging from a network of relationships among political and societal actors. The latent factor network approach infers this network by locating actors in a low-dimensional "social space" (cf. Hoff 2005; Hoff 2015; Minhas, Hoff, and Ward 2019). The nature of the relationship between two actors is represented by a multiplicative effects term, which we call the relationship score.

The dyadic relationship score is larger if two actors have more cooperative interactions with each other, and also if they have more of the *same types* of interactions with third actors. If, for instance, two political parties both interact cooperatively or conflictually with labor unions, these parties would have a higher score (all else equal). The relationship score is smaller if two actors have more conflictual interactions with each other, and if they tend to interact with third

actors in different ways.[6] Section B in the SI (p. 10-11) provides technical details on the latent factor network models.

Example: United Kingdom, 2001-2014

To show what the measure looks like in practice, Figure 1 displays the inter-party relationship scores for Britain between 2001 and 2014. The scores in grey are based on annual event data for each calendar year, while those in black are based on event data from the twelve months prior to the four surveys in the United Kingdom that we analyze below (June 2004, August 2005, June 2009, June 2014). The measure exhibits construct validity. The relationship scores between the Labour and Conservative parties are consistently negative, while those between Labour and the Liberal Democrats are mostly positive prior to 2010, when the Liberal Democrats formed a surprising governing coalition with the Conservatives. Indeed, the most positive inter-party relationship score is that between the Liberal Democrats and the Conservatives for 2010, the year these parties forged their historic coalition agreement. Note, however, that the relationship score for the two parties declines sharply after 2010, which captures scholars' interpretations of the 2011-2014 period when the Liberal Democrats' leader (and Deputy Prime Minister) Nick Clegg strove to differentiate his party's image from the Conservatives, by publicly questioning and criticizing many Conservative policy initiatives as well as the governing style of the Conservative Prime Minister David Cameron (see, e.g., Cowley and Kavanaugh 2016).

[FIGURE 1 ABOUT HERE]

[6] Our results are robust to using relationship scores that exclude interactions involving non-party actors, see below.

Using Quantified Political Relationships Data to Measure Cooperation and Conflict

This pattern for Britain illustrates the fact that governing coalition partners' public interactions are not uniformly positive: while co-governing parties typically refrain from publicly criticizing government legislation *after the fact* due to the norm of collective responsibility, *before the fact* coalition partners have some leeway to clash over the details of legislative proposals, either due to sincere policy differences or in a strategic effort to maintain a distinctive policy image. In this regard, Fortunato (2019) analyzes the legislative review process in Belgium, Denmark, and the Netherlands and finds that coalition parties amend their partners' legislation more freely when voters perceive them growing more similar to each other, which suggests that coalition partners at times explicitly provoke public confrontations in order to influence citizens' perceptions. Below we report descriptive statistics for our party relationship measure, which show a surprisingly large proportion of public conflict between coalition partners.

While we believe our measure represents the most comprehensive media-based estimate of inter-party cooperation and conflict devised to date, we are under no illusions that it perfectly captures either the true nature of parties' underlying interactions or citizens' perceptions of these interactions as filtered through the media. As regards coverage, Weschle (2018) notes that the national media reports that are coded in the ICEWS data may focus disproportionately on national party leaders' behavior, so coverage of local politicians and backbench members of parliament may be more limited. In other words, the event data filter the total set of interactions and report only a fraction of it. However, citizens who learn about political developments by following the news will be subject to the same filtering. The composition of events in the ICEWS data should thus roughly mirror the composition of actors in news reports to which citizens are exposed.

As regards public consumption of coverage, many citizens plausibly register only a fraction of the media reports we analyze and, as discussed above, they have stronger motivation to acquire this information prior to national elections than at other points in the election cycle. We also note that citizens at times seek out and interpret information through the prism of their pre-existing partisan loyalties (e.g., Goren, Federico, and Kittilson 2009), so that the media reports they consume may be a biased sub-sample of the reports in our data set. All of this said, recent research shows that media coverage does closely reflects changes in the real economy and public policy itself, and the coverage of both appears to influence public perceptions (Soroka, Stecula, and Wlezien 2015; Neuner, Soroka, and Wlezien 2019).

