# **RESEARCH NOTE**



# Assessing the relative influence of party unity on vote choice: Evidence from a conjoint experiment

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(Received XYZ; revised XYZ; accepted XYZ; first published online XYZ)

### Abstract

Observational studies and anecdotal evidence suggest that party unity improves a party's electoral performance. Yet, due to a lack of experimental evidence, the causal standing of these findings remains unclear. Moreover, party unity manifests in various ways and we do not know how much different types of party unity affect the vote. Relying on a conjoint experiment implemented in a probability-based survey of the German population, our study unveils the distinct causal effect of different forms of party unity on vote choice. We further establish that appearing united can compensate for substantive policy distances between parties and voters. These findings have important implications for our understanding of how citizens vote and how intra-party politics affects the political representation of citizens in democracies.

Keywords: party unity, vote choice, conjoint experiment

What are the electoral consequences of conflict within a party? While ample scholarship on intraparty unity emphasizes its importance for party and electoral behavior (e.g., Lehrer and Lin 2020; Ceron 2015a; Greene and Haber 2015), the causal standing of these findings remains elusive as experimental evidence is missing. Furthermore, party unity is frequently simplified to be a unidimensional phenomenon. The various ways in which intra-party dissent manifests itself empirically are neither properly theorized nor well understood. Theoretical arguments on party unity are hardly specific enough to derive precise expectations about the distinct effect of different manifestations of party unity. This theoretical coarseness, the utilization of different measurement approaches, and

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the lack of causal evidence in general contribute to inconsistent results regarding the effect of party unity on vote choice in published research (Close and Gherghina 2019).

Against this background, this research note seeks to improve upon the current state of the literature in three important ways. First, we provide experimental evidence for the effect of party unity on the vote. Second, we compare the effect size of party unity to other important determinants such as the ideological distance between voters and parties. Third, we investigate to what extent conclusions drawn about the consequences of intra-party dissent depend on its operationalization.

Different arguments have been presented in the literature to explain how intra-party conflict depresses a party's vote share (e.g., Jung and Somer-Topcu 2020; Lehrer and Lin 2020; Greene and Haber 2015). Empirically, however, only observational studies exist that fail to provide causal evidence for the link between party unity and vote choice. We not only causally investigate the electoral consequences of intra-party conflict but also three of its manifestations that empirical research often employs as general measures of party unity: legislative voting behavior, internal critique of the party leadership, and the behavior of delegates at party congresses.<sup>1</sup>

We implement a conjoint experiment in a probability-based survey of the German population. The experimental design not only permits the derivation of causal statements. It also allows us to compare the effect sizes of different forms of party unity to one another as well as to the effect of ideological distance. The results reveal that internal disagreement curtails a party's electoral fortunes. We also find that the electoral consequences of intra-party conflict differ depending on the way the dissent is displayed. While critique from actors within the party has a negligible impact, incohesive voting behavior in parliament and especially publicly displayed conflict at party congresses decrease voters' likelihood to vote for a party. Finally, party unity is a relevant factor in the calculus of voting that can compensate for some degree of ideological distance.

The intra-party unity dimensions included in the experiment mimic operationalizations that are often used in observational research: Researchers often turn to legislative voting behavior to operationalize intra-party unity. Even though party discipline is usually strong in parliamentary systems, so that parliamentary voting cannot be equated with the sincere expressions of individual preferences (e.g., Carey 2007), diverging voting patterns or more subtle signals such as abstentions are observable indicators divisions within parties (Ceron 2015a).

<sup>1.</sup> In accordance with previous research, we are agnostic whether intra-party conflict stems from policy differences, personal disputes, or both.

Another distinct manifestation of intra-party dissent is openly voiced critique of the party leadership. In principle, different actors – including rank-and-file members, faction leaders, or former party leaders – may openly voice criticism at any time. The availability of social media facilitates the expressions of criticism toward the own party leadership or the parties' policies without media gatekeeping. Current or former party elites may also utilize traditional forms of public communication such as interviews or press releases to publicly state criticism. Both classical communication strategies and social media statements are used in empirical studies of party unity (Ceron 2017; Sältzer 2020; Somer-Topcu, Tavits, and Baumann 2020).

Finally, party congresses provide an excellent channel to investigate a party's internal cohesiveness. Speeches at party congresses provide a relatively ungated stage for party members to express their concerns with the party leadership and the party's policy platform. Given that national party congresses are among the most important intra-party activities and regularly receive extensive media coverage, the electorate is exposed to information on the proceedings of national party congresses (e.g., Ceron 2015a; Ceron and Greene 2019; Greene and Haber 2016).

#### 1. Data & Research Strategy

To causally identify links between (different manifestations of) party unity and vote choice, and to relate their sizes to one another as well as to other determinants of the vote, we conduct a choice-based conjoint experiment (Ben-Akiva, McFadden, and Train 2019; Hainmueller, Hopkins, and Yamamoto 2014). This design allows us to simultaneously estimate the causal effects of different dimensions of party unity on vote choice. Furthermore, since effect sizes are expressed on a common scale, we can directly compare the influence of different aspects of party unity to one another and to other relevant factors such as ideological distance or different candidate characteristics. The survey experiment was embedded in the November 2019 wave (Blom et al. 2020) of the German Internet Panel (GIP), which is based on a probability-based sample of the German population (Blom, Gathmann, and Krieger 2015). The combination of high-quality survey data and a conjoint experiment enables us to draw conclusions about real-world voter behavior (Hainmueller, Hangartner, and Yamamoto 2015).

