Show Me Your Friends: A Survey Experiment on the Effect of Coalition Signals

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Abstract

Recent studies of coalition-directed voting suggest that what political parties say during a campaign can influence voter perceptions of the likelihood of certain coalitions and that this, in turn, may foster strategic voting in multiparty systems. Here, we expand this argument, and show that pre-election coalition signals also have the potential to influence voter perceptions of the parties themselves. By revealing their coalition preferences, parties provide information on where they stand on the political continuum. We test our argument using a survey experiment run during a regional election campaign in Spain in which we manipulated the coalition signals emitted by two parties: one, a traditional, social-democratic party and, the second, a new, liberal party. Results show how coalition signals can significantly influence the party's position and, ultimately, affect voters' stated probability of voting, especially in the case of the recently founded party.

Keywords: Coalition-directed voting; Parties' perceived positions; Coalition signals, Survey experiment

1 INTRODUCTION

During election campaigns in multi-party systems, it is common for parties to discuss their, and their rivals', likely post-election coalition behavior. In many European party systems, liberal parties will tend to lean either towards parties to their left or, rather, to the conservatives, while social-democrats will often seek out possibilities of building a coalition with other leftist parties, or moving towards the center and reach an agreement with the liberals. Not unusually, such coalition-seeking behavior becomes a salient issue during election campaigns in which a fragmented parliament with no single party majority is expected. In the 2010 UK general election, for instance, much debate centered on the possible coalition choices of the Liberal Democrats, and both the Conservative and Labour parties claimed that by voting for the Lib Dems, voters risked supporting a Labour/Conservative government. Similarly, debates about the possible coalition allies of the FDP and the SPD have dominated many electoral campaigns in Germany.

There are certainly good reasons why the question of coalitions is a salient one during election campaigns, since it has been shown to matter for voters, as expectations about post-election coalition formation can drive the strategic behavior of utility-maximizing voters in multi-party systems (Kedar, 2005; Duch et al., 2010). In this paper, we directly address the questions raised by this literature and argue that coalition signals can influence vote choice above and beyond a simple impact on voter expectations of government formation. It is our contention that these signals can, and often do, enter the voters' utility function through complementary channels, because they can have an effect on how they perceive the parties: expressing a willingness to favor a specific coalition partner over another can be processed by voters as an additional piece of information on where the party stands ideologically and change their perceived distance to the party, thereby affecting vote choice at the polls.

Our study makes a novel contribution to the field in at least two key questions. First, through an experimental design, it circumvents the causal identification problems faced by observational studies that have recently assessed the impact of coalition behavior on parties' images (e.g. Fortunato & Stevenson, 2013; Fortunato & Adams, 2015; Adams et al., 2016; Falcó-Gimeno & Fernandez-Vazquez, 2016; Spoon & Klüver, 2017). Second, all these studies

1

investigate the effects of coalition-building *post factum*, that is, once a government has been formed. Instead, we specifically focus on the effect of coalition signals sent during election campaigns on perceptions about parties, which should be of greater consequence as voters have yet to cast their ballots. Experimental designs have also been used to study whether and how pre-election coalition signals affect voters' strategic or coalition-directed voting (Goodin et al., 2008; Meffert & Gschwend, 2011; Gschwend et al., 2017), but the question remains as to which mechanisms are activated by coalition signals that can influence voting and, in particular, the one we propose here: the effect on parties' perceived positions. Our design will also allow testing for these mediated effects on vote choice.

In the very influential coalition-directed voting model proposed by Duch et al. (2010), the authors argue that the utility a voter *i* derives from a party *j* depends on a number of factors:

$$u_i(j) = \lambda \left\{ \beta \left(U - \sum_{n=1}^{N_{cj}} \left(x_i - Z_{c_{jn}} \right)^2 \gamma_{c_{jn}} \right) + (1 - \beta) \left[U - (x_i - p_j)^2 \right] \right\} + \Phi W_{ij} \qquad (1)$$

where x_i is the voter's ideological position, $Z_{c_{jn}}$ is the position of each possible coalition that party *j* might enter, with (perceived) probability $\gamma_{c_{jn}}$. As for party characteristics, p_j represents the party's ideological position, and W_{ij} is a vector of non-spatial attributes.