Ideally we could empirically evaluate how citizens' perceptions of inter-party cooperation and conflict match up with our ICEWS-generated relationship scores. However, no available surveys elicit respondents' estimates of the degree of cooperation between different pairs of parties. Hence we instead evaluate an empirically testable consequence of citizens' perceptions of inter-party cooperation, as filtered through media reports: namely their effects on citizens' perceived policy distances between parties. To the extent that our inter-party relationship scores do not capture citizens' actual reactions to national media reports, or that citizens weigh interactions between local elites and backbench MPs that the national media ignores, this disconnect should bias our study towards finding *no relationship* between media reports of inter-party cooperation/conflict and voters' perceived party positions. As such, a positive relationship between our measure and public perceptions would be strong evidence of a true effect. On this basis we proceed.

Data and Model

We analyze whether citizens infer parties' relative positions from the tenor of media reports of party relationships, and whether citizens' reliance on this inference strategy peaks near the times of national elections. Our focus is on voters' perceived *Left-Right* positions, as this is the main dimension of political competition in Western democracies, and it is the one for which we have citizens' party placements across the widest set of surveys.

Data

We rely on an extensive dataset of perceived Left-Right positions assembled by Fortunato, Silva, and Williams (2018) that includes surveys from the Comparative Study of Electoral Systems (CSES), the European Election Studies (EES), and from national election studies. Given the availability of the public relationship data, we analyze 64 surveys from 13 countries between 2002 and 2014. The countries are: Austria, Belgium, Denmark, Finland, France, Germany, Greece, Ireland, Italy, The Netherlands, Portugal, Spain, and the United Kingdom. Section A.3 in the SI (p. 7-8) list the dates of the surveys. We note that all of the CSES and national election study surveys were administered near the times of national parliamentary elections, whereas the EES studies coincided with European Parliamentary elections and hence were rarely administered near the dates of national parliamentary balloting.

The surveys ask respondents to place the parties on a zero to 10 Left-Right scale, where higher values denote more right-wing placements.[7] Given our interest in how media reports of

[7] The question wording is as follows: "In political matters people talk of "the left" and "the right". What is your position? Please use a scale from 0 to 10, where '0' means "left" and "10" means "right". Which number best describes your position? And about where would you place

party interactions influence parties' relative Left-Right images, our dependent variable is the *absolute distance* between the survey respondents' mean placements of parties *i* and *j*, computed over all respondents who provided valid party placements. We label this variable [*Perceived distance between parties i,j* (*t*)]. Below we report robustness checks using an alternative perceived distance measure.

Our key independent variable is the media-based measure of the public relationship between parties *i* and *j*, [*Dyadic relationship score for parties i,j* (*t*)], where higher values denote more cooperative inter-party relations. To estimate the relationship scores, we use the media reports from the *twelve months* preceding the survey. Research finds that voters primarily weigh economic conditions during the year prior to national elections (e.g., Lewis-Beck and Stegmaier 2000), so there is reason to think that citizens' party perceptions reflect media reports over comparable periods.[8] The relationship scores are based on a total of 49,406 events involving 1,984 unique actors. If citizens make policy-based inferences from parties' public interactions, the coefficient on our inter-party relationship variable should be *negative*, denoting that as parties cooperate more the perceived distance between their positions declines.

[INSERT PARTY NAME] on this scale?"

[8] We have re-estimated our models using relationship scores based on media reports from six and nine months prior to the election survey, and results continue to support our substantive conclusions (see Section C.3 in the SI, p. 15-16). To the extent that our inter-party cooperation measures encompass time periods when citizens are not yet politically engaged (as may occur when there is a snap election that focuses citizens' political attention only a few weeks before the election survey), our results likely provide conservative estimates of citizens reactions to these media reports.

We control for additional variables that plausibly influence parties' policy images. First, previous research establishes that citizens respond to the policy statements in parties' *election manifestos* (e.g., Bakker et al. 2015), so we include the variable [*Manifesto-based distance between parties i,j* (*t*)], which denotes the absolute difference between the Comparative Manifesto Project (CMP) codings of the two parties' Left-Right positions, based on the most recent national election manifestos. The CMP scores are computed following the procedure proposed by Lowe et al. (2011).