In our experiment, respondents receive randomly varied information about various characteristics of two fictional parties competing against each other in a hypothetical electoral contest. To

# 4 Roni Lehrer et al.

Dimension & Attribute	Levels
Ideology	
Ideological distance	0, 1, 2, 3, 4
Unity	
Critique of party leadership	None, Rank-and-file members, Former party leader, Party factions
Parliamentary voting behavior	United, Divided
, ,	
Behavior at party congress	United, Neither united nor divided, Divided
Ambiguity	
Reform clarity	High, Low
Party	
Party role	Junior coalition partner, PM party, Opposition party
Candidate	
Gender	Female, Male
٨٣٥	29 years F6 years 74 years
78c	so years, so years, ry years
Occupation	Employee, Employee (retired), Entrepreneur, Lawyer,
	Politician , Activist

#### Table 1. Attributes and attribute levels

ease the cognitive burden for respondents, we present the information on the two parties in a table. Respondents are asked to choose one of the parties without an explicit "none"-option (forced-choice design). Yet, they are able to skip the question after an error message asks them to state their choice.<sup>2</sup> Each respondent consecutively evaluates ten party pairs which is in line with corresponding recommendations for data quality (e.g., Bansak et al. 2018).<sup>3</sup>

While we provide information on several features of the hypothetical parties, our primary interest lies in the causal effect of party unity and its manifestations that appear in empirical research. Consequently, we specify three party unity attributes and randomly vary their levels. Table 1 shows all attributes and their respective levels. Specifically, the study separates the following dimensions (with attribute levels in brackets): First, critique toward the party leadership (none, rank-and-file members, former party leader, party faction). This mimics operationalizations that are used in

<sup>2.</sup> We present all survey items' full wording in Online Appendix 1.

<sup>3.</sup> In Online Appendix 4, we present evidence from a quality check that suggests that respondents understand and participate in the experiment as expected.

research on party factions, for instance by using social media data (e.g., Ceron 2012; Sältzer 2020). Second, parliamentary voting (united, divided). This kind of approach resembles approaches in legislative studies (e.g., Sieberer 2006; Ceron 2015a). Third, behavior at party congress (united, neither united nor divided, divided) which stems from the literature on party congresses (e.g., Greene and Haber 2016; Ceron and Greene 2019).

We also randomly vary several additional party features. Foremost, we acknowledge the predominant role of ideological distance for voting (e.g., Franchino and Zucchini 2015) and assign each fictional party one of five ideological positions (left, center-left, center, center-right, right). Since Lehrer and Lin (2020) report that vote choice is not only affected by party unity on its own, but also jointly with a party's policy ambiguity, we include clarity of reform proposals (high, low). To test for incumbency effects that may be particularly relevant in our experiment in which partisanship is muted (Lim and Snyder Jr 2015), we manipulate a party's current role (junior coalition party, prime minister's party, opposition party). We also consider the party's top candidate characteristics by varying gender (female, male), age (38 years, 56 years, 74 years), and professional experience (activist, employee, retired employee, lawyer, politician, entrepreneur). Finally, to avoid generating unrealistic profiles, we restrict specific combinations of candidate profiles. This refers to scenarios where a 74 years old top candidate still works as an employee, or where a 38 or 56 years old candidate is already retired.<sup>4</sup>

The research design mimics German elections. Similar to *Bundestag* elections, respondents choose between parties using information on parties' policy stances, incumbency status, and their *Spitzen-kandidaten* (Debus, Stegmaier, and Tosun 2014). To facilitate the identification of causal effects, however, the experiment also mutes effects of partisanship, limits choices to two parties and presents information to voters in a way that media usually do not use. Germany serves as an interesting starting point to study party unity since its parties are known to be home to party factions. At the same time, these factions do not dominate party politics as they do elsewhere (Ceron 2015b; Sieberer 2006). Interestingly, the experiment happened to be conducted when Germany's Social Democrats, at the time a junior coalition partner, chose a new party leadership by membership vote. Hence, Germans may have been more sensitive to intra-party division at the time. These aspects

<sup>4.</sup> Further, in order to avoid a potential bias due to the sequence in which the attributes are displayed, we randomize their order for each respondent (e.g., Hainmueller, Hopkins, and Yamamoto 2014). We hold the order constant within respondents and across tasks.

somewhat limit the experiment's external validity which we further discuss in the conclusion.

To discern the effect of each attribute, we estimate a conditional logistic regression model (Mc-Fadden 1974) and compute average marginal component effects (AMCE) as well as predicted vote probabilities.<sup>5</sup> The levels of each attribute are represented by indicator variables. A party's behavior at the party congress, for instance, is modeled as two indicator variables, one for "neither united nor divided" and one for "divided", while "united" serves as the reference category. Even though the experiment randomizes party ideology, we expect that ideological distance to the respondent's ideal position and not ideology per se matters. To translate party ideology into ideological distance, we rely on respondents' self-placements on an ideological left-right scale, which was collected two months prior to the experiment in GIP Wave 43 (Blom et al. 2021). We use these self-placements to compute the ideological distance between every respondent and the hypothetical party.<sup>6</sup>

Upon list-wise deletion, the sample size totals 3, 687 respondents. Because respondents perform multiple choice tasks, our analysis includes 26, 761 choices and standard errors are clustered by respondents to account for this.

### 2. Results

### 2.1 The effect of party (dis)unity on the vote

Figure 1 shows the attributes' AMCEs.<sup>7</sup> These can be interpreted as the expected change in the probability to choose a given party when an attribute value is compared to the reference category (Hainmueller, Hopkins, and Yamamoto 2014). In Figure 1, the reference levels are indicated by the black dots at zero.

Unsurprisingly, by far the strongest predictor of vote choice is ideological distance. A party that has an ideological distance of one unit to the respondent, e.g., a center-right party's distance to a centrist respondent, is on average 10.3 percentage points less likely to be chosen than a party with a zero distance (the 95 % confidence interval covers [8.9; 11.7]). When the ideological distance equals two units, e.g., a right party and a centrist voter, its effect already exceeds any other attribute's effect. This result confirms the predominant role of ideological distance for voting.

<sup>5.</sup> In Online Appendix 3, we demonstrate that results are virtually identical when using the linear implementation as in Hainmueller, Hopkins, and Yamamoto (2014).

<sup>6.</sup> Self-placement were measured on an eleven-point scale. We map them to the five categories of the experimental design as follows: Self-placements in categories 1 and 2 are considered equivalent to a left party's ideology, 3 and 4 equivalent to the center-left, 5, 6 and 7 equivalent to the center, 8 and 9 equivalent to the center-right, and 10 and 11 equivalent to the right.

