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**Voice and Political Engagement :  
Evidence From a Natural Field Experiment**

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# Voice and Political Engagement: Evidence From a Natural Field Experiment\*

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December 17, 2021

## Abstract

We conduct a natural field experiment with a major European party to test whether giving party supporters the opportunity to voice their opinions increases their engagement in the party's electoral campaign. In our experiment, the party asked a random subset of supporters for their opinions on the importance of different topics. Giving supporters more opportunities to voice their opinions increases their engagement in the campaign as measured using behavioral data from the party's smartphone application. Survey data reveals that our voice treatments also increase other margins of campaign effort as well as perceived voice. Our evidence highlights that parties can increase their supporters' investment in the democratic process by implementing policies that increase their voice.

**Keywords:** Political engagement, Inclusion, Voice, Agency, Natural Field Experiment, Canvassing

**JEL Classification:** D8, P16

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# 1 Introduction

Modern democracies' success relies on political parties which manage to represent their members' and voters' interests. Yet, major established parties have lost a large fraction of their members (Biezen and Poguntke, 2014). One of the recurring criticisms of mainstream parties is that they do not pay sufficient attention to their members' and voters' views and interests (Grzymala-Busse, 2019). When members feel that their party is not interested in their views, they may feel discouraged from engaging and may consequently exit the party (Hirschman, 1970). To counteract such disengagement, political parties can implement policies aiming to increase their members' voice.

In this paper, we test whether giving voice to supporters of a major European party affects their engagement in the party's electoral campaign. In our natural field experiment the party invites approximately 12,000 supporters to take part in a survey to organise the upcoming campaign. 964 of these supporters complete the survey. A random subset of these supporters is assigned to receive the opportunity to share their opinions with the party. Half of the treated supporters are asked for their opinions on the importance of different topics for improving the electoral success of the campaign (instrumental voice treatment), while the other half of the treated supporters are asked for their opinions on the importance of different topics for them personally (intrinsic voice treatment). To influence respondents' perceptions of the credibility of the party's intentions to take supporters' views into account, we cross-randomize whether supporters are informed that they will be provided with feedback in the form of a summary of the survey results (feedback treatment). To test how these different treatments affect engagement in the party's electoral campaign, we employ both survey data on intended participation in different campaign activities and behavioral data on actual participation in door-to-door campaigning collected via the party's smartphone application.

We provide several sets of results about voice and political engagement. First, the survey data shows that a large fraction of party supporters feel that they are not given enough opportunities to voice their opinions to the party leadership or that their opinions are not considered. For example, only 24% of supporters state that their opinion is taken into account in the context of the electoral campaign.

Second, perceptions of being heard by the party are strongly positively associated

with party supporters' subsequent willingness to participate in their party's electoral campaign, both as measured in a survey and with behavioral data on canvassing. A one-standard deviation higher index of perceived voice is associated with 0.59 higher intended number of campaign activities ( $p < 0.01$ ) and a 1 percentage point higher likelihood of participating in the canvassing campaign ( $p < 0.05$ ), as measured by the app data.

Third, the natural field experiment reveals that giving supporters the opportunity to voice their opinions increases their subsequent campaign effort. The voice treatments increase the likelihood of canvassing by 2.6 percentage points ( $p < 0.01$ ), which is a large relative effect size given the low levels of baseline activity measured in the app (with a control group mean close to zero).<sup>1</sup> The effect could reflect either higher actual canvassing activity or higher app usage, both of which are costly contributions to the party's campaign. We also uncover increases in intended campaign effort based on survey data. Party supporters in any of the voice treatments plan to increase the total number of campaign activities, on average, by 0.21 ( $p < 0.05$ ), corresponding to a 9 percent increase relative to a 2.42 activities in the control group.

Fourth, we document sizeable, yet non-significant differences in the treatment effects of the different voice treatments. The treatment effect is most pronounced among supporters who are asked for their opinions on which topics to emphasize to improve the electoral campaign, with 35% to 44% larger point estimates compared to supporters who are asked which topics are most important to them personally. The feedback treatment only has relatively muted and statistically non-significant average effects on engagement in the campaign.

Fifth, we show that our voice treatments positively impact supporters' perceptions of the party's interest in their views and their level of identification with the party. The treatment effects are again strongest for supporters exposed to the voice treatment in which members are offered an opportunity to provide input into the electoral campaign. At the same time, the voice treatments do not systematically change supporters' beliefs about the effectiveness of the party's electoral campaign strategy. Our findings suggest

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<sup>1</sup>The measured baseline activity may have been modest as campaign activities were unusually low due to a relatively unpopular main candidate. Moreover, it is likely that not all canvassers used the party's app to report their canvassing activities as the app only became available just prior to the beginning of campaign season.

that an increase in supporters' perceived esteem from the party (Akerlof, 2017) is an important channel through which the voice treatments may have affected engagement. On the contrary, a change in perceived campaign effectiveness does not seem to explain the results.

Our paper builds on Hirschman's seminal work on possible responses to organizational decline. Hirschman (1970) introduced the idea that facing unsatisfactory performance of a private or public sector organization, members of the organization can either voice their discontent to create improvement, or exit the relationship. We provide direct causal evidence on the idea that giving voice increases political engagement and may thus reduce exit from political parties.<sup>2</sup> Our findings highlight that even a small intervention can have sizeable effects on engagement in the party's campaign.

Our findings are relevant for a broad and growing literature concerned with declining civic engagement. In particular, our study contributes to a literature investigating the motivation and behavior of political activists such as party supporters (Hager et al., 2019, 2021a,b; Perez-Truglia and Cruces, 2017) and protesters (Acemoglu et al., 2018; Bursztyn et al., 2021; Cantoni et al., 2017, 2019; Enikolopov et al., 2020a,b; González, 2020; Hager et al., 2021c; Manacorda and Tesei, 2020; McClendon, 2014; Passarelli and Tabellini, 2017).<sup>3</sup> We contribute to this literature by providing new evidence on the importance of vertical relationships between the leadership of a political organization and its members and supporters. In doing so, our study also draws a connection to recent work on candidate selection (Casey et al., 2021). While our experiment focuses on giving party supporters an opportunity to voice their preferences about policy themes, party supporters likely also appreciate the opportunity to provide input into the leadership's decisions on candidate selection. Our evidence highlights that the extent to which the rank and file receive opportunities to communicate their concerns and preferences to the party leadership has important implications for their motivation.

Our paper relates to a large literature on incentives in organizations more broadly (Gibbons, 1998). In recent years, this literature has put particular emphasis on the role

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<sup>2</sup>Our findings relate to work by Trucco et al. (2017) who studies the impact of government responsiveness to citizens' complaints about local public goods provision on citizens' future involvement and engagement using a field experiment in Buenos Aires.

<sup>3</sup>Our work is also related to a literature on the persuasive effects of canvassing (Kalla and Broockman, 2017; Pons, 2018).

of social incentives in organizations (Ashraf and Bandiera, 2018). Social incentives are understood as factors that originate from interactions with others and affect workers' marginal cost or benefit of effort provision. Our paper's focus on members' feelings vis-à-vis the party is most closely related to work by Akerlof and Kranton (2005) who point out the importance of identity in shaping effort choices in organizations.<sup>4</sup> While voice in organizations has received little attention in political organizations, there is a growing literature on voice and worker representation in firms (Adhvaryu et al., 2019b; Harju et al., 2021; Jäger et al., 2021). Adhvaryu et al. (2019b) show that workers quit when wage increases do not meet their expectations, but enabling voice mitigates this exit. More broadly, our findings on the mechanisms, which highlight a role for members being valued by the party, relate to the idea that the extent to which workers feel valued, is a key determinant of firm performance (Adhvaryu et al., 2019a; Ashraf and Bandiera, 2018; Bandiera et al., 2009; Hoffman and Tadelis, 2021).

Our evidence has implications for the design of vertical relationships and social incentives in organizations. Organizations, such as political parties, may be able to increase their members' willingness to exert effort by implementing policies that increase their members' voice. Our results also provide insights on how creating such opportunities to voice opinions may be most effective in shaping both perceived agency and eventually effort choices. Providing members with opportunities to voice their opinion on topics with high instrumental relevance might be a promising avenue for increasing members' motivations to contribute to the success of the organisation.

Our paper proceeds as follows. Section 2 discusses the setting, sample and design. In Section 3, we present basic descriptive results combining survey data with party records on engagement. In Section 4, we present the results from the natural field experiment. Section 5 concludes.

## 2 Setting and Design

In this Section, we describe the setting, our sampling strategy as well as the design of the natural field experiment.