Second, to account for the possibility that citizens apply the Fortunato-Stevenson *coalition heuristic* we include the dummy variable [*parties i,j are coalition partners* (*t*)], which equals one if parties *i* and *j* were partners in the national governing coalition at the time of the survey, and zero otherwise. We expect the coefficient on this variable to be *negative*, indicating that citizens perceive smaller Left-Right distances between coalition partners.

Finally, to evaluate whether citizens cue off of parties' shared opposition status we include the dummy variable [*parties i,j are both in opposition* (*t*)], which equals one if parties *i* and *j* were both in opposition at the time of the survey, and zero otherwise. The residual category in our analyses is thus a party pair featuring one governing and one opposition party. We include this joint opposition variable to estimate whether citizens infer that pairs of opposition parties share more similar positions, compared to government-opposition party pairs.

Table 1A provides descriptive statistics for all of our variables, while Table 1B reports the means and standard deviations of the dyadic relationship scores subdivided according to whether or not parties were partners in a governing coalition. These indicate that coalition partners displayed higher levels of public cooperation, on average: the mean [*Dyadic relationship score for parties i,j* (*t*)] value is +0.30 when computed over pairs of co-governing parties, which

exceeds the mean value (0.00) for other party pairs ($p<0.01$). Furthermore the variation in inter-party relationship scores is greater for coalition partners: the standard deviation is 0.75 for pairs of coalition partners, but only 0.40 for other party pairs. This comparison, which was foreshadowed in our discussion of the Conservative-Liberal Democrat governing coalition in the UK – where these parties initially cooperated to forge their coalition agreement, but then proceeded to engage in extensive public conflicts – implies that it is not always the case that coalition partners publicly display similar (positive) degrees of cooperation. Instead, given the greater variation in the degree of cooperation between coalition partners than between other pairs of parties, to the extent that citizens infer party policy differences from inter-party relations, this inference strategy should be especially informative for estimating differences between co-governing parties.

[TABLE 1 ABOUT HERE]

Model

We specify the following model, estimated over all party-dyads within a country *c* at time *t*:

$$
\begin{aligned}
&[\textit{Perceived distance between parties } i,j\ (t)] = \\
&\quad b_{ct} + b_1[\textit{Dyadic relationship score for parties } i,j\ (t)] \\
&\quad + b_2[i,j \textit{ are coalition partners } (t)] \\
&\quad + b_3[i,j \textit{ are both in opposition } (t)] \\
&\quad + b_4[\textit{Manifesto-based distance between parties } i,j\ (t)] \quad . \qquad (1)
\end{aligned}
$$

We estimate a separate intercept using fixed effects for each country-period, which controls for contextual factors (economic conditions, electoral laws, societal cleavages, etc.), so that we analyze only variance *within* country-periods. This approach addresses potential concerns

about cross-national comparisons of the perceived Left-Right positions, as well as the separately estimated latent social spaces upon which the relationship scores are based. Robust standard errors are clustered at the dyad level. The regressions account for the estimation uncertainty of the perceived party positions, the manifesto positions, and the inter-party relationship scores.[9]

The Effects of Inter-Party Cooperation on Perceptions of Policy Positions

Do media reports of political elites' public interactions shape how citizens perceive parties' policy positions, and does the answer depend on the point in the national election cycle? Table 2 displays our parameter estimates, for surveys that were administered within six months of a country's national parliamentary election (column 1), and for surveys from other points in the election cycle (column 2).[10] We note first that there are approximately 42% more coded media reports of party interactions in the run-ups to the surveys administered close to the times of

[9] For each of the three variables, we create 1,000 draws by either using the entire posterior distribution (relationship scores) or based on their standard errors (party perceptions and manifesto differences). Each of these draws is used in a separate regression. We then simulate 500 coefficients for each of the 1,000 regressions and combine them. Point estimates and standard errors are computed from the combined coefficient distributions.