<sup>7.</sup> The full regression table is available in Online Appendix 2.



**Figure 1.** Average marginal effects of different attributes. Estimates are based on a conditional logistic regression model with clustered standard errors; bars represent 95% confidence intervals. The points without horizontal bars represent the reference categories.

Regarding the possibility of direct effects of different manifestations of party unity, Figure 1 reveals the existence of heterogeneous causal effects across different dimensions of party unity. Overall, internal critique from party actors has almost no effect on the probability that a respondent chooses the party. In comparison to no internal critique, there is a small negative effect when critique is voiced by internal party factions (-1.8 percentage points [-0.4; -3.2]) or former party leaders (-1.5 percentage points [-0.7; -2.9]). The estimates, however, also suggest that there is no difference between the complete absence of critical comments and critique from rank-and-file members.<sup>8</sup>

In contrast, we find that incohesive voting behavior of a party's parliamentary group harms the party electorally. All else equal, a party failing to ensure united voting patterns by its parliamentary group is on average 5.7 percentage points [4.6; 6.7] less likely to be chosen by voters.

<sup>8.</sup> In Online Appendix 5, we present evidence that our conclusions are not biased because the Critique on the party leadership dimension may be harder to understand than other party unity dimensions.

#### 8 Roni Lehrer *et al.*

Finally, our experiment identifies a party's behavior at its congress as the most decisive dimension of party unity with respect to vote choice. A party that successfully manages to convey a cohesive image at its congress to voters is able to obtain an electoral advantage whereas parties that engage in internal fights will be punished. Open disagreements at party congresses harm parties with a loss in vote probability of 14.7 percentage points [13.5; 15.9].

Overall, we find clear support for the expectation that intra-party unity boosts a party's electoral performance. The evidence is particularly strong when party unity becomes visible in party congress behavior and to a lesser degree in parliamentary voting.

Besides these main effects of interest, the experiment further reveals the effcets of several additional features. With respect to the top candidate, for example, we corroborate previous findings that voters prefer younger and female candidates with a primary occupation as employees (e.g., Carnes and Lupu 2016). Moreover, our experiment clearly supports observational evidence suggesting that voters punish parties for low reform clarity, i.e. vague policy proposals (Lehrer and Lin 2020).

#### 2.2 How important is party unity for electoral competition?

To compare the effect sizes of the different party unity manifestations to ideological distances and to determine when party unity is pivotal for vote choice, we use the estimates from our conditional logistic regression model to simulate hypothetical electoral contests. Consider a voter who is faced with a choice between two hypothetical parties, Party 1 and Party 2. Both of these parties are identical, except that Party 1 is ideologically somewhat closer to the voter than Party 2. The parties' full characteristics are given at the top of Figure 2. Following the reasoning of spatial voting, the model predicts a probability of 60.3%[60.1; 60.7] that the hypothetical voter chooses Party 1 which is ideologically closer (see the top plot in Figure 2).

Now imagine that Party 1 competes with Party 3 which manages to present itself as united at its party congress but is otherwise identical to Party 2. In particular, it also positions a unit away from the voter, is divided in parliamentary voting, and its factions voice critique toward the leadership. If only ideological distance mattered to the voter, we would expect Party 1 to prevail because ideological distances did not change. However, because party unity matters, Party 3 is more likely to be chosen. In fact, Party 1 is now chosen by the hypothetical voter with only 45.3%[45.3; 45.5] probability, which means that we expect the voter to choose Party 3 over Party

	Party 1	Party 2	Party 3	Party 4
Ideological Distance	0	1	1	1
Critique of Party Leadership	Party factions	Party factions	Party factions	None
Parliamentary Voting	Divided	Divided	Divided	United
Behavior at Party Congress	Divided	Divided	United	Neither united nor divided
Clarity of Reform Proposals	High	High	High	High
Party Role	PM party	PM party	PM party	PM party
Candidate's gender	Female	Female	Female	Female
Candidate's age	38 years	38 years	38 years	38 years
Candidate's occupation	Employee	Employee	Employee	Employee



Figure 2. Hypothetical competition scenarios.

1 (center plot in Figure 2).

A similar pattern emerges when Party 1 instead competes with Party 4. This party produces no internal critique, exhibits unified parliamentary voting and neither a divided nor a united behavior at its party congress. Otherwise it is like Party 2. As the bottom plot in Figure 2 shows, in an electoral contest between these parties, Party 1 is roughly as unlikely to be chosen as in its competition against Party 3 (42 % [41.8; 42.6]).

These examples present causal evidence that party unity can compensate for greater ideological distance which may, for example, be the ideological difference between center-left and center. They also reveal that while party unity with respect to parliamentary voting and critique of the party

leadership may exert rather small effects on voting probabilities, their joint effect is similar in strength to a change in party congress behavior from neither united nor divided to fully united.

#### 3. Additional results: Simulate your own electoral competition

Overall, our experimental design gives rise to 21, 600 distinct party profiles and 466, 560, 000 possible party pairings. To facilitate the analysis of interesting hypothetical electoral competitions despite the large number of potential pairings, we provide a free simulation tool that allows researchers to vary all dimensions, and investigate how the predicted election outcome changes when amending one or several distinct attributes. The simulation tool is available online at https://party-unityconjoint.shinyapps.io/simulation/ and requires no technical or statistical knowledge. Effectively, it operates along the lines demonstrated above: Users specify hypothetical parties with specific attribute configurations, and the tool simulates an electoral contest between them by using the results from the regression analysis.

Suppose we are interested in learning whether perfect party unity can compensate for more than a unit of distance on the five-point scale of policy distance. To do so, we would specify two parties that only differ in their party unity and their ideological distance to the voter. One party is ideologically congruent with the voter, yet, fully divided (internal critique from party factions, divided in parliamentary voting and at the party congress), while the other party is perfectly united (no internal critique, united in parliamentary voting and at the party congress), yet, positions two units away from the voter. We present the corresponding results in Online Appendix 6. In particular, we show that even the highest levels of party unity cannot compensate for more than a single unit on a five-point scale of policy distance.