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<sup>4</sup>Recent related work sheds light on the role of mission in shaping effort choices in organizations (Cassar and Meier, 2018; Khan, 2021)

## 2.1 Setting

Our field experiment took place in the run-up to a recent general election in a Western European country. The experiment was implemented in collaboration with a major political party to study party supporters' actual participation in the party's door-to-door canvassing campaign as well as other margins of campaign effort. The experimental manipulation was administered in an online survey sent out, on behalf of the party, roughly five weeks before the election. After the intervention, we measure intended campaign effort along several margins, and track party supporters' real canvassing efforts throughout the campaign until election day.

Our collaboration partner promoted canvassing as a campaigning tool through internal communication channels. All canvassing volunteers were instructed to record every canvassed door in a novel smartphone application as a way to help the party organize the ongoing as well as future campaigns. The data from the application provide unique behavioral outcomes on actual canvassing behavior. One caveat to bear in mind is that usually only a very small fraction of members take part in the canvassing campaign.

## 2.2 Sampling and Procedures

Our original sample comprises all party supporters who had signed up to the party's campaign email list about 5 weeks prior to the election. This list contained around 12,000 party supporters.<sup>5</sup> In the first week of the official start of the party's electoral campaign, we contacted these supporters with an email invitation on behalf of the party. The email asked supporters to participate in an online survey to help organize the campaign.<sup>6</sup> The invitation email was designed and sent by the party to preserve the natural environment and ensure that participants would not be aware of being part of an experiment. A reminder email was sent seven days later.

In total 1,007 party supporters responded to the online survey for this experiment and

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<sup>5</sup>This list is not identical to the list of party members which is orders of magnitudes larger.

<sup>6</sup>It is possible that all respondents – irrespective of their treatment status – perceived the email invitation to participate in an online survey as an increase in their voice within the party. This implies that our estimates likely constitute lower bounds as individuals in the control group also experienced a potential increase in perceived voice.



saw the treatment screen.<sup>7</sup> This corresponds to a response rate of 8 percent.<sup>8</sup> Random assignment to the different treatment conditions and the experimental manipulation took place within the online survey. The natural field setting mitigates concerns about experimenter demand effects (de Quidt et al., 2018) and selection into the study (Harrison and List, 2004).

Table 1 displays basic characteristics of our sample. 20% of the respondents to our survey are female. Respondents have an average age of 48 years. 95% of them are actually members of the party. Party supporters in our sample have been affiliated with the party for an average of 15.6 years. 78% of the respondents have some experience with campaign activities, with organizing campaign booths and convincing friends being the most common activities. 51% report to have previous experience in canvassing.

**Pre-registration** The analysis was pre-registered at the AsPredicted registry before the start of the data collection (<https://aspredicted.org/v5ec6.pdf>).<sup>9</sup>

## 2.3 Experimental Design

In this Section we describe the design of the natural field experiment.

### 2.3.1 Background Characteristics

All party supporters who followed the invitation link to the party’s online survey were asked a set of questions eliciting basic background characteristics and beliefs. For example, we elicit prior experience with different campaign activities and perceived voice in the party.

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<sup>7</sup>This number falls short of our target sample size from the pre-analysis plan, likely as the party’s main candidate was relatively unpopular.

<sup>8</sup>Compared to the population of party members, our final sample is roughly representative in terms of gender. However, participants in our experiment are substantially younger than the average party member. The sample for this experiment has also participated more in past electoral campaigns than participants of previous experiments in the same context.

<sup>9</sup>Contrary to our expectations, the party only provided us with data on the total number of doors knocked on during the campaign rather than data on the number of days of activity. As a result, we do not observe the number of days of canvassing and hence cannot include it in our analyses, as pre-specified. However, in past data collected via the same canvassing app, the number of days spent canvassing and the number of doors that a given supporter visited are highly correlated (Hager et al., 2019).

Table 1: Summary table

	Mean	SD	Median	Min.	Max.	Obs.
<u>Individual level characteristics</u>						
Female	0.20	0.40	0.00	0	1	1007
Age	47.51	17.39	48.00	18	77	1007
Party member	0.95	0.22	1.00	0	1	1007
Years of party membership (winsorized)	15.55	15.30	10.00	0	56	1007
Perceived voice within party (1 - 5 Likert scale)	3.19	1.24	3.00	1	5	1007
<u>Prior experience</u>						
Any experience campaigning	0.78	0.42	1.00	0	1	1007
Experience: door canvassing	0.51	0.50	1.00	0	1	1007
Experience: # days door canvassing (winsorized)	13.70	32.62	1.00	0	200	1007
Experience: sticking poster	0.62	0.48	1.00	0	1	1007
Experience: campaign booth	0.69	0.46	1.00	0	1	1007
Experience: social media	0.45	0.50	0.00	0	1	1007
Experience: phone canvassing	0.19	0.39	0.00	0	1	1007
Experience: convince friends	0.66	0.47	1.00	0	1	1007
Experience: other	0.13	0.34	0.00	0	1	1007
<u>Post treatment attitudes (control)</u>						
I can make a difference through my involvement in [partyname].	3.37	1.07	4.00	1	5	326
I feel connected to [partyname].	4.24	0.81	4.00	1	5	326
My opinion is being taken into account to improve the party's election campaign.	2.75	1.08	3.00	1	5	326
I have the feeling that [partyname] is interested in my opinion.	3.02	1.09	3.00	1	5	326
The [partyname] has an effective campaigning strategy.	2.48	1.10	2.00	1	5	326
<u>Post treatment intentions (control)</u>						
# intended activities	2.42	1.77	2.00	0	6	330
Has no plans	0.16	0.37	0.00	0	1	330
Intention: door canvassing	0.31	0.46	0.00	0	1	330
Intention: # days door canvassing	2.24	5.57	0.00	0	35	328
Intention: sticking posters	0.39	0.49	0.00	0	1	330
Intention: campaign booth	0.56	0.50	1.00	0	1	330
Intention: social media	0.47	0.50	0.00	0	1	330
Intention: phone canvassing	0.12	0.33	0.00	0	1	330
Intention: convince friends	0.70	0.46	1.00	0	1	330
Intention: other	0.13	0.34	0.00	0	1	330
<u>Post treatment behavior (control)</u>						
Knocked on any door	0.00	0.05	0.00	0	1	335
# doors knocked	0.10	1.75	0.00	0	32	335
<u>Provided comments (all treatment)</u>						
Any comment	0.51	0.50	1.00	0	1	672
Nonsense comment	0.02	0.13	0.00	0	1	672
Constructive comment	0.38	0.49	0.00	0	1	672
Comment length	104.52	193.55	7.00	0	1037	672

Notes: Table 1 presents summary statistics of the experimental sample.

### 2.3.2 Voice Treatments

One third of our respondents proceed straight to the intended campaign activities after the initial survey block. This group of respondents constitutes the control group. Two thirds of respondents are assigned to a treatment that was designed to increase their perceived voice within the party. Half of those are assigned to an “intrinsic voice” treatment, while the other half are assigned to an “instrumental voice” treatment. We

designed the experimental treatments in close collaboration with the party to ensure that the treatments would feel natural to respondents. Figure 1 provides an overview of our experimental design. We describe these treatment conditions in more detail below.

**Intrinsic voice treatment** Respondents in the “intrinsic voice” treatment receive the following set of instructions:

Your opinion is very important to us. We are particularly interested in which topics are close to your heart. We would therefore like to ask you a few questions. How much do you personally care about the following issues?

The idea behind the “intrinsic voice” treatment is to provide supporters with an opportunity to share their opinions about the types of topics they care about.

To elicit these opinions, respondents are initially shown a matrix table listing nine different topics. These topics are selected based on the main elements of the party’s campaign manifesto and comprised topics ranging from “environment, nature and protecting the climate” to “economy” and “foreign policy and national security”, for instance. Respondents are then able to indicate how much they personally care about each of these topics on a 4-point Likert scale. On the subsequent survey page, respondents are then also given the opportunity to add more thoughts on which topics they personally care about most via an open text box.

**Instrumental voice treatment** Respondents in the “instrumental voice” treatment, on the other hand, receive the following set of instructions:

Your opinion is very important to us. We are particularly interested in which topics seem important to you based on your experience in your constituency. We would therefore like to ask you a few questions. Your answers help us to make the election campaign more effective. What do you think: How much should we emphasize the following issues in the current national election campaign?

The idea behind the instrumental voice treatment is to provide supporters with an opportunity to express their opinions on how to improve the effectiveness of the electoral campaign based on their impressions and experiences made in the local constituency.