Duch et al. (2010) themselves argue that coalition signals shape the attractiveness of a party through coalition expectations ($\gamma_{c_{jn}}$): they affect the prospects of those coalitions the voter may (dis)favor. While this expectation is, of course, reasonable, we believe it in fact understates the importance of these signals. When parties signal their willingness to join a given coalition, they not only make that coalition more plausible in the eyes of voters. They also send information about themselves. Through these signals, parties reveal their political commitments, including their ideological position p_j, which also feed into Duch et al.'s (2010) utility function.

Therefore, in a context with, at least, some uncertainty as to where a party actually stands –as it is commonly the case (Fortunato et al., 2016)–, voters seeking to figure out the exact position of a party may rely on coalition signals. Specifically, we expect that a coalition signal indicating that a party has the intention to form a post-electoral government coalition with a party to its right (left) moves a voter's perceived position of the party to the right (left). More formally, we can expect that the perceived location of a party *j* that sends a coalition signal s_c

2

will depend on the previous perception of where the party stands (p_j) plus the average position of the rest of the signaled coalition partners $Z_{c_{j_n},-j}$ with respect to the party's placement. τ expresses the weight of the contribution of the coalition signal to the (updated) perception of the party location, and is expected to be a function, mostly, of the previous uncertainty on where the party stands, as well as the intensity of the coalition signal: $p_{j|s_c} = (1 - \tau)p_j + \tau Z_{c_{j_n},-j}$, which, rearranging, gives:

$$p_{j|s_c} = p_j + \tau(Z_{c_{j_n},-j} - p_j) \tag{2}$$

If we embed this prediction in the non-coalition part of model in equation 1, we can easily see why coalition signals can impact voters' behavior: not only for coalition-related reasons, but also through the change in the perceived ideological position of the party.

2   IDENTIFICATION STRATEGY: A SURVEY EXPERIMENT

Identifying the causal impact of a coalition signal requires comparing what happens when an actual signal is sent out in one direction or another, with what would have happened in the absence of such a signal (Decker & Best, 2010). Clearly, in real world settings the counterfactual cannot be observed (Meffert & Gschwend, 2012). For this reason research has resorted to experimental designs in which the treatment —the sending out of a coalition signal— can be manipulated holding all other variables constant.[1] In this paper we follow this strategy, but we seek to balance internal and external validity considerations by embedding our experiment in a survey to the general population, fielded in the context of a real election campaign.

2.1   The context

We used the 2015 campaign for the regional government of Valencia, Spain, as our research setting, as it allowed us to treat the coalition signals of two different parties in a highly realistic manner. After 20 years of government by the conservative Popular Party, they were generally expected to lose about half of their votes amid a series of corruption scandals, economic troubles and a severe austerity program. All pre-election polls pointed to a highly fragmented regional

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[1] An alternative strategy employed by the literature is counterfactual simulation, as pursued by (Linhart, 2009).

parliament with several plausible post-election coalitions as the likely outcome of the vote.[2]

Much of the coalition-related discussion during the campaign revolved around a possible leftist alliance between the Socialists and the two left-wing parties (*Compromís* and *Podemos*). However, the Socialists deliberately avoided being too explicit about this possibility, and considered alternative options as well. The emerging center-right liberal party *Ciudadanos* (Cs),[3] who the media expected to enter into an eventual agreement with the conservatives, was also intentionally ambiguous about its intentions during the campaign. Figure 1 represents the Valencian party system and shows that, prior to the election, the two parties that might have entered into agreements in both directions were the social-democrats and the liberals.

Figure 1: The Valencian 2015 party system

Left	Social-democrats	Liberals	Conservatives
EUPV Podemos Compromís	PSPV-PSOE	Ciudadanos	PP
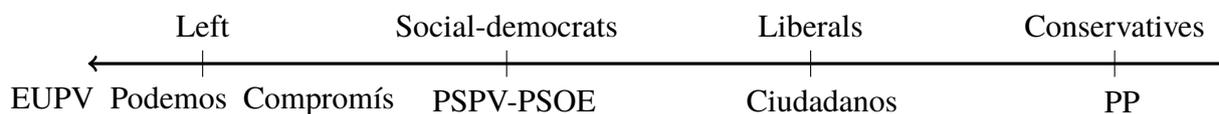
2.2 Experimental design

Taking advantage of this uncertainty regarding the coalition choices, we designed an experiment in which we manipulated suggestions about the favored coalition strategy of two specific parties: the established social-democratic PSOE and the new liberal Cs. We chose these two because both offered the possibility of making credible statements about a range of post-election coalition preferences, including, no coalition; a coalition to their right; or a coalition to their left. This choice allows us to fully manipulate the coalition signals, but of course has consequences for the scope conditions of our findings, as they refer to a case in which the senders had alternative potential coalition options in opposite directions.