Similarly, we find that in the most extreme scenario, an all united party (no internal critique, united in parliamentary voting and at the party congress) is roughly 2.5 times as likely to be chosen than an all divided party (internal critique from party factions, divided in parliamentary voting and at the party congress).<sup>9</sup>

We strongly encourage researchers to think of novel attributes combinations that are meaningful to their research questions, and to use the simulation tool to gain relevant insights.

<sup>9.</sup> The other candidate and party characteristics are specified as follows: The candidate is female, 38 years old, and an employee. The party is a junior coalition partner, its reform proposals have high clarity, and it is ideologically congruent to the voter.

### 4. Conclusion

Using a conjoint experiment, this note establishes a causal relationship between party unity and vote choice. Internal dissent decreases a party's electoral performance. It also reveals that party unity can compensate for ideological distance, however, this effect is limited as spatial considerations clearly dominate vote choice. Finally, we find that the electoral consequences of intra-party conflict differ across distinct dimensions of party unity. While publicly stated critique from party actors has a negligible impact, incohesive voting behavior in parliament and especially publicly displayed conflict at party congresses decrease voters' likelihood to vote for a party.

The experimental evidence presented here has important implications for political representation in democracies. We find that parties face strong electoral incentives to act in unison and appear united (Greene and Haber 2015). Viewed from a normative perspective, this points to a trade-off parties need to manage: Parties are supposed to be deliberative institutions in which critical voices are raised and leaders are held accountable (Wolkenstein 2016). At the same time, our findings suggest that parties have strong electoral incentives to not appear divided in public. Future research will need to study whether and how parties address this challenge.

Further, the results show that the effect of party unity depends on how it is operationalized. This has direct implications for the empirical study of party unity because it has, up until now, often singled out a party unity dimension to measure it (Close and Gherghina 2019). Our findings suggest that results may not be robust to the choice of the measurement approach. This also highlights the necessity to improve the theoretical foundation to allow for the derivation of fine-grained expectations regarding the more subtle effects of party unity.

While our experimental design allows us to uncover the causal effect of party unity on vote choice, it abstracts from several important aspects which future research should scrutinize: First, while the experiment establish a causal relationship, it is not able to reveal the causal mechanisms underlying the link between party unity and vote choice. Second, by prompting respondents with specific levels of party unity as part of the conjoint design, we are unable to uncover any effect perceptions of party unity may have (Plescia, Kritzinger, and Eberl 2020). Third, we conducted the experiment within a panel survey in Germany at a time of potentially heightened sensitivity towards party unity. Hence, future research should not only confirm our findings in other electoral contexts but also with respondents who do not regularly answer surveys on political items. Finally,

the experiment abstracts from actual German elections in multiple ways, including a choice between two parties, the omission of party labels, and a presentation of information on parties that does not match the actual ballot. We suspect that these aspects limit the experiment's external validity, yet, we do not fully know to what extent. Therefore, we call on scholars to further investigate the relationship between party unity and vote choice to develop a more sophisticated understanding of this important nexus.

#### References

- Bansak, Kirk, Jens Hainmueller, Daniel J. Hopkins, and Teppei Yamamoto. 2018. The Number of Choice Tasks and Survey Satisficing in Conjoint Experiments. *Political Analysis* 26 (1): 112–119. ISSN: 1476-4989. https://doi.org/10.1017/pan. 2017.40.
- Ben-Akiva, Moshe, Daniel McFadden, and Kenneth Train. 2019. Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis. *Foundations and Trends in Econometrics* 10 (1-2): 1–144. ISSN: 1551-3084. https://doi.org/10.1561/0800000036.
- Blom, Annelies G., Marina Fikel, Sabine Friedel, Jan Karem Höhne, Ulrich Krieger, Tobias Rettig, Alexander Wenz, and SFB 884 'Political Economy Of Reforms', Universität Mannheim. 2020. German Internet Panel, Welle 44 (November 2019), https://doi.org/10.4232/1.13614.
- \_\_\_\_\_. 2021. German Internet Panel, Welle 43 Core Study (September 2019), https://doi.org/10.4232/1.13673.
- Blom, Annelies G., Christina Gathmann, and Ulrich Krieger. 2015. Setting Up an Online Panel Representative of the General Population. *Field Methods* 27 (4): 391–408. ISSN: 1525-822X. https://doi.org/10.1177/1525822X15574494.
- Carey, John M. 2007. Competing Principals, Political Institutions, and Party Unity in Legislative Voting. *American Journal* of Political Science 51 (1): 92–107. ISSN: 1540-5907.
- Carnes, Nicholas, and Noam Lupu. 2016. Do voters dislike working-class candidates? Voter biases and the descriptive underrepresentation of the working class. *The American Political Science Review* 110 (4): 832. ISSN: 00030554.
- Ceron, Andrea. 2012. Bounded oligarchy: how and when factions constrain leaders in party position-taking. *Electoral Studies* 31 (4): 689–701.
- ———. 2015b. The politics of fission: an analysis of faction breakaways among italian parties (1946–2011). British Journal of Political Science 45 (1): 121–139.
- -------. 2017. Intra-party politics in 140 characters. *Party Politics* 23 (1): 7–17. ISSN: 1354-0688. https://doi.org/10.1177/ 1354068816654325.
- Ceron, Andrea, and Zachary Greene. 2019. Verba volant, scripta manent? intra-party politics, party conferences, and issue salience in france. *Party Politics* 25 (5): 701–711.
- Close, Caroline, and Sergiu Gherghina. 2019. Rethinking intra-party cohesion: towards a conceptual and analytical framework. *Party Politics* 25 (5): 652–663.
- Debus, Marc, Mary Stegmaier, and Jale Tosun. 2014. Economic voting under coalition governments: evidence from germany. Political Science Research and Methods 2 (1): 49–67.