This treatment thus provides respondents with an opportunity to express their opinions to potentially influence a core instrumental concern of the party: achieving success in the upcoming general election.

The implementation of this treatment closely follows the procedure described above for the intrinsic voice treatment. Respondents are first asked to indicate which topics the party should emphasize in the general election campaign based on a matrix table listing nine different topics.<sup>10</sup> Similarly to the intrinsic voice treatment, respondents are then offered the opportunity to provide further discussion of the topics which they consider important for the success of the party's electoral campaign via an open text field.

### **2.3.3 Feedback Treatment**

To credibly signal that supporters' views are being acknowledged and considered, organizations may choose to offer supporters feedback on the views they had expressed.<sup>11</sup> One way in which such feedback can be provided is by circulating a summary of supporters' views to all members of the party. With our design, we aim to test the relevance of such feedback by cross-randomizing, among respondents in the voice treatments, whether members are told that they will receive a summary of the survey results. In particular, respondents in the feedback condition receive the following additional instructions once at the introductory text of the voice treatment and then on the survey page with the open text box:<sup>12</sup>

After completing the survey, we will send you a summary of the results.

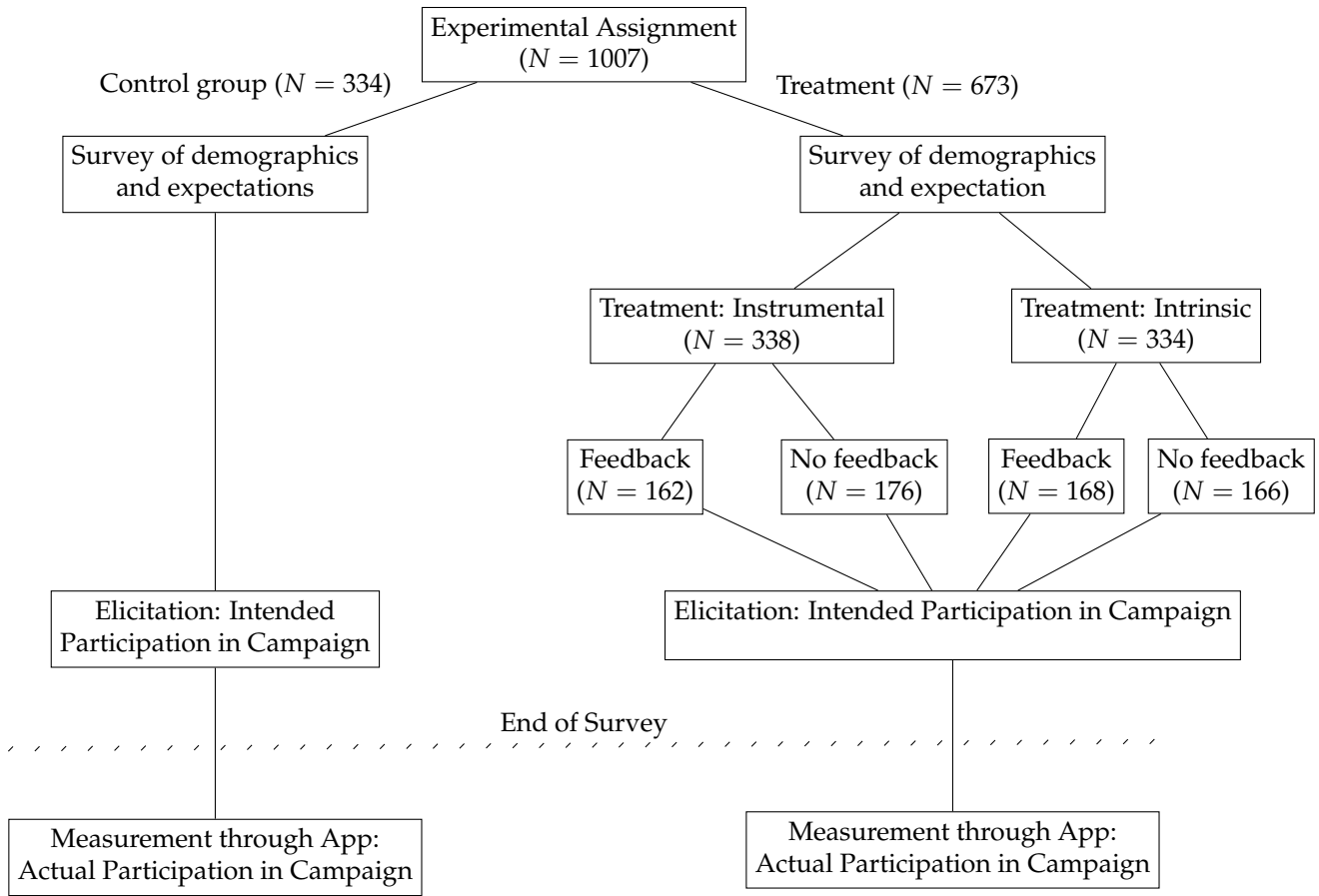
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<sup>10</sup>We hold the topics listed in the table as well as respondents' answer choices (4-point Likert scale) constant across both treatment conditions.

<sup>11</sup>In a laboratory setting, Corgnet and Hernan Gonzalez (2014) study principal-agent interactions in which the principal has the opportunity to consult the agent. Their results highlight the potentially detrimental effects of creating the impression that the opinions of lower ranked members of an organization are ignored.

<sup>12</sup>See Appendix B for the full set of instructions.

Figure 1: Experimental design



Notes: Figure 1 illustrates the experimental design.

## 2.4 Measures of Campaign Effort

We study the campaign effort of party supporters by combining both behavioral outcome data on canvassing as well as survey data capturing several effort margins.

**Survey based outcomes** At the end of the survey, all respondents are asked about their intentions to contribute to the current election campaign. More precisely, respondents can select all items from a list of activities that they intend to engage in throughout the electoral campaign. The list includes (i) canvassing, (ii) putting up posters, (iii) participating in campaign booths, (iv) online advertisements for the party (e.g. sharing campaign materials on social media), (v) calling supporters, and (vi) talking to family, friends, and acquaintances about the party’s election program. Moreover, among re-

spondents who indicate that they plan to canvass, we elicit the intended number of days of canvassing.<sup>13</sup>

**Post-treatment beliefs** Finally, we elicit a range of different beliefs to examine the extent to which our intervention was successful in changing members' perceptions of the party. In particular, we ask respondents to what extent they agree with a number of different statements. We first measure supporters' perceived agency in the party by asking for their agreement with the statement that "*[they] can make a difference through [their] involvement in [partyname]*". Second, we measure the extent to which they think "*[their] opinion matters for improving the campaign strategy*". Third, we elicit supporters' perception of whether "*[they] have the feeling that the party is interested in [their] opinion*". Fourth, to measure supporters' identification with the party we measure their agreement with the statement that "*[they] feel connected to the party*". Based on these four questions we then build an index of voice, which aims to capture the extent to which members feel heard by their party. As an additional distinct mechanism, we also measure our respondents' beliefs about the effectiveness of the party's campaign strategy.

**App data** To assess actual behavioral change, we leverage data from the party's smartphone application. Members were encouraged to use the application as it would help to plan current and future campaign activities. We use the data from the application to assess several pre-specified behavioral outcomes: first, an indicator for whether a supporter knocks on any doors; second, the number of doors a supporter knocks on (winsorized at the 99<sup>th</sup> percentile).<sup>14</sup>

**Validation** Given that our data allows us to link supporters' survey responses to their actual canvassing behavior in the field measured via the party's smartphone application, we can study how intentions are related to actual canvassing behavior. We find that people's intentions to do any canvassing are significantly related to whether they actually canvass ( $\rho = 0.19, p < 0.001$ ). Canvassing intentions and behavior are also correlated when controlling for the full set of control variables (see Online Appendix Table A4).

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<sup>13</sup>The intended number of days for respondents who do not plan to canvass is coded as zero days.

<sup>14</sup>Individuals who do not appear in the application data are coded as not having canvassed.

These statistically significant correlations show that intentions are predictive of subsequent actual behavior. However, the fact that these correlations are far below one, highlights that self-reported intentions and actual behavior of supporters cannot be equated. This underscores the need to collect behavioral outcomes in addition to self-reported intentions.<sup>15</sup>

## 2.5 Balance

Appendix Tables A1 shows that the within-survey randomization was generally successful in creating treatment and control groups that do not differ systematically in terms of observable characteristics. In particular, Appendix Table A1 indicates a significant difference between respondents in the control group and those respondents that were randomly assigned to any of the four different voice treatments only in terms of the expected vote share for supporters' own party (significant at the 10% level). The observed differences are consistent with chance given a comparison in terms of 17 observed dimensions.<sup>16</sup>

## 3 Descriptive Evidence on Voice

In this Section, we provide descriptive evidence on voice. First, we characterize the extent to which members feel heard by the party. Second, we examine associations between voice and measures of campaign effort.