For each of the two parties, we presented respondents with a randomly varying vignette in which political analysts suggested that the party was either not willing to form any coalition

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[2] After the election, the PP did indeed fail to obtain an absolute majority. In fact, no two parties alone could command more than 50% of the seats: any majority coalition required at least three. Negotiations among the leftist parties started immediately after the election, although the socialists also considered the possibility of an alliance with the liberals and the abstention of the conservatives to bypass the leftist demands. In the end, a leftist coalition was formed.

[3] The term liberal here is used in the classical liberalism sense, rather than referred to progressivism.

4

Table 1: Treatment headlines

	Liberals	Social-Democrats
Rule out	Analysts suggest that Ciudadanos will not make any agreement after the election	Analysts suggest that the PSPV-PSOE will not make any agreement after the election
Right-leaning coalition	Analysts suggest a possible agreement of Ciudadanos with the PP	Analysts suggest a possible agreement of the PSPV-PSOE with Ciudadanos
Left-leaning coalition	Analysts suggest a possible agreement of Ciudadanos with the PSPV-PSOE	Analysts suggest a possible agreement of the PSPV-PSOE with Compromís, EUPV and Podemos
Control	The Valencian Parliament, renewed	

after the election (*Rule Out* treatment), or that it was intending to join a coalition to its right (Cs being the right-leaning partner for the PSOE, and the PP the rightist partner for Cs) or to its left (the PSOE being the leftist partner for Cs, and a combination of left-wing parties for the PSOE). The experiment also included a control group that received a placebo text simply stating that there would be a regional election, meant to control for the regional election priming effect of the treatments. In Table 1 we present the basic structure of the 3×2 design and placebo, resulting in seven different treatments. The table presents the headlines of the vignettes, while the original vignettes and complete texts (original and translated) can be consulted in the online appendix F.

The vignettes were designed so as to make a credible claim that one of the two parties would favor a specific coalition strategy after the election. To avoid outright deception, the claim was attributed to undefined political analysts, but presented as being based on the party representatives' line of thinking. While this is not a signal sent directly by the party, it can fit in a non-strict definition of a coalition signal, since they can provide "reliable clues about which potential coalition partners a party implicitly prefers" (Decker & Best, 2010, 168).

The experiment was fielded during the May 24th 2015 regional election campaign (May 12-18) to an on-line sample of 1,003 respondents from the Valencia region (143 per experimental condition, on average), drawn from an on-line panel by the company Netquest, using age and education quotas. Details on the composition are discussed in the online appendix B.

After the treatment was administered, we asked our respondents about the perceived left-right position of the parties (in a 0-10 scale) and the declared probability of voting for each party in the upcoming regional election (Propensity To Vote, PTV), ranging from 0 ('I would never vote for this party') to 10 ('I am sure I will vote for this party').

3 Results

First, we assess whether our treatments were effectively able to shift post-election coalition expectations, as expected in Duch et al.'s (2010). Reassuringly, results show that our vignettes significantly affected the expectations of post-election coalition behavior of the liberals (χ^2=67.99, p<.001), and had a more modest effect, though still statistically significant, for the socialist party (χ^2=28.22, p<.001). We discuss these effects in detail in the online appendix C.

Second, in Figure 2, we turn to the analysis of the effects of the coalition signals on the perceived left-right placement of parties. For the liberals, the suggestion that it might form an alliance with the conservative party does have the expected effect. On average, it is placed almost half a point further to the right on the 0-10 left-right scale with respect to the placebo condition. In contrast, ruling out any coalition or suggesting an agreement with the social-democratic party does not make any difference with respect to the control group. For the social-democrats, in turn, we find a similar pattern: suggesting a coalition towards its right moves their perceived position almost half point to the right (significant only at the 90% level). Signaling a left-wing coalition does not seem to produce an update in respondents' priors with respect to the Socialists' ideological stance. In this case, also, ruling out any coalition whatsoever has an almost significant effect on the party's perceived position, moving it to the right compared to the position reported by the control group, perhaps because of the strong prior held by most voters that they would form a left coalition.