- Franchino, Fabio, and Francesco Zucchini. 2015. Voting in a multi-dimensional space: A conjoint analysis employing valence and ideology attributes of candidates. *Political Science Research and Methods* 3 (2): 221. ISSN: 2049-8489.
- Greene, Zachary, and Matthias Haber. 2015. The consequences of appearing divided: An analysis of party evaluations and vote choice. *Electoral Studies* 37:15–27. ISSN: 0261-3794. https://doi.org/10.1016/j.electstud.2014.11.002.
- 2016. Leadership Competition and Disagreement at Party National Congresses. British Journal of Political Science 46 (3): 611–632. ISSN: 0007-1234. https://doi.org/10.1017/S0007123414000283.
- Hainmueller, Jens, Dominik Hangartner, and Teppei Yamamoto. 2015. Validating vignette and conjoint survey experiments against real-world behavior. *Proceedings of the National Academy of Sciences* 112 (8): 2395–2400. ISSN: 1091-6490. https://doi.org/10.1073/pnas.1416587112.
- Hainmueller, Jens, Daniel J. Hopkins, and Teppei Yamamoto. 2014. Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments. *Political Analysis* 22 (1): 1–30. ISSN: 1476-4989. https: //doi.org/10.1093/pan/mpt024.
- Jung, Jae-Hee, and Zeynep Somer-Topcu. 2020. United we stand, divided we fall? The effects of parties' Brexit rhetoric on voters' perceptions of party positions. *Journal of Elections, Public Opinion and Parties*, 1–19. ISSN: 1745-7289. https://doi.org/10.1080/17457289.2020.1839470.
- Lehrer, Roni, and Nick Lin. 2020. Everything to everyone? Not when you are internally divided. *Party Politics* 26 (6): 783–794. ISSN: 1354-0688. https://doi.org/10.1177/1354068818812222.
- Lim, Claire S. H., and James M. Snyder Jr. 2015. Is more information always better? party cues and candidate quality in us judicial elections. *Journal of public Economics* 128:107–123.
- McFadden, Daniel. 1974. Conditional logit analysis of qualitative choice behavior. Vol. Frontiers in econometrics. New York: Academic Press.
- Plescia, Carolina, Sylvia Kritzinger, and Jakob-Moritz Eberl. 2020. 'The enemy within': Campaign attention and motivated reasoning in voter perceptions of intra-party conflict. *Party Politics*, 135406882090640. ISSN: 1354–0688. https://doi.org/10.1177/1354068820906407.
- Sältzer, Marius. 2020. Finding the bird's wings: Dimensions of factional conflict on Twitter. *Party Politics*, 135406882095796. ISSN: 1354-0688. https://doi.org/10.1177/1354068820957960.
- Sieberer, Ulrich. 2006. Party unity in parliamentary democracies: a comparative analysis. *The Journal of Legislative Studies* 12 (2): 150–178.
- Somer-Topcu, Zeynep, Margit Tavits, and Markus Baumann. 2020. Does party rhetoric affect voter perceptions of party positions? *Electoral Studies* 65:102153. ISSN: 0261-3794.
- Wolkenstein, Fabio. 2016. A Deliberative Model of Intra-Party Democracy. Journal of Political Philosophy 24 (3): 297–320. ISSN: 09638016. https://doi.org/10.1111/jopp.12064.

# Online Appendix 1. Question wording

We present all survey items used in the research note in their English translations as well as their German originals. Answer options are given in parentheses.

# Introduction to the experiment: English translation

Let us now turn to a different topic. In the following, we will show you ten times information on two made-up parties that compete against one another in an election. Please read the displayed information carefully and then decide which party you would rather vote for.

We will also ask you to rate the parties individually twice.

There are no wrong or correct answers to these questions. Only your assessment matters.

(Continue)

### Introduction to the experiment: German original

Kommen wir nun zu einem anderen Thema. Im Folgenden zeigen wir Ihnen zehn Mal jeweils Informationen zu zwei ausgedachten Parteien, die gegeneinander bei einer Wahl antreten. Bitte lesen Sie sich die angezeigten Informationen aufmerksam durch und entscheiden Sie sich dann bitte, welche Partei Sie eher wählen würden.

Zwei Mal werden wir Sie zusätzlich bitten, die Parteien einzeln zu bewerten.

Es gibt bei diesen Fragen keine falschen oder richtigen Antworten, es geht ausschließlich um Ihre Einschätzungen.

(Weiter)

# II Roni Lehrer *et al.*

Experiment: English translation

	Party A	Party B
Party Ideology	Right	Left
Critique of Party Leadership	Party factions	None
Parliamentary Voting Behavior	United	United
Behavior at Party Congress	United	Divided
Clarity of Reform Proposals	High	Low
Party Role	Opposition party	PM party
Candidate's gender	Female	Male
Candidate's age	56 years	38 years
Candidate's occupation	Entrepreneur	Lawyer

# If you had to choose between party A and B, which party would you choose? $(D_{A} + A_{B} + B_{A})$

(Party A, Party B)

All attribute levels are presented in Tables A1 and A2, respectively.

Dimension & Attribute	Levels
Ideology	
Ideological distance	0, 1, 2, 3, 4
Unity	
Critique of party leadership	None, Rank-and-file members, Former party leader, Party factions
Parliamentary voting behavior	United, Divided
Behavior at party congress	United, Neither united nor divided, Divided
Ambiguity	
Reform clarity	High, Low
Party	
Party role	Junior coalition partner, PM party, Opposition party
Candidate	
Gender	Female, Male
Ago	29 years EGypars 74 years
Age	so years, so years, 14 years
Occupation	Employee, Employee (retired), Entrepreneur, Lawyer,
	Politician , Activist

# Table A1. Attributes and attribute levels

# IV Roni Lehrer *et al.*

# Experiment: German original

	Partei A	Partei B
Politische Ausrichtung der Partei	rechts	links
Kritik an der Parteiführung	durch innerparteiliche Flügel	keine
Abstimmungsverhalten im Parlament	einheitlich	einheitlich
Verhalten auf dem Parteitag	geschlossen	zerstritten
Klarheit der Reformvorhaben	klar	unklar
Rolle der Partei im Parlament	Oppositionspartei	Partei des Regierungschefs
Geschlecht des Spitzenkandidaten	weiblich	männlich
Alter des Spitzenkandidaten	56 Jahre	38 Jahre
Berufliche Erfahrung des Spitzenkandidaten	Unternehmerin	Anwalt

Wenn Sie sich zwischen Partei A und B entscheiden müssten, welche Partei würden Sie wählen?