[10] As discussed above, the CSES and the national election studies in our data were all administered within six months of a national parliamentary election (usually within one or two months), while the EES surveys – timed to coincide with European Parliament elections – were mostly administered more than six months away from a national election.

national parliamentary elections compared to surveys from other points in the election cycle, presumably reflecting greater media coverage of politics as national elections approach.[11] However, the average tone of party interactions, as measured by our inter-party relationship scores, does not vary significantly with the point in the national election cycle: As Table 1C shows, the average is +0.06 near to national elections and +0.02 at other points, and the difference is not statistically significant (p=0.72).

With respect to our control variables, as expected we find that voters' perceptions respond to parties' manifesto-based policy statements. For the election-year analyses, the coefficient on the [*Manifesto-based distance between parties i,j* (*t*)] variable (0.63, $p < .01$) implies that a one standard deviation (0.89) increase in the policy position difference between two parties as laid out in their manifestos increases the perceived distance between them by 0.56 units on the 0-10 Left-Right scale, all else equal. We also observe that citizens apply the coalition heuristic: our estimate on the [*i,j in the governing coalition* (*t*)] variable (-0.46, $p < .10$) for the election-year analyses (column 1), implies that citizens' predicted perceptions of governing coalition partners are a little less than half a unit closer together on the 0-10 Left-Right scale, compared to predicted perceptions of one governing and one opposition party (the residual category). By contrast we find no evidence of an "opposition parties heuristic," as the coefficient on the [*i,j are both in opposition* (*t*)] variable is near zero and insignificant.

We now consider the relationship-based effects of primary interest. For the analyses of national election years the negative coefficient on the [*Dyadic relationship score for parties i,j*

[11] On average, the ICEWS data report 887 interactions in the 12 months before a survey that did take place around the time of national elections, compared to 624 stories in the year before non-election surveys.

(*t*)] variable (-0.61, $p < .01$) implies that citizens perceive smaller Left-Right differences between pairs of parties that interact more cooperatively. Moreover, the magnitude of these estimated effects is substantial: for coalition partners, a one standard deviation increase in the mean inter-party relationship score for coalition partners (an increase of 0.75) shrinks the predicted perceived distance between governing parties by 0.46 units on the 0-10 Left-Right scale.[12] This 0.46-unit predicted effect of a one standard deviation change in the dyadic relationship score between coalition partners is equal to the predicted effect of the parties *i, j* being in a formal governing coalition. Our analyses thus expand the Fortunato-Stevenson finding that citizens cue off the simple fact of joint governance, to show that near the times of national elections citizens also draw inferences from media reports of party interactions.

Column 2 displays parameter estimates for surveys *not* administered near the time of national elections. It supports our argument that citizens will place less weight on parties' visible interactions away from national elections: the coefficient on the [*Dyadic relationship score for parties i,j* (*t*)] variable is near zero and insignificant. By contrast, we estimate that citizens heavily weight the coalition heuristic, in that the coefficient on the [*i,j in the governing coalition* (*t*)] variable, -1.25 ($p < .01$), is large and significant. We also continue to identify strong effects associated with the [*Manifesto-based distance between parties i,j* (*t*)] variable. Interestingly, the coefficients of coalition participation and manifesto differences are larger in the time periods away from national parliamentary elections. In particular, the effect size of the coalition heuristic almost triples in size. The results imply that citizens rely more on basic cues in between national elections, and then, as elections approach, they focus more on media reports of party interactions.

[12] A one standard deviation increase in the relationship score for all parties (0.48) decreases the perceived distance between two parties by 0.29 units.

This is exactly what we would expect given the large and growing literature on the effects of election campaigns discussed earlier.

[TABLE 2 ABOUT HERE]

Figure 2 displays the predicted effects of inter-party cooperation and conflict (the horizontal axis) on citizens' perceived distances between parties (the vertical axis), with the value of the [*Manifesto-based distance between parties i,j* (*t*)] variable fixed at its mean value. The computations are for a party pair in a governing coalition. Figure 2(a) displays predictions for citizens' perceptions during *election years*, including 95 percent confidence intervals. Figure 2(b) displays predicted perceptions for *other points in the electoral cycle*. The downward slope of the line in Figure 2(a) illustrates that, during election years, parties' perceived Left-Right differences sharply decrease as their public relationships becomes more cooperative. By contrast, the nearly horizontal slope of the line in Figure 2(b) illustrates that public displays of inter-party cooperation and conflict exert little effect on parties' Left-Right images at other points in the election cycle.