### 3.1 Descriptive Facts about Voice

We use two measures of perceived voice to investigate the fraction of supporters feeling that they are not heard by the party. First, we asked respondents directly whether they are feeling heard by the party as part of the set of basic questions administered to all

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<sup>15</sup>In practice, there is a fraction of canvassers that does not report the door-to-door activity in the app. This, in turn, should result in attenuation bias of the estimated strength of the relationship between the intended participation in the campaign and actual participation as measured with the app data.

<sup>16</sup>In Online Appendix Table A2 we show a balance table for the type of voice component of the treatment. The instrumental and intrinsic type of voice only significantly differ on the fraction of supporters that are members of the party and none of the other dimensions. Similarly, we only observe one significant difference between the voice treatments with and without feedback (Online Appendix Table A3).

respondents. Second, we construct a voice index based on the four post-treatment beliefs described in section 2.4.

Figure 2 highlights substantial heterogeneity in the extent to which people feel that their views are heard based on the pre-treatment distribution of perceived voice. 32% of members feel that they are “definitely not” or “rather not” heard within the party. 22% of members are unsure, while the remaining 45% of members feel that they are rather or definitely heard by the party.

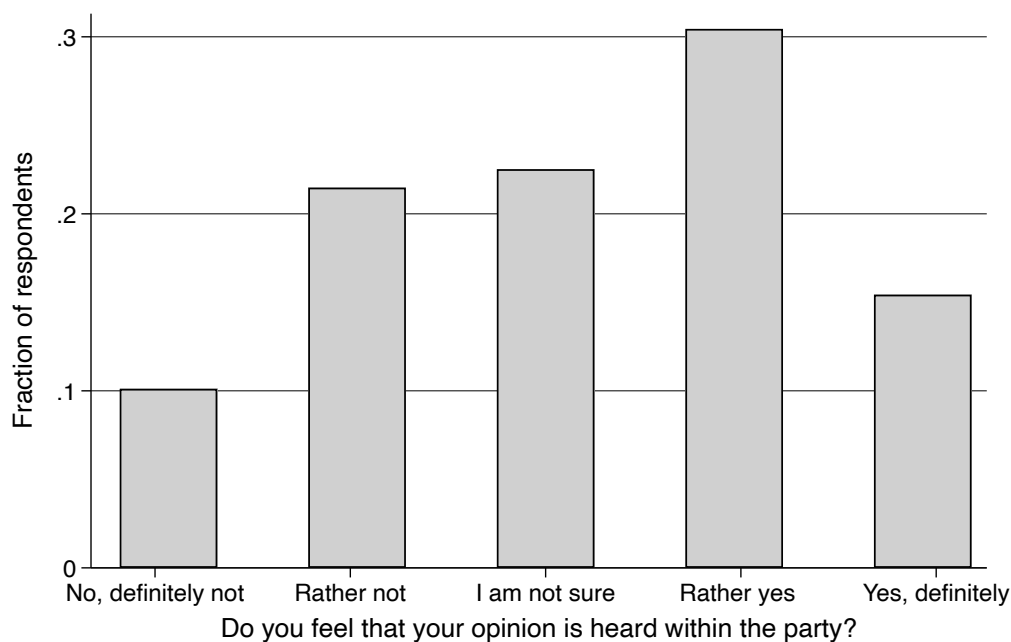


Figure 2: Distribution of perceived voice prior to treatment

Appendix Figure A1 describes the correlates of these two measures of perceived voice. The only predictor of voice across both measures is the vote share that supporters expect their own party to obtain. For both voice measures, a one standard deviation increase in this expectation is associated with 0.25 and 0.29 standard deviations more perceived voice ( $p < 0.01$ ), respectively. Demographic characteristics and party membership are generally not significantly related to perceived voice in a consistent manner.

**Open-ended responses** Party supporters’ opinions which they were able to provide in an open text box indicate that a substantial fraction of party supporters experience



high demand for voice.<sup>17</sup> Table 1 illustrates that 51 percent of supporters give voluntary input when offered the opportunity to share their opinions via an open-ended text box. Moreover, 36 percent of these party supporters provide constructive input. The most commonly mentioned topics are related to the general campaign strategy, the topics that should be emphasized more heavily in the campaign, and the party's candidate selection decisions. Overall, the open-ended data thus suggests both a high engagement of survey participants and a significant demand for voice.

### 3.2 Association between Voice and Engagement

Our post-treatment measure of voice is strongly correlated with both campaign intentions and actual canvassing behavior.<sup>18</sup> Panel A of Figure 3 shows an almost linear, positive relationship between the voice index and the number of activities that supporters report to intend to engage in throughout the electoral campaign. A one standard deviation increase in the voice index is associated with 0.59 more intended activities ( $p < 0.001$ ). Panel B of Figure 3 shows the same correlation for actual canvassing behavior. The correlation is also positive with a one standard deviation increase in the index being, on average, associated with a one percentage point increase of canvassing activity. However, this association appears to be strongest for individuals in the top decile of the voice index. These correlations raise the question whether an increase in party supporters' perceived voice can causally influence different dimensions of their campaign effort. We turn to the results from the natural field experiment to address this question in the next section.

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<sup>17</sup>We observe this open-ended data for respondents in any of the voice treatments, but not for respondents in the control group.

<sup>18</sup>Note that we use the post-treatment voice index and the entire sample for this exercise due to the low level of canvassing behavior in the control group.