Some coalition signals affected the perceived location of the parties, while others did not. A detailed discussion on why this might be the case is beyond the scope of this paper, but we can outline some conjectures. First, pre-treatment effects might make some of our treatments stronger/more credible. Second, signals towards coalitions that are closer to where the party stands *a priori* should have weaker effects. And third, coalition signals might have an effect on non-spatial elements of the party image, such as the extent to which citizens perceive it to be an office-seeking, as opposed to policy-seeking agent. We have some evidence (discussed in the online appendix D) that, indeed, the coalition signals were also able to move perceptions of the parties' priorities in terms of office versus policy considerations.

Certain coalition signals, therefore, seem to exert a significant effect on at least one element

Figure 2: Ideological Placement (90-95% CIs, marginal effects vs placebo)
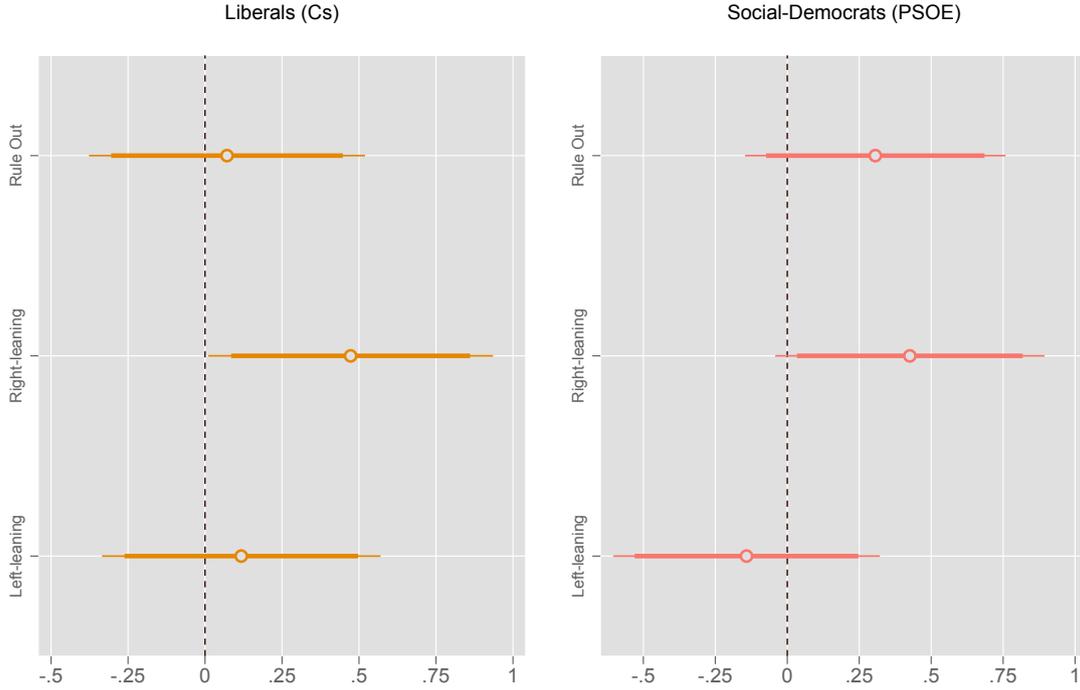
of the function that allow voters to evaluate from which party they can derive greatest utility, in accordance with Duch et al.'s (2010) CDV model. But do these effects in turn shape voters' willingness to vote for the party sending the signal? Through their impact on the perceived position of (and distance to) the party, these signals should also affect vote choice in elections. Therefore the question is really whether or not mediated effects of coalition signals exist.