[FIGURE 2 ABOUT HERE]

Additional Analyses

We re-estimate our model using an alternative perceived party position measure developed by Fortunato, Silva, and Williams (2018), who argue that the mean perceived party position measure does not account for differences across survey samples, and for differential survey response rates – in particular for low-information respondents' unwillingness or inability to place

smaller parties. To address these issues, the authors develop an alternative perceived party position measure – which they label "Sophia" – and show that use of this measure often leads to a better model fit and can generate different conclusions about how parties' perceived positions change over time, compared to the use of the standard mean perceived position measure.[13] We re-estimate the parameters of Equation (1) using the "Sophia" measure of parties' perceived positions. These estimates, reported in columns 3-4 of Table 2, continue to support our substantive conclusions: The coefficient on the [*Dyadic relationship score for parties i,j* (*t*)] variable is again large and statistically significant ($p < .01$) in analyses of election years (column 3), and is again small and insignificant in non-election years (column 4).

In addition, we conduct several additional analyses to check the robustness of our findings. First, because the ICEWS data include few direct reports from national media sources in Austria, Denmark, Finland, and the Netherlands, we re-estimate our models with these countries omitted from our analyses. Second, we estimate our models using an alternative media-based measure of inter-party cooperation and conflict that excludes third-party interactions, i.e., a measure based entirely on *direct* interactions between pairs of parties. Third, we use relationship scores only based on events in the 6 and 9 months preceding the surveys. Finally, we run the models with alternative fixed effects specifications. These robustness checks, reported in Section C of the SI (p. 12-18), continue to support our substantive conclusions.

[13] In particular, the Sophia measure is the party placement imputed to a respondent with a fixed set of demographic characteristics, e.g., a 35 year-old woman with a secondary education and middle-class income who does not identify with the party she is placing, so that this measure controls for important cross-national demographic differences.

Discussion and Conclusions

Based on media reports of tens of thousands of events in thirteen Western European democracies between 2001 and 2014, we have analyzed whether parties' public relationships with each other – and with non-partisan groups – inform citizens' perceptions of parties' ideological positions. The relations can involve visible public acts that convey *approval or cooperation*, such as praising other parties' politicians, or *disapproval or conflict*, such as denunciations of rival politicians. These kinds of interactions form the basis of much day-to-day political news coverage in Western democracies, yet ours is the first study to evaluate whether such reports shape citizens' perceptions of party positions. We have argued that citizens are most likely to cue off of these types of interactions near the times of national parliamentary elections, when political news coverage is heaviest and when citizens are most attentive. Our empirical analyses support this expectation. We estimate that near the times of national elections, citizens perceive pairs of parties that have cooperative public relations as sharing more similar ideologies than those that exhibit conflictual relationships, all else equal. These cooperation-based inferences are different from the coalition heuristic identified by Fortunato and Stevenson: the latter is an informational shortcut that prioritizes a single piece of well-known information (the identities of the governing parties), whereas the cooperation-based effects we analyze require a more nuanced understanding of the current political environment. We find that near the times of national elections, both factors influence parties' Left-Right images. By contrast, we find no detectible evidence that citizens cue off of media reports of party interactions at other points in the election cycle, but that they continue to employ the coalition heuristic.

Our findings imply that, around the times of national elections, citizens can roughly estimate the degree of public cooperation and conflict between political parties. However, we emphasize that citizens need not be political "encyclopedias" to assess the tenor of inter-party relationships (Lupia and McCubbins 1998). The media reports we analyze constitute an average of over 770 annually reported events per country, and citizens might roughly extrapolate the "true" tenor of inter-party relationships based on a fraction of such reports. And it may be that an "online model" of information processing is at work, where voters update their general summary judgment of parties while forgetting the details (Lodge, et al 1995).