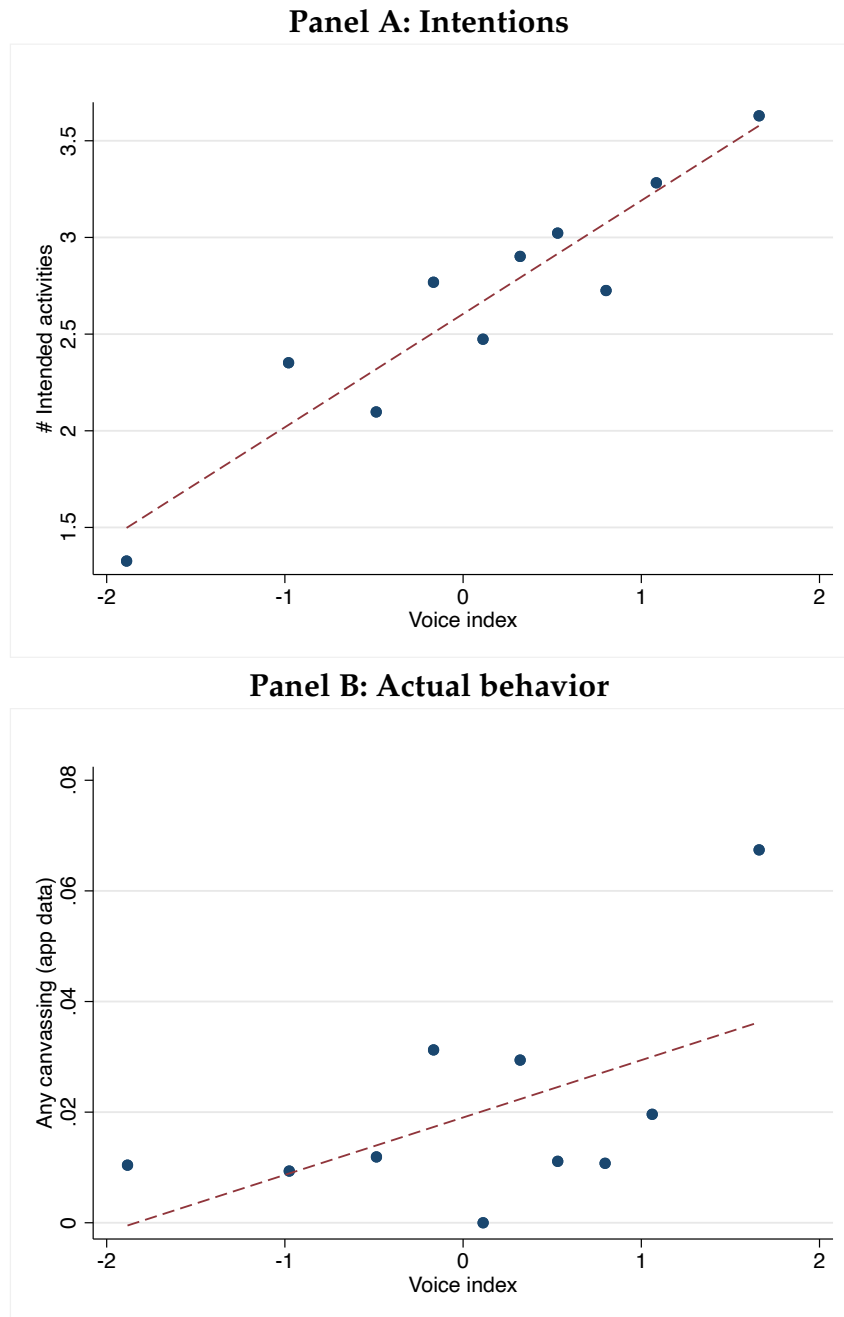


Figure 3: Relationships between voice and canvassing behavior

Notes: Figure 3 shows binscatter plots of the post-treatment voice index and campaign intentions and behavior in the full sample. Data is divided in decile bins. Panel A shows the relationship between the voice index and the number of intended campaign activities. Panel B shows the relationship between the voice index and whether individuals conducted any canvassing according to the app data.

## 4 Results from the Natural Field Experiment

In this Section, we present the results from the natural field experiment. We first present the main results on the app data, intended campaign activities and then explore mechanisms based on the survey data.

### 4.1 Empirical Specification

We begin by estimating the effect of being exposed to any voice treatment. To maximize statistical power, we pool across all cross-randomized treatment arms.<sup>19</sup> In particular, we use the following specification:

$$Y_i = \beta_0 + \beta_1 \text{treatment}_i^{\text{pooled}} + \beta X_i + \varepsilon_i$$

where  $Y_i$  is the outcome of interest and  $\text{treatment}_i^{\text{pooled}}$  is an indicator for receiving any voice treatment.  $X_i$  includes all available control variables: age, gender, party membership dummy, years of party membership, high perceived prior voice dummy, campaign experience (dummies for all past activities in which a supporter states to have engaged in previously), and z-scored expected vote shares for the own party and the two main competitors. We display robust standard errors throughout.

We also examine whether the type of voice provided to supporters matters for their subsequent engagement in the political campaign. To estimate the effects of the intrinsic and instrumental voice treatments, we use the following specification:

$$Y_i = \delta_0 + \delta_1 \text{treatment}_i^{\text{instrumental}} + \delta_2 \text{treatment}_i^{\text{intrinsic}} + \delta X_i + \varepsilon_i$$

where  $\text{treatment}_i^{\text{instrumental}}$  is a dummy indicating whether the voice treatment was provided in instrumental terms and  $\text{treatment}_i^{\text{intrinsic}}$  is a dummy indicating whether the voice treatment was provided in intrinsic terms. To investigate whether the effect of the instrumental version of the voice treatment differs from the effect of the intrinsic voice treatment, we directly test  $\delta_1 = \delta_2$ . We use an analogous version of this specification to estimate the effects of the voice treatments with and without feedback.<sup>20</sup>

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<sup>19</sup>As specified in the pre-analysis plan, we also explore disaggregated effects of the different voice treatments below.

<sup>20</sup>We display fully disaggregated results in section A.1 of the Online Appendix.

## 4.2 Behavioral Outcome Data on Canvassing

We first examine the effect of being in any voice treatment on actual canvassing behavior. The estimates from the natural field experiment reveal that receiving any voice treatment significantly increases respondents' canvassing activity as measured through the party's smartphone application. The treatment increases individuals' propensity to canvass by 2.6 percentage points and the average number of doors canvassed by 1.2 (both  $p < 0.01$ ; Panel A of Table 2).<sup>21</sup> While these effects are relatively small in absolute terms, they are large given the low level of recorded canvassing activity in the control group (which is close to zero). The modest levels of engagement in the campaign could be a result of relatively low levels of popularity of the main candidate, but may also reflect that not all canvassers report their canvassing in the app. To the extent that there is under-reporting of canvassing uniformly across treatment arms, this would only result in an attenuation of treatment effects.

The results in Panel B of Table 2 indicate that the effects are particularly pronounced for party supporters in the instrumental voice treatment. The treatment effect on any canvassing and the number of canvassed doors are both about 50% larger for supporters in the instrumental voice treatment than for supporters in the intrinsic voice treatment (columns (1) and (2) in Panel B of Table 2). However, despite the large relative difference in treatment effects, the instrumental voice treatment and the intrinsic voice treatment are not significantly different from each other as a result of limited statistical power ( $p = 0.49$  and  $p = 0.53$ , respectively).

In Panel C of Table 2, we examine the effects of the voice treatment with and without feedback on supporters' engagement. We find no differential impact on canvassing behavior of the feedback treatment. While the point estimates tend to be somewhat larger for respondents from the feedback treatment, we are unable to reject any of the tests of equality of the two coefficients.

Given the observed treatment effects on real canvassing behavior, it is possible that receiving the opportunity to voice their opinions also affected other dimensions of supporters' intended campaign effort. We explore this possibility in the next subsection.

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<sup>21</sup>Estimating the specification without control variables does not change the magnitude or significance of the results substantially. The results on the extensive canvassing margin are also robust to not using control variables and to estimating non-linear Logit regressions instead of linear regressions with OLS (Online Appendix Tables A6 and A5, respectively).

Table 2: Main treatment effects

	App data		Survey data	
	(1) Any	(2) Doors (wins)	(3) # intended activities	(4) Voice index (z)
<b>Panel A: Main effects</b>				
Any voice treatment	0.026*** (0.007)	1.207*** (0.352)	0.209** (0.103)	0.082 (0.058)
<b>Panel B: Type of voice</b>				
Instrumental	0.030*** (0.010)	1.424*** (0.523)	0.240** (0.117)	0.134** (0.066)
Intrinsic	0.021** (0.009)	0.990** (0.462)	0.178 (0.119)	0.030 (0.065)
p(Instrumental = Intrinsic)	0.49	0.53	0.59	0.09
<b>Panel C: Feedback announcement</b>				
Feedback announcement	0.025** (0.010)	1.360** (0.541)	0.277** (0.118)	0.116* (0.067)
No feedback announcement	0.027*** (0.009)	1.057** (0.439)	0.145 (0.117)	0.050 (0.064)
p(Feedback = No feedback)	0.88	0.66	0.25	0.28
Control mean	0.00	0.10	2.42	-0.00
Number of Observations	1007	1007	964	955

*Notes:* Table 2 presents the main treatment effects with control variables. Panel A displays pooled treatment effects. Panel B displays heterogeneity by type of voice. Panel C displays heterogeneity by whether supporters saw the feedback announcement. Columns (1) and (2) show treatment effects on canvassing behavior measured using the smartphone application. Column (3) shows the impact on the number of planned campaign activities. Column (4) shows the impact on the voice index measured through the survey. All specifications include the following control variables: age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

### 4.3 Number of Intended Campaign Activities

Next, we examine the effects of the voice interventions on the overall number of intended campaign activities. While we only observe behavioral outcomes for canvassing, we ask individuals about their intentions to participate in a range of other campaign-related activities. Column (3) of Table 2 displays the treatment effect on the number of intended

campaign activities. We find that the intervention increases the intended number of activities by 0.21 ( $p < 0.05$ ), on average. This corresponds to an increase in the number of activities by approximately nine percent compared to a control group mean of 2.4 activities. This suggests that supporters broadly increased their intended campaign effort across a range of dimensions.

Columns (2) to (8) in Panel A of Appendix Table A7 decompose this effect by examining treatment effects on supporters' intentions to engage in a wide range of campaign activities. The effects on canvassing intentions (measured both at the extensive and the intensive margin) are positive with effect sizes mimicking those on observed, real canvassing behavior. However, due to higher control group means these are not statistically significant as the standard deviation of the outcomes are much smaller in the app data. We observe the largest treatment effects on supporters' intentions to participate in campaign booths and to convince friends and family members, with increases of 5.7 and 5.4 percentage points, respectively (both  $p < 0.10$ ).

In Panel B of Table 2, we show that the treatment effects on intended campaign activities tend to be somewhat larger for the instrumental voice treatment. However, the difference in estimated treatment effects between the instrumental and intrinsic voice treatments are never significantly different because of limited statistical power.