(Partei A, Partei B)

Dimension & Attribute	Levels
Ideology	
Ideologische Distanz	0, 1, 2, 3, 4
Unity	
Kritik an der Parteiführung	keine, durch die Parteibasis,
	durch ehemaligen Parteivorsitzenden,
	durch innerparteiliche Flügel
Abstimmungsverhalten im Parlament	einheitlich, uneinheitlich
Verhalten auf dem Parteitag	geschlossen, weder geschlossen noch zerstritten, zerstritten
Ambiguity	
Klarheit der Reformvorhaben	klar, unklar
Party	
Rolle der Partei im Parlament	Regierungspartei, Partei des Regierungschefs,
	Oppositionspartei
Candidate	
Geschlecht des Spitzenkandidaten	weiblich, männlich
Alter des Spitzenkandidaten	38 Jahre, 56 Jahre, 74 Jahre
Berufliche Erfahrung des Spitzenkandidaten	Angestellte[r] , Angestellte[r] (im Ruhestand),
[Exact specification depends on	Unternehmer[in], Anwalt [Anwältin],
candidate gender]	Politiker[in] , Aktivist[in]

# Table A2. Attributes and attribute levels

# Party rating: English translation

Now let's look at Party A. How do you rate Party A overall?

(1 = very negative, 2, 3, 4 = neither negative nor positive, 5, 6, 7 = very positive)

# Party rating: German original

Betrachten wir nun Partei A. Wie bewerten Sie Partei A insgesamt? (1 = sehr negativ, 2, 3, 4 = weder negativ noch positiv, 5, 6, 7 = sehr positiv)

# Left-right self-placement: English translation

In politics, people often talk about "left" and "right." Using this scale here, where would you classify yourself if 1 is "left" and 11 is "right"?

Please indicate the value that applies to you personally.

(1 = left, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 = right, don't know)

# Left-right self-placement: German original

In der Politik reden die Leute häufig von "links" und "rechts". Wenn Sie diese Skala hier benutzen, wo würden Sie sich selbst einordnen, wenn 1 "links" und 11 "rechts" ist?

Bitte geben Sie den Wert an, der auf Sie persönlich zutrifft.

(1 = links, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11 = rechts, weiß ich nicht)

# Online Appendix 2. Regression output

	coefficient	robust s.e.
Ideological distance (reference: 0)		
1	-0.417***	0.029
2	-1.443***	0.037
3	-2.747***	0.072
4	-3.823***	0.215
Intra-Party Critique (reference: None)		
Rank-and-file members	0.011	0.029
Former party leader	-0.059*	0.029
Party factions	-0.072*	0.029
Parliamentary voting (reference: United)		
Divided	-0.228***	0.021
Behavior at Party Congress (reference: United)		
Neither united nor divided	-0.168***	0.025
Divided	-0.607***	0.028
Reform clarity (reference: High)		
Low	-0.658***	0.023
Party role (reference: PM party)		
Opposition party	-0.026	0.025
Junior coalition partner	0.014	0.024
Candidate's gender (reference: Female)		
Male	-0.094***	0.021
Candidate's age (reference: 38 years)		
56 years	-0.092***	0.025
74 years	-0.645***	0.03
Candidate's occupation (reference: Employee)		
Activist	-0.292***	0.038
Lawyer	-0.056	0.037
Politician	-0.107**	0.037
Entrepreneur	-0.045	0.037
Employee (retired)	-0.206***	0.053
Log Likelihood	-14418.627	
N (observations)	53522	
N (choices)	26761	
N (respondents)	3687	

Table A3. Estimated coefficients from the conditional logistic model

\*\*\*p<0.001; \*\*p<0.01; \*p<0.05

#### Online Appendix 3. Comparison linear regression and conditional logit regression

In the research note's regression analysis, we opt for a conditional logit model because our survey experiment is based on random utility theory, and may be labelled a discrete choice experiment according to Louviere, Flynn, and Carson (2010). Hence, we compute conditional logistic regression models which are also based on random utility theory (McFadden 1974; Train 2009). Many scholars, however, follow Hainmueller, Hopkins, and Yamamoto (2014) and estimate AMCEs in conjoint experiments using linear models. Below, we show that our conclusions do not depend on which of the two estimators is used.

In Figure A1, we plot the AMCEs as obtained from the conditional logit model (squares) and as derived from the Conjoint AMCE Estimator which Hainmueller, Hopkins, and Yamamoto (2014) use (points). While the AMCEs of some attributes are show some statistically significant differences between the two estimators, these differences are substantially small. Therefore, we conclude that the conclusions we draw from the conditional logit model are also supported by the linear estimation procedure.



**Figure A1.** Comparison of AMCE's from our approach using conditional logistic regression to the approach using linear regression as implemented in Hainmueller, Hopkins, and Yamamoto (2014).

#### Online Appendix 4. Analysis excluding respondents who give inconsistent answers

To increase our confidence that respondents actually execute the experimental design correctly, we implemented a quality check in it. In particular, in two of the ten choice situations presented to them, respondents were asked to not only choose a party but also to rate them on a seven-point scale. While every respondent was asked to rate the first pair of parties, it was randomized in which of the remaining choice situations a respond was asked to provide another pair of party ratings.

We find that 94 % of all choices for which ratings are available as well are consistent, i.e., the respondent rates the party she chooses as least as well as she rates the party she does not choose. In the most conservative interpretation of this quality check, one may argue that a respondent whose ratings are inconsistent with her party choices at least once did not correctly follow the experiment instructions and hence biases the results. Taking that perspective, we restrict the sample to respondents whose choice-rating pairs are always consistent and re-estimate the conditional logit model as desrcibed in the main text.

Figure A2 reports the estimated AMCEs from the full sample (squares) as well as from the consistency-restricted sample (dots). We find that results are virtually identical. In particular, each model's confidence intervals cover the other model's point estimates. We, thus, conclude that our findings are not biased by respondents who did not conduct the experiment as expected.