Our findings suggest directions for future research. First, we do not directly analyze citizens' perceptions of the tone of party interactions as reported in the media, since there is no survey data that registers these perceptions; instead we evaluate an *observable consequence* of these citizen perceptions, namely, how they affect citizens' beliefs about the degree of inter-party Left-Right agreement. We hope our findings prompt survey designers to include questions eliciting respondents' perceptions of inter-party relationships, so that we can directly assess the link between these perceptions and the codings of national media reports we analyze here.

Second, we do not assess differences across types of citizens and parties. We might expect politically-interested citizens – who consume more political news reports – to cue most strongly off reports of party interactions when they estimate parties' relative positions. We also might expect that citizens are more attentive to reports about larger, more politically influential parties, and that partisans are especially attentive to interactions involving their preferred party (e.g., Adams, Ezrow, and Somer-Topcu 2014). Such analysis is currently limited by the available data, particularly across different points in the election cycle.

Third, our finding that party elites can influence their policy images by publicly cooperating or conflicting with rival parties (and with non-political actors) around the times of national elections raises the question of how often politicians engage in "symbolic" acts of public cooperation or conflict, expressly designed to shape their images. Our impression is that these types of strategies are common, and at times achieve their desired effect, yet such public actions may be discounted and even backfire if citizens' perceive the political calculations behind them. There also is work to be done on how citizens' reactions to media reports evolve across the election cycle, beyond our finding of stronger citizen reactions near the times of national parliamentary elections. It would be interesting to analyze just when citizens' attention to political news reporting "kicks in," i.e., is there a gradual build-up as the election approaches or an abrupt shift in response to the formal start of the election campaign? Such an analysis also is limited by the available data.

Finally, we hope our findings prompt follow-up research about the many possible additional effects of media reports of inter-party conflict and cooperation. Do these reports influence citizens' party evaluations, and through this their vote choices? Do they also influence the degree of affective polarization in the mass public, i.e., the extent to which partisans disapprove of rival parties relative to their own party (e.g., Iyengar, Sood, and Lelkes 2012)? Do parties' public interactions help them persuade citizens about desirable policies, and through this the distribution of public opinion (e.g., Milazzo, Adams, and Green 2012)? We believe these questions suggest promising directions for future research, and thus that the analyses we report here are only a starting point. Perhaps the most basic question of all is: Do the media reports that citizens respond to in fact provide a reasonably faithful snapshot of the true state of parties' relationships? If the answer is "no", then the policy-based inferences citizens draw from media reports

have a flawed starting point, so that they may conceal more than they reveal. Our findings on citizens' perceptions of party Left-Right positions are not the end of the story about the political effects of parties' public interactions, but we hope they are a good beginning.

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Table 1. Descriptive Statistics

1A. Basic Descriptive Statistics

Variable	Mean	Std. Dev	Min	Max
Perceived distance between parties i,j	2.56	1.63	0.00	8.51
Dyadic relationship score for parties i,j	0.04	0.48	-2.36	3.14
Manifesto-based distance between parties i,j	0.94	0.89	0.00	11.13
i,j are coalition partners	0.16	0.36	0.00	1.00
i,j are both in opposition	0.26	0.44	0.00	1.00

1B. Relationship Scores for Different Types of Party Pairs

Variable: [*Dyadic rel. score for parties i,j*]	**Mean**	**Std. Dev**	**Min**	**Max**
Scores for coalition partners (N=60)	0.30	0.75	-1.41	3.14
Scores for other party pairs (N=326)	0.00	0.40	-2.36	2.60

1C. Relationship Scores for Election and Non-Election Periods

Variable: [*Dyadic rel. score for parties i,j*]	**Mean**	**Std. Dev**	**Min**	**Max**
Scores for national election periods (N=237)	0.06	0.47	-2.00	3.14
Scores for non-national election periods (N=149)	0.02	0.50	-2.36	2.89

Notes. The table reports descriptive statistics for the dependent and independent variables included in the specification given by Equation (1) in the paper. The variable definitions are given in the text. The reported values for the [*Dyadic relationship score for parties i,j*] variable are based on inter-party relationship scores computed over media reports from the twelve months prior to the surveys that we use to compute the mean perceived policy distances between parties.