In Panel C of Table 2, we find that the treatment effect on the number of intended campaign activities is somewhat larger in the presence of the feedback treatment ( $\beta = 0.28$  vs  $\beta = 0.15$ ), yet the difference is not significantly different ( $p = 0.25$ ). Similarly, Appendix Table A7 shows that there are no significant differences between the voice treatment with and without feedback on supporters' intentions to participate in any of the different campaign activities.

Overall, our results suggest that the voice treatments increased supporters' willingness to participate and exert effort in multiple campaign dimensions beyond canvassing.

**Reconciling effect sizes** While the absolute effect sizes on canvassing intentions and behavior are comparable (close to approximately 2 percentage points), the relative effect sizes are much larger in the app data than in the survey data. One potential explanation for this finding is the presence of heterogeneous treatment effects. If treatment effects are stronger for respondents who are more inclined to engage in the party's campaign

based on their predetermined characteristics, and if participating in campaign activities is sufficiently costly (relative to simply stating the intention to participate), we may expect differences in effect sizes between survey-based intentions and actual behavior. In particular, we might observe higher levels of intended engagement, but not actual participation for the control group, while treated individuals with comparable characteristics are actually more likely to follow through with their intentions. This scenario is consistent to the observed pattern of relatively similar absolute treatment effect sizes and smaller relative effect sizes on supporters' intentions (when compared to the relative effect size on supporters' actual behavior). Indeed, we provide evidence in Section 4.6 that treatment effects for the app data and perceived voice are more pronounced for supporters with stronger pre-treatment perceived voice, i.e. supporters that are more likely to canvass to begin with.

The differences in effect sizes between the survey and app data can also be interpreted through the lens of the intention-behavior gap, i.e. people's failure to act on their intentions (Sheeran and Webb, 2016). The correlation between intentions and behavior is indeed significantly higher in the treatment group compared to the control group (Table A8). This is consistent with the idea that perceived voice is a potential determinant of whether supporters manage to translate their intended campaign effort into actual (costly) behavior. Alternatively, the difference could also reflect differential willingness to report canvassing activities in the party's smartphone app. Given that usage of the app was encouraged by the party and that it is costly to participants to use the app, we view this as a different form of costly effort.

#### **4.4 Mechanisms: Impact on Respondents' Perceptions**

To shed light on potential mechanisms through which the voice treatments may affect campaigning effort, we examine treatment effects on an index of perceived voice and its individual components, as well as the perceived effectiveness of the campaign. The voice index captures the extent to which party members feel valued by the party leadership and the extent to which members identify with the party (Akerlof and Kranton, 2005). This measure relates to a behavioral explanation for the observed increase in party supporters' engagement in response to the opportunity to voice their opinion: the psy-

chological utility party supporters receive from a better relationship with the party leadership (and vice versa the psychological utility cost party supporters may experience when they feel disconnected from the party and/or not valued by the party leadership). This type of psychological utility may reduce supporters' marginal cost of engaging in campaign-related activities. This potential explanation relates to work on social incentives in organizations (Ashraf and Bandiera, 2018).

In contrast to the above behavioral channel captured by the voice index, we also consider a more standard channel to explain party supporters' change in behavior: the voice treatments may impact supporters' marginal cost of effort by influencing supporters' beliefs about the effectiveness of the party's electoral campaign. This alternative channel is based on supporters' consequential motives and instrumental concerns. We measure these by eliciting supporters' perceived effectiveness of the campaign. This potential channel is closely related to the original ideas put forth by Hirschman (1970).

**Voice Index** Column (4) in Panel A of Table 2 presents the results of the pooled treatment effect analysis. The estimated effects on the voice index are positive but insignificant after controlling for pre-determined variables ( $\beta = 0.082, p = 0.16$ ).

While the average effects are not significant, Panel B of Table 2 shows that there is indeed a larger impact on supporters' perceived voice in case of the instrumental voice treatment (column (4) of Table 2). The treatment effect for the voice index is 0.13 standard deviations for the instrumental version and only 0.03 standard deviations for the intrinsic version of the voice treatment. This difference is significant at the 10% level. Panel C of Table 2 examines heterogeneity in the effects by feedback. Column 4 of Table 2 shows that the feedback treatment caused a significant increase in the voice index ( $\beta = 0.12, p < 0.1$ ) while the impact of the voice treatment without feedback is not significant ( $\beta = 0.05, p = 0.41$ ). The difference is not significantly different ( $p = 0.29$ ).

**Disaggregated Outcomes in the Voice Index** Panel B of Appendix Table A9 shows that such differences between the effects of the intrinsic and instrumental voice treatments also exist for two of the four index components, particularly on supporters' feeling of being heard in the party and supporters' perceived interest of the party in their



opinion.<sup>22</sup> This in turn suggests a potential role for mechanisms related to esteem and identity as drivers of treatment effects.

Overall, these results suggest that explicitly linking the elicitation of voice to an issue of high instrumental relevance, in our context to the objective to improve the effectiveness of the party's electoral campaign, can increase perceived voice.

**Perceived Effectiveness of the Campaign** We further test whether the treatment changed individuals' perceptions of the effectiveness of the party's campaign strategy, which could have affected supporters' decisions to exert effort during the campaign. It is conceivable that supporters believe that the fact that the party is eliciting feedback on topics to highlight during the electoral campaign or even information about supporters' personal preferences increases the overall quality and, hence, effectiveness of the campaign. However, our empirical analysis reveals an insignificant treatment effect on beliefs about campaign effectiveness of -0.07 standard deviations (Online Appendix Table A10). Similarly, the treatment effects of the instrumental and intrinsic version of the voice treatment are both negative, small, and insignificant (Panel B of Online Appendix Table A10). Taken together, this suggests that the observed effects on campaign behavior are not driven by an increase in the perceived effectiveness of the party's campaign strategy.

## 4.5 Mechanisms: Text data on voiced opinions

In this section, we analyze treatment effects on the text data consisting of the opinions party supporters voice in the open text box.

**Measurement and coding** We measure the voluntary provision of information through the text provided by supporters using the open text field which was part of all voice treatment conditions. Our main outcomes are a dummy taking value one if a respondent made any comment, a dummy taking value one if a nonsensical comment was provided, a dummy taking value one if a respondent made a constructive comment, and finally the

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<sup>22</sup>Differences in treatment effects exhibit a similar pattern for the other two components of the index, but the differences are not significant.

length of the written text as measured by the number of characters winsorized at the 99<sup>th</sup> percentile).<sup>23</sup>

**Specification** Empirically, we estimate the following equation among all respondents who received any voice treatment:<sup>24</sup>

$$Y_i = \phi_0 + \phi_1 treatment_i^{type} + \phi X_i + \varepsilon_i \quad (1)$$

where  $Y_i$  is either dummy whether a (specific type of) comment was provided or the length of the comment provided, and where  $treatment_i^{type}$  is a dummy indicating whether the supporter received a specific type of the voice treatment (either the instrumental version of the voice treatment or a voice treatment with an announcement of feedback).

**Results** Table 3 shows the treatment effects of the instrumental treatment (Panel A) and the feedback treatment (Panel B). The Table highlights that neither the instrumental treatment nor the feedback treatment affect the likelihood of making any comment or making a constructive comment. Respondents in the instrumental treatment are 2 percentage points less likely to make a nonsense comment ( $p < 0.05$ ), compared to a mean of 3 percent in the intrinsic voice treatment group. Moreover, anticipated feedback increases the length of the written text. Supporters that were randomly assigned to the feedback condition write, on average, 33 characters more compared to respondents in a treatment condition that did not include a feedback announcement ( $p < 0.05$ ). This suggests that the anticipation of feedback may help increase information flows in organizations by encouraging the rank and file to increase their willingness to share suggestions with the party leadership.

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<sup>23</sup>All of our results are robust, but estimated less precisely if we do not apply the winsorization.

<sup>24</sup>We cannot include supporters in the control group in this analysis as they were not given the opportunity to share their views.