To test this idea we ran a causal mediation analysis in which two models were estimated. First, we take the mediator as the dependent variable (in our case, the distance $d_{ij} = (x_i - p_j)^2$ that weighs in the utility function). Specifically, $d_{ij} = \alpha_2 + \beta_2 s_{ijc} + \epsilon_{2i}$, where s_{ijc} refers to the treatment variable (the coalition signal in our case). Then, predicted values are generated at two different values of the treatment: $s_{ijc} = 1$ and $s_{ijc} = 0$, which gives $\hat{d}_{ij}(1)$ and $\hat{d}_{ij}(0)$, respectively. A second model is estimated where the dependent variable is the actual outcome of interest (in our case, the PTV for the sender of the signal): $PTV_{ij} = \alpha_3 + \beta_3 s_{ijc} + \theta d_{ij} + X_i + \epsilon_{3i}$, where X_i is a set of relevant covariates (in our case, party identification, political sophistication, gender, age, and age squared). Then, PTV_{ij} is predicted at $s_{ijc} = 1$, first setting $d_{ij} = \hat{d}_{ij}(0)$ and then $d_{ij} = \hat{d}_{ij}(1)$. The average difference of these two predictions is, according to Imai et al. (2011), a consistent estimate of the average causal mediation effect (ACME) of the treatment.

7

Table 2: Average Causal Mediation Effects on PTV

| | Lib (Cs) | | SocDem (PSOE) | |
	Left-leaning	Right-leaning	Left-leaning	Right-leaning
Position (p_j)	-0.007	0.592**	0.058	0.054

*** p<0.01, ** p<0.05, * p<0.1

In our case, we expect a positive ACME of the coalition signal through p_j, but only in the case of those for whom the signaled coalitional behavior should make the party a more attractive option, that is, for voters who are on the same side of the ideological spectrum as the signal. Therefore, the ACME of a left-(right-)leaning signal is calculated for those to the left (right) of the party.[4] Indeed, as Table 2 shows, a signal indicating that the liberal party is likely to reach a post-electoral agreement with the conservatives, appears to give them an electoral boost among right-wing voters by moving the party's perceived ideological position to the right.[5]

In order to provide an illustration of the substantive importance of this result, we can calculate the total effect of the right-leaning signal on the PTV for Cs. It would have a negative impact of -0.74 points on the PTV for those voters located to the left from Cs, and a positive impact of 1.25 points for those located to the right of the liberals. Although translating a PTV change into a change of actual vote shares is far from straightforward and requires a strong set of assumptions, for purely illustrative purposes we can present an approximate figure. If we regress a dichotomous variable, taking a value of 1 if the respondent's declared intention is to vote for Cs and 0 otherwise, on the PTV, we obtain an average marginal effect of about 5.7 percentage points for each additional point of PTV. Therefore, a right-leaning signal from Cs would imply roughly a loss of 4.2 percentage points among the voters located to its left, and a gain of 7.1 among voters to its right. These figures, in a fragmented scenario, are potentially highly relevant in terms of viable coalitions and the likelihood of participating in government.

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[4] To avoid using post-treatment information to define a pre-treatment condition, we took the average of attributed positions to Cs and PSOE in the placebo group (6.2 and 3.9, respectively) as the reference points to consider a voter left-right placement to the right or to the left of the party.

[5] The analyses have been run with the R package mediation (Tingley et al., 2014) and models estimated through OLS. Further details, robustness checks and sensitivity analyses can be found in the online appendix E.

4 Conclusions

According to the findings presented in this paper, parties should be careful when suggesting a specific post-election coalition behavior during the campaign, as it might not only make the suggested choice more likely to the eyes of the voters, but it could also influence how the party itself is perceived by voters. Our results show that our experimental manipulations of pre-election coalition signals were able, not only to affect respondents' coalition expectations, but also had an impact on the perceived ideological position: a right-leaning coalition signal shifted both parties' perceived ideological stances to the right (around 0.5 points on a 0-10 scale). We have also shown that coalition signals can enter the vote decision through this mechanism.

Several questions remain open. First, coalition signals might matter differently for established and new parties, depending on the prior information about their preferences voters have. Our results, that show a greater effect for the new party, point in that direction, but of course we are not able to make any general statement. Second, coalition signals might have effects on other party images, beyond their influence on the perceived location in the left-right dimension. They could be interpreted by voters as signals on the relative salience of different issues for the party, and could also reveal information on the party's willingness to trade off policy concerns for office opportunities.

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