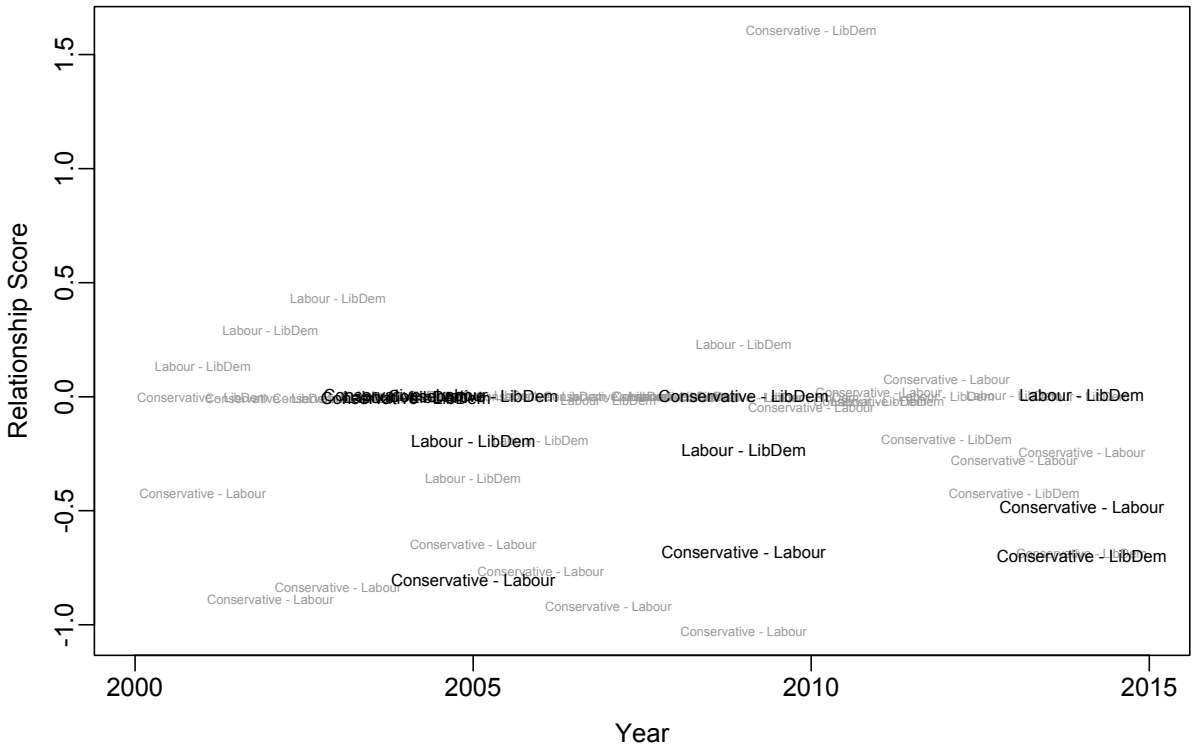
Table 2. Analyses of Perceived Distances between Parties' Left-Right Positions

	Mean Perceived Positions		"Sophia" Perceptions Measure	
INDEPENDENT VARS	Election Year Surveys (1)	Non-Election Year Surveys (2)	Election Year Surveys (3)	Non-Election Year Surveys (4)
Dyadic relationship score for parties i,j (*t*)	-0.61** (0.21)	-0.10 (0.31)	-0.58** (0.18)	-0.15 (0.25)
Manifesto-based distance between parties i,j (*t*)	0.63** (0.21)	0.78* (0.31)	0.44* (0.18)	0.52* (0.24)
i,j are coalition partners (*t*)	-0.46† (0.24)	-1.25** (0.34)	-0.32† (0.16)	-0.93** (0.26)
i,j are both in opposition (*t*)]	0.08 (0.28)	0.23 (0.39)	0.13 (0.23) 159	0.08 (0.29)
N	237	149	237	149
R^2	0.37	0.33	0.49	0.38
Adjusted R^2	0.25	0.16	0.39	0.21