Table 3: Effect of feedback on provided information

	(1) Any comment	(2) Nonsense comment	(3) Constructive comment	(4) Length (characters)
<b>Panel A: Type of voice</b>				
Instrumental	0.008 (0.037)	-0.020** (0.009)	0.026 (0.037)	10.895 (14.092)
Intrinsic group mean	0.50	0.03	0.36	98.16
<b>Panel B: Feedback announcement</b>				
Feedback announcement	0.022 (0.037)	-0.005 (0.009)	0.006 (0.036)	32.604** (13.645)
No feedback group mean	0.50	0.02	0.38	85.19
Number of Observations	672	672	672	672

Notes: Table 3 presents treatment effects on the extensive and intensive margins of provided comments. Panel A shows the effects of type of voice. Panel B shows the effects of the feedback announcement. The pure control group is not included as they were not asked for comments. Length of comment is winsorized at the 99<sup>th</sup> percentile. All specifications include the following control variables: age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## 4.6 Heterogeneous Treatment Effects

Finally, we examine heterogeneous treatment effects by members' perceived pre-treatment voice. Figure A2 shows the treatment effects on the app data (Panel A) and the voice index (Panel B) separately for respondents with above and below median pre-treatment voice. The figure highlights that treatment effects are more pronounced for respondents with above-median pre-treatment voice. These results suggest that a relatively light touch intervention might be most effective in influencing the behavior of party supporters who already perceive higher levels of voice and are potentially more marginal to participate in the campaign to begin with.

## 5 Conclusion

We conduct a natural field experiment with a major European party to test whether giving voice to party members increases their subsequent engagement in the party's campaign. In our experiment, the party provides a random subset of party supporters the

opportunity to voice their opinions. We show that giving more opportunities for supporters to voice their opinion increases their engagement in the campaign as measured using behavioral data from the party's smartphone app. Survey data reveals that our voice treatment increases other margins of intended campaign effort. Finally, our survey data also suggests that our treatment effects operate through members' increased perceived voice and agency within the party rather than through increases in the perceived effectiveness of the campaign.

Our evidence has far-reaching implications for the design of vertical relationships in political organizations. Our results suggest that political parties can increase their members' willingness to exert effort for the organization by implementing policies that increase their voice. Future research which tests the effects of more heavy-handed or repeated interventions will help provide further important insights for the design of vertical relationships in organizations. Future work also needs to consider how the dynamic effects of voice depend on an organization's responsiveness to voiced opinions. Finally, understanding the role of voice in other types of organisations is a fruitful avenue for future research.

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## A Appendix Tables

Table A1: Pooled balance table

	Control	Treatment	$\Delta$	$p(\Delta = 0)$
<u>Individual level characteristics</u>				
Female	0.21	0.20	-0.01	0.68
Age	48.10	47.21	-0.89	0.44
Party member	0.94	0.95	0.01	0.49
Years of party membership (winsorized)	15.12	15.76	0.64	0.53
Perceived voice within party (1 - 5 Likert scale)	3.11	3.23	0.12	0.15
Expected vote share own party (z)	0.01	-0.11	-0.12	0.06
Expected vote share competitor party 1 (z)	-0.00	0.01	0.01	0.91
Expected vote share competitor party 2 (z)	0.00	-0.04	-0.05	0.51
<u>Prior experience</u>				
Any experience campaigning	0.77	0.78	0.01	0.85
Experience: door canvassing	0.49	0.52	0.03	0.42
Experience: # days door canvassing (winsorized)	13.79	13.65	-0.13	0.95
Experience: sticking poster	0.59	0.64	0.04	0.19
Experience: campaign booth	0.70	0.69	-0.02	0.61
Experience: social media	0.42	0.47	0.05	0.11
Experience: phone canvassing	0.19	0.19	0.01	0.75
Experience: convince friends	0.67	0.66	-0.01	0.77
Experience: other	0.12	0.14	0.02	0.47

Notes: Table A1 presents a balance table for the pooled treatment variable. P-value of the joint test of insignificance is 0.21.

Table A2: Balance table by instrumental treatment

	(1) Control	(2) Instrumental	(3) Intrinsic	(4) p(Inst=Cont)	(5) p(Intr=Cont)	(6) p(Intr=Inst)
<u>Individual level characteristics</u>						
Female	0.21	0.20	0.20	0.73	0.72	0.98
Age	48.10	48.38	46.03	0.84	0.13	0.08
Party member	0.94	0.97	0.93	0.03	0.53	0.01
Years of party membership (winsorized)	15.12	15.82	15.71	0.55	0.62	0.93
Perceived voice within party (1 - 5 Likert scale)	3.11	3.20	3.27	0.39	0.10	0.44
Expected vote share own party (z)	0.01	-0.09	-0.14	0.20	0.04	0.43
Expected vote share competitor party 1 (z)	-0.00	0.03	-0.01	0.70	0.88	0.58
Expected vote share competitor party 2 (z)	0.00	-0.11	0.02	0.15	0.83	0.11
<u>Prior experience</u>						
Any experience campaigning	0.77	0.79	0.77	0.67	0.91	0.59
Experience: door canvassing	0.49	0.52	0.52	0.47	0.51	0.94
Experience: # days door canvassing (winsorized)	13.79	11.54	15.78	0.36	0.46	0.08
Experience: sticking poster	0.59	0.66	0.61	0.07	0.66	0.16
Experience: campaign booth	0.70	0.70	0.68	0.86	0.49	0.60
Experience: social media	0.42	0.49	0.45	0.07	0.37	0.35
Experience: phone canvassing	0.19	0.18	0.21	0.80	0.43	0.29
Experience: convince friends	0.67	0.67	0.65	0.94	0.55	0.50
Experience: other	0.12	0.15	0.12	0.28	0.89	0.34

Notes: Table A2 presents a balance table by type of voice.

Table A3: Balance table by feedback treatment

	(1) Control	(2) Feedback	(3) No feedback	(4) p(Feed=Cont)	(5) p(No Feed=Cont)	(6) p(Feed=No Feed)
<u>Individual level characteristics</u>						
Female	0.21	0.20	0.19	0.85	0.60	0.74
Age	48.10	47.19	47.23	0.50	0.51	0.98
Party member	0.94	0.95	0.95	0.52	0.57	0.94
Years of party membership (winsorized)	15.12	16.64	14.92	0.20	0.86	0.15
Perceived voice within party (1 - 5 Likert scale)	3.11	3.24	3.23	0.19	0.24	0.88
Expected vote share own party (z)	0.01	-0.13	-0.10	0.08	0.11	0.75
Expected vote share competitor party 1 (z)	-0.00	-0.03	0.04	0.69	0.60	0.33
Expected vote share competitor party 2 (z)	0.00	-0.09	0.00	0.23	1.00	0.23
<u>Prior experience</u>						
Any experience campaigning	0.77	0.80	0.75	0.35	0.57	0.13
Experience: door canvassing	0.49	0.55	0.49	0.15	0.97	0.14
Experience: # days door canvassing (winsorized)	13.79	14.57	12.77	0.76	0.69	0.46
Experience: sticking poster	0.59	0.65	0.62	0.11	0.49	0.35
Experience: campaign booth	0.70	0.73	0.65	0.46	0.12	0.02
Experience: social media	0.42	0.46	0.48	0.24	0.12	0.74
Experience: phone canvassing	0.19	0.19	0.19	0.77	0.79	0.97
Experience: convince friends	0.67	0.69	0.63	0.60	0.31	0.12
Experience: other	0.12	0.14	0.13	0.44	0.63	0.77

Notes: Table A3 presents a balance table by feedback announcement.

Table A4: Correlation between canvassing intentions and actual canvassing

	Any door		Doors (wins)	
	(1)	(2)	(3)	(4)
Intention: Any canvassing	0.057*** (0.013)	0.053*** (0.014)	2.967*** (0.751)	2.646*** (0.735)
Control mean	0.00	0.00	0.10	0.10
Number of Observations	964	964	964	964
Control variables		X		X

Notes: Table A4 presents the correlations between a dummy indicating any canvassing intention and observed canvassing behavior. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A5: Treatment effect on any doors: Logit estimation

	Any canvassing (app data)	
	(1)	(2)
<b>Panel A: Main effects</b>		
Any voice treatment	2.327** (1.027)	2.359** (1.106)
Marginal effect	0.030	0.033
<b>Panel B: Type of voice</b>		
Instrumental	2.419** (1.048)	2.574** (1.137)
Intrinsic	2.225** (1.057)	2.154* (1.132)
Marginal effect: Instrumental	0.100	0.092
Marginal effect: Intrinsic	0.098	0.077
p(Instrumental = Intrinsic)	0.67	0.37
<b>Panel C: Feedback announcement</b>		
Feedback	2.345** (1.052)	2.339** (1.145)
No feedback	2.309** (1.052)	2.379** (1.117)
Marginal effect: Instrumental	0.101	0.083
Marginal effect: Intrinsic	0.098	0.086
p(Feedback = No feedback)	0.94	0.93
Control mean	0.00	0.00
Number of Observations	1007	1007
Controls		X