**Figure A2.** Comparison of AMCE's when using answers from all respondents (Full sample) to results when excluding respondents who gave at least one inconsistent party rating, i.e. who rated the not chosen party better than the chosen party (Consistent ratings).

# Online Appendix 5. Analysis excluding respondents who do not know all intra-party critique attributes

Not all party unity dimension in the experiment need to be equally easy to understand:<sup>1</sup> This is because of the three party unity dimension included in the experiment, two are ordinal scaled (Parliamentary voting behavior: United, Divided; Behavior at party congress: United, Neither united nor divided, Divided), and one is nominal scaled (Critique of party leadership: None, Rank-and-file members, Former party leader, Party factions). Further, recall that when facing the first choice situation, respondents see (at most) two of the levels of each attribute. One may argue that this allows them to understand whether a given party scores rather high or low on the ordinal scales, but that a corresponding understanding of the nominal scale is less likely. If this line of argument is true, respondents likely make inconsistent choices with respect to the Critique of the party leadership attribute because they adjust their understanding of the attribute significantly once they learn about its other levels. Overall, this would bias our results.

In the following, we present empirical evidence that our substantial results remain unchanged when eliminating the (potential) aforementioned bias. More precisely, we exploit the fact that respondents made up to ten choices, and restrict our sample to choices that were made after a respondent had seen all levels of the Critique of the party leadership attribute. As a consequence, a respondent who previously contributed ten choice situations to the sample may now contribute any number between and zero and eight observations to the sample depending on how soon the randomly generated profile sets included all four levels on the Critique of the party leadership attribute. Overall, the restricted sample draws on 10,967 choices (40.98 % of the full sample) from 3033 respondents (82.26 %). Other than the restricted sample, our analysis strategy follows the description in the research note.

Figure A3 shows the coefficients and 95 % confidence intervals of both the analysis based on the full sample as presented in the research note (boxes) as well as the analysis based on the restricted sample (circles). A first glance reveals that that any differences that exist between the models' coefficients are rather small. A closer inspection shows that the point estimates obtained from the model based on the full sample are covered by the confidence intervals the model on the restricted sample returns. Further, the latter model estimates wider confidence intervals because it draws on

<sup>1.</sup> We thank Reviewer 1 for pointing this out to us.

fewer data points. This, however, does not affect any conclusions on whether a given coefficient is statistically significant or not. Overall, these results provide evidence that learning about the full set of levels on the Critique of the party leadership attribute does not substantially alter the conclusion we draw in the main text.



Figure A3. Comparison of AMCE's when using answers from all respondents (full sample) to results when excluding respondents who have not seen all attributes of the Intra-Party Critique dimension.

# Online Appendix 6.Comparing effect sizes of party unity to ideological distanceOnline Appendix 6.1Individual effects of party unity attributes

To better understand party unity's substantive importance and their substantive limitations, we compare the effect sizes of different manifestations of party unity and ideological distance. The panels of Figure A4 display predicted vote probabilities as ideological distance and a party unity dimensions vary. The other attributes are set to their reference levels and in particular the party unity attributes to their most united levels. The top panel shows that at any level of ideological distance a party with united voting behavior in parliament (indicated by the dots) is more likely to be chosen than a party with divided parliamentary voting patterns (triangles). Further, the effect of ideological distance is stronger than the effect of a party's voting behavior in parliament. In fact, it is so much stronger that an ideologically less distant party is always more likely to be chosen irrespective of its voting pattern in parliament. Similar to the findings on parliamentary behavior, the center panel reports that dividedness at party congresses harms parties at any level of ideological distance. Interestingly, however, we find that unified behavior at the party congress is so important that it makes a respondent more likely to vote for a united but not ideologically congruent party rather than for a divided party that is ideologically congruent. This suggests that party unity at party congresses alone can make up for ideological distance. Finally, the bottom panel in Figure A4 confirms the results that intra-party critique has a negligible independent effect on vote choice.

The plots also reveal an interaction effect: When ideological distance is small, unity in parliamentary voting and congress behavior make significant and substantially important differences by themselves, but for larger ideological distances, these effects shrink considerably. When a party is located at the other end of the ideological spectrum, party unity makes no difference. For closer races, however, party unity may be the decisive factor.

# Online Appendix 6.2 Joint effects of party unity attributes

Above, we established that united behavior in parliament and absence of critique toward the party leadership do not suffice individually to compensate for a single unit of ideological distance. By contrast, united behavior at party congresses can compensate for a single unit of ideological distance by itself, yet, not for more.

In the main text, we further demonstrated that the different party unity attributes' joint effects

can, if combined in the right way, compensate for a unit ideological distance. Here, we show that even the strongest joint effect has only a limited impact on vote choice in comparison to ideological distances.

The table in Figure A5 shows the characteristics of two parties. Please note that Party 1 positions at the voter's positions and is internally fully divided. In particular, all party unity attributes are set to their most divided levels. By contrast, Party 6 positions two units away from the voter and its party unity attributes are as united as possible. Otherwise, the two parties are identical.

As the plot in Figure A5 shows, despite its absolute disunity and Party 6's absolute unity, Party 1 is favored over Party 6. Since all other characteristics are identical, this is due to its smaller ideological distance. Together with the evidence presented in the main text, i.e., that a single unit of policy distance can be compensated for by party unity, we conclude that depending on its joint effect party unity can compensate for a single unit of ideological distance, yet, not for more.



**Figure A4.** Predicted vote probabilities based on different dimensions of party unity and ideological distance. All other variables are set to their reference categories (see Figure 1 in the main text).

	Party 1	Party 6
Ideological Distance	0	2
Critique of Party Leadership	Party factions	None
Parliamentary Voting	Divided	United
Behavior at Party Congress	Divided	United
Clarity of Reform Proposals	High	High
Party Role	PM party	PM party
Candidate's gender	Female	Female
Candidate's age	38 years	38 years
Candidate's occupation	Employee	Employee



Figure A5. Hypothetical competition scenarios.