** $p \leq .01$; * $p \leq .05$, † $\leq .10$, two-tailed tests.

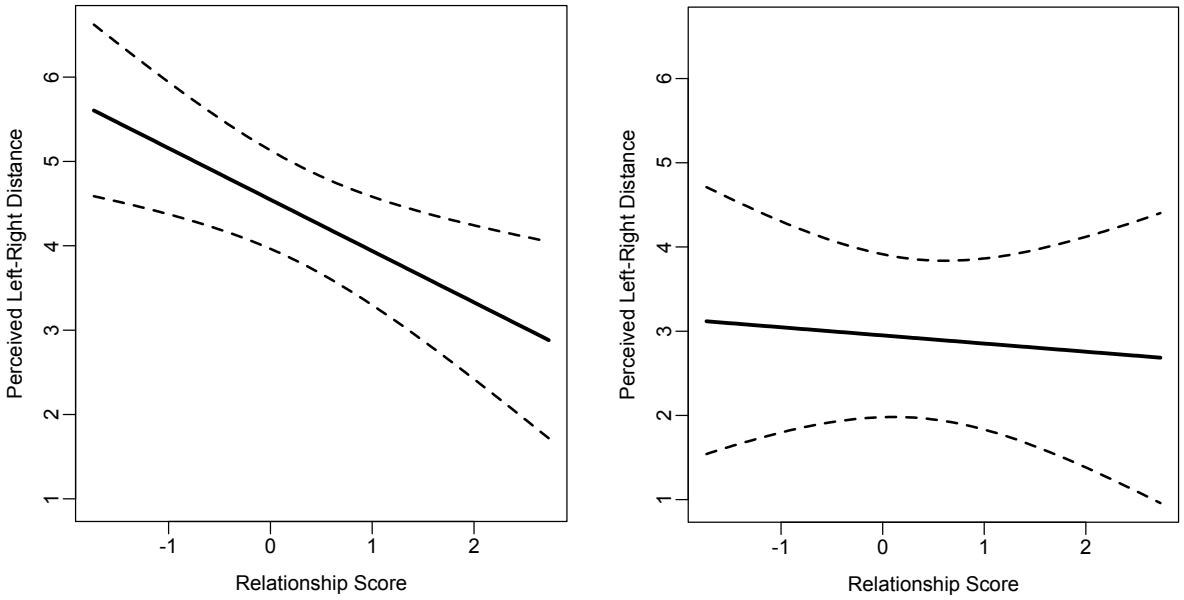
Notes. The dependent variable for the analyses in columns 1-2 is [*Perceived distance between parties i, j*], defined as the absolute difference between the survey respondents' mean Left-Right placements of the focal parties *i* and *j* on the 0-10 Left-Right scale. The independent variables are defined in the text. The dependent variable for the analyses in columns 3-4 is [*Perceived distance between parties i, j* – "Sophia"], defined as the absolute difference between the Fortunato, Silva, and Williams (2018) "Sophia" measure of perceived party positions, defined in the text. The top number reported in each cell is the unstandardized coefficient estimate, and the number in parentheses below that is the standard error on this estimate. The model also includes country-period fixed effects (not shown). The estimation uncertainty of the perceived party positions, the manifesto positions, and the relationship scores are taken into account.

Figure 1: Relationship Scores for the United Kingdom, 2001-2014



Notes. The figure displays estimated inter-party relationship scores for the Conservative, Labour, and Liberal Democratic parties, estimated based on media reports of cooperation and conflict between these political parties (and other actors). Grey: scores for each calendar year between 2001 and 2014. Black: scores created using event data from the twelve months prior to the four surveys in the United Kingdom we analyze (June 2004, August 2005, June 2009, June 2014). Higher scores denote more positive estimates of inter-party cooperation. The method used to compute these relationship scores is described in the text.

Figure 2: Predicted Effect of Relationship Scores and Coalition Status on Citizens' Perceived Distances between Two Parties



(a) Surveys Near National Elections (b) Surveys Not Near National Elections

Notes. The figures display the predicted effects of the [*Dyadic relationship score for parties i,j (t)*] variable on the [*Perceived distance between parties i,j (t)*] variable, for a party pair of coalition partners. Figure 2a displays computations for surveys conducted near national elections, while Figure 2b is for surveys at other points in the election cycle. Dashed lines indicate the 95 percent confidence interval. The computations are based on the coefficient estimates reported in columns 1 and 2 of Table 2.