#### References

- Bansak, Kirk, Jens Hainmueller, Daniel J. Hopkins, and Teppei Yamamoto. 2018. The Number of Choice Tasks and Survey Satisficing in Conjoint Experiments. *Political Analysis* 26 (1): 112–119. ISSN: 1476-4989. https://doi.org/10.1017/pan. 2017.40.
- Ben-Akiva, Moshe, Daniel McFadden, and Kenneth Train. 2019. Foundations of Stated Preference Elicitation: Consumer Behavior and Choice-based Conjoint Analysis. *Foundations and Trends in Econometrics* 10 (1-2): 1–144. ISSN: 1551–3084. https://doi.org/10.1561/0800000036.
- Blom, Annelies G., Marina Fikel, Sabine Friedel, Jan Karem Höhne, Ulrich Krieger, Tobias Rettig, Alexander Wenz, and SFB 884 'Political Economy Of Reforms', Universität Mannheim. 2020. German Internet Panel, Welle 44 (November 2019), https://doi.org/10.4232/1.13614.
- . 2021. German Internet Panel, Welle 43 Core Study (September 2019), https://doi.org/10.4232/1.13673.
- Blom, Annelies G., Christina Gathmann, and Ulrich Krieger. 2015. Setting Up an Online Panel Representative of the General Population. *Field Methods* 27 (4): 391–408. ISSN: 1525-822X. https://doi.org/10.1177/1525822X15574494.
- Carey, John M. 2007. Competing Principals, Political Institutions, and Party Unity in Legislative Voting. *American Journal* of Political Science 51 (1): 92–107. ISSN: 1540-5907.
- Carnes, Nicholas, and Noam Lupu. 2016. Do voters dislike working-class candidates? Voter biases and the descriptive underrepresentation of the working class. *The American Political Science Review* 110 (4): 832. ISSN: 00030554.
- Ceron, Andrea. 2012. Bounded oligarchy: how and when factions constrain leaders in party position-taking. *Electoral Studies* 31 (4): 689–701.
- ———. 2015b. The politics of fission: an analysis of faction breakaways among italian parties (1946–2011). British Journal of Political Science 45 (1): 121–139.
- ———. 2017. Intra-party politics in 140 characters. Party Politics 23 (1): 7–17. ISSN: 1354-0688. https://doi.org/10.1177/ 1354068816654325.
- Ceron, Andrea, and Zachary Greene. 2019. Verba volant, scripta manent? intra-party politics, party conferences, and issue salience in france. *Party Politics* 25 (5): 701–711.
- Close, Caroline, and Sergiu Gherghina. 2019. Rethinking intra-party cohesion: towards a conceptual and analytical framework. *Party Politics* 25 (5): 652–663.
- Debus, Marc, Mary Stegmaier, and Jale Tosun. 2014. Economic voting under coalition governments: evidence from germany. Political Science Research and Methods 2 (1): 49–67.

- Franchino, Fabio, and Francesco Zucchini. 2015. Voting in a multi-dimensional space: A conjoint analysis employing valence and ideology attributes of candidates. *Political Science Research and Methods* 3 (2): 221. ISSN: 2049-8489.
- Greene, Zachary, and Matthias Haber. 2015. The consequences of appearing divided: An analysis of party evaluations and vote choice. *Electoral Studies* 37:15–27. ISSN: 0261-3794. https://doi.org/10.1016/j.electstud.2014.11.002.
- 2016. Leadership Competition and Disagreement at Party National Congresses. British Journal of Political Science 46 (3): 611–632. ISSN: 0007-1234. https://doi.org/10.1017/S0007123414000283.
- Hainmueller, Jens, Dominik Hangartner, and Teppei Yamamoto. 2015. Validating vignette and conjoint survey experiments against real-world behavior. *Proceedings of the National Academy of Sciences* 112 (8): 2395–2400. ISSN: 1091-6490. https://doi.org/10.1073/pnas.1416587112.
- Hainmueller, Jens, Daniel J. Hopkins, and Teppei Yamamoto. 2014. Causal Inference in Conjoint Analysis: Understanding Multidimensional Choices via Stated Preference Experiments. *Political Analysis* 22 (1): 1–30. ISSN: 1476-4989. https: //doi.org/10.1093/pan/mpt024.
- Jung, Jae-Hee, and Zeynep Somer-Topcu. 2020. United we stand, divided we fall? The effects of parties' Brexit rhetoric on voters' perceptions of party positions. *Journal of Elections, Public Opinion and Parties*, 1–19. ISSN: 1745-7289. https://doi.org/10.1080/17457289.2020.1839470.
- Lehrer, Roni, and Nick Lin. 2020. Everything to everyone? Not when you are internally divided. *Party Politics* 26 (6): 783–794. ISSN: 1354–0688. https://doi.org/10.1177/1354068818812222.
- Lim, Claire S. H., and James M. Snyder Jr. 2015. Is more information always better? party cues and candidate quality in us judicial elections. *Journal of public Economics* 128:107–123.
- McFadden, Daniel. 1974. Conditional logit analysis of qualitative choice behavior. Vol. Frontiers in econometrics. New York: Academic Press.
- Plescia, Carolina, Sylvia Kritzinger, and Jakob-Moritz Eberl. 2020. 'The enemy within': Campaign attention and motivated reasoning in voter perceptions of intra-party conflict. *Party Politics*, 135406882090640. ISSN: 1354-0688. https://doi.org/10.1177/1354068820906407.
- Sältzer, Marius. 2020. Finding the bird's wings: Dimensions of factional conflict on Twitter. *Party Politics*, 135406882095796. ISSN: 1354-0688. https://doi.org/10.1177/1354068820957960.
- Sieberer, Ulrich. 2006. Party unity in parliamentary democracies: a comparative analysis. *The Journal of Legislative Studies* 12 (2): 150–178.
- Somer-Topcu, Zeynep, Margit Tavits, and Markus Baumann. 2020. Does party rhetoric affect voter perceptions of party positions? *Electoral Studies* 65:102153. ISSN: 0261-3794.
- Wolkenstein, Fabio. 2016. A Deliberative Model of Intra-Party Democracy. *Journal of Political Philosophy* 24 (3): 297–320. ISSN: 09638016. https://doi.org/10.1111/jopp.12064.