Notes: Table A5 presents the main treatment effects estimated using logit regressions. Panel A displays pooled treatment effects. Panel B displays heterogeneity by type of voice. Panel C displays heterogeneity by whether supporters saw the feedback announcement. The table displays logit coefficients and marginal effects. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A6: Main treatment effects without control variables

	App data		Survey data	
	(1) Any	(2) Doors (wins)	(3) # intended activities	(4) Voice index (z)
<b>Panel A: Main effects</b>				
Any voice treatment	0.027*** (0.007)	1.288*** (0.362)	0.327*** (0.119)	0.120* (0.068)
<b>Panel B: Type of voice</b>				
Instrumental	0.030*** (0.010)	1.425*** (0.520)	0.388*** (0.138)	0.177** (0.078)
Intrinsic	0.024** (0.009)	1.150** (0.485)	0.265* (0.137)	0.062 (0.079)
p(Instrumental = Intrinsic)	0.67	0.69	0.37	0.15
<b>Panel C: Feedback announcement</b>				
Feedback announcement	0.027*** (0.010)	1.486*** (0.550)	0.401*** (0.138)	0.145* (0.079)
No feedback announcement	0.026*** (0.010)	1.097** (0.455)	0.258* (0.137)	0.096 (0.078)
p(Feedback = No feedback)	0.94	0.58	0.30	0.54
Control mean	0.00	0.10	2.42	-0.00
Number of Observations	1007	1007	964	955

Notes: Table A6 presents the main treatment effects without control variables. Panel A displays pooled treatment effects. Panel B displays heterogeneity by type of voice. Panel C displays heterogeneity by whether supporters saw the feedback announcement. Columns (1) and (2) show treatment effects on canvassing behavior measured using the smartphone application. Column (3) shows the impact on the number of planned campaign activities. Column (4) shows the impact on the voice index measured through the survey. All specifications do not include control variables. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A7: Treatment effects on overall campaign activity

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	# activities	Campaign booth	Phone canvassing	Stick posters	Convince friends	Online campaigning	Any canvassing	# days canvassing
<b>Panel A: Main effects</b>								
Any voice treatment	0.209** (0.103)	0.057* (0.030)	0.009 (0.020)	0.016 (0.029)	0.054* (0.028)	0.007 (0.027)	0.021 (0.028)	0.336 (0.344)
<b>Panel B: Type of voice</b>								
Instrumental	0.240** (0.117)	0.056 (0.035)	0.027 (0.023)	0.013 (0.034)	0.048 (0.032)	-0.014 (0.031)	0.034 (0.032)	0.252 (0.393)
Intrinsic	0.178 (0.119)	0.057 (0.035)	-0.008 (0.023)	0.018 (0.034)	0.060* (0.031)	0.028 (0.030)	0.007 (0.032)	0.420 (0.416)
p(Instrumental = Intrinsic)	0.59	0.98	0.12	0.89	0.68	0.18	0.42	0.69
<b>Panel C: Feedback announcement</b>								
Feedback announcement	0.277** (0.118)	0.057 (0.035)	0.016 (0.023)	0.025 (0.034)	0.055* (0.032)	0.019 (0.032)	0.017 (0.032)	0.077 (0.394)
No feedback announcement	0.145 (0.117)	0.056 (0.035)	0.003 (0.023)	0.007 (0.034)	0.052* (0.032)	-0.004 (0.030)	0.024 (0.032)	0.577 (0.417)
p(Feedback = No feedback)	0.25	0.98	0.58	0.60	0.92	0.45	0.84	0.25
Control mean	2.42	0.56	0.12	0.39	0.70	0.47	0.31	2.24
Number of Observations	964	964	964	964	964	964	964	961

Notes: Table A7 presents the main treatment effects with control variables. Panel A displays pooled treatment effects. Panel B displays heterogeneity by type of voice. Panel C displays heterogeneity by whether supporters saw the feedback announcement. Column (1) presents the effects on the number of planned campaign activities. Columns (2) to (7) present impacts on the individual planned activities. Column (8) presents the effects on the number of planned canvassing days. All regressions include the following control variables: age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A8: Correlation of canvassing intentions and behavior by treatment status

	Any door		Doors (wins)	
	(1) Treatment	(2) Control	(3) Treatment	(4) Control
Intention: Any canvassing	0.079*** (0.019)	0.010 (0.010)	3.889*** (0.995)	0.317 (0.316)
Group outcome mean	0.03	0.00	1.38	0.10
Number of Observations	672	335	672	335
p-value(control=treatment)	0.00		0.00	

Notes: Table A8 presents the correlations between canvassing intentions and canvassing behavior by treatment status. Columns (1) and (2) show correlations between canvassing intentions and a dummy for any canvassing activity. Columns (3) and (4) show correlations between canvassing intentions and the number of canvassed doors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A9: Treatment effects on supporters' perceptions

	(1) Voice index	(2) Diff through engagement	(3) Being heard	(4) Feels connection	(5) Party interested
<b>Panel A: Main effects</b>					
Any voice treatment	0.082 (0.058)	0.092 (0.061)	0.041 (0.061)	0.084 (0.064)	0.041 (0.057)
<b>Panel B: Type of voice</b>					
Instrumental	0.134** (0.066)	0.123* (0.069)	0.106 (0.072)	0.097 (0.072)	0.096 (0.068)
Intrinsic	0.030 (0.065)	0.062 (0.070)	-0.024 (0.069)	0.070 (0.074)	-0.013 (0.065)
p(Instrumental = Intrinsic)	0.09	0.35	0.07	0.69	0.11
<b>Panel C: Feedback announcement</b>					
Feedback announcement	0.116* (0.067)	0.105 (0.071)	0.069 (0.071)	0.092 (0.072)	0.100 (0.067)
No feedback announcement	0.050 (0.064)	0.080 (0.068)	0.015 (0.070)	0.076 (0.073)	-0.013 (0.065)
p(Feedback = No feedback)	0.28	0.70	0.44	0.82	0.09
Control mean	-0.00	-0.00	-0.00	-0.00	-0.00
Number of Observations	955	955	955	955	955

Notes: Table A9 presents the treatment effects on supporters' perceptions. Panel A displays pooled treatment effects. Panel B displays heterogeneity by type of voice. Panel C displays heterogeneity by whether supporters saw the feedback announcement. Column (1) shows treatment effects on a voice index. Columns (2) to (5) show treatment effects on the index components. All specifications include the following control variables: age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$



Table A10: Treatment effects on perceived campaign effectiveness

	Effective campaign (z)
	(1)
<b>Panel A: Main effects</b>	
Any voice treatment	-0.072 (0.068)
<b>Panel B: Type of voice</b>	
Instrumental	-0.084 (0.076)
Intrinsic	-0.060 (0.080)
p(Instrumental = Intrinsic)	0.76
<b>Panel C: Feedback announcement</b>	
Feedback announcement	-0.074 (0.080)
No feedback announcement	-0.071 (0.077)
p(Feedback = No feedback)	0.97
Control mean	0.00
Number of Observations	955

*Notes:* Table A10 presents the treatment effects on respondents' perceptions of the effectiveness of the campaign. Panel A displays pooled treatment effects. Panel B displays heterogeneity by type of voice. Panel C displays heterogeneity by whether supporters saw the feedback announcement. Column (2) includes the following control variables: age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A11: Effect of feedback on provided information - no control variables

	(1)	(2)	(3)	(4)
	Any comment	Nonsense comment	Constructive comment	Length (characters)
<b>Panel A: Type of voice</b>				
Instrumental	0.024 (0.039)	-0.021** (0.010)	0.049 (0.037)	12.652 (14.932)
Intrinsic group mean	0.50	0.03	0.36	98.16
<b>Panel B: Feedback announcement</b>				
Feedback announcement	0.024 (0.039)	-0.008 (0.010)	0.008 (0.038)	39.356*** (14.945)
No feedback group mean	0.50	0.02	0.38	85.19
Number of Observations	672	672	672	672

*Notes:* Table A11 presents treatment effects on the extensive and intensive margins of provided comments. Panel A shows the effects of type of voice. Panel B shows the effects of the feedback announcement. The pure control group is not included as they were not asked for comments. Length of comment is winsorized at the 99<sup>th</sup> percentile. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A12: Effects on comment mood

	Mood in comment	
	(1)	(2)
<b>Panel A: Type of voice</b>		
Instrumental	-0.102** (0.048)	-0.087* (0.048)
Intrinsic group mean	1.94	1.94
<b>Panel B: Feedback announcement</b>		
Feedback announcement	-0.015 (0.048)	-0.008 (0.050)
No feedback group mean	1.90	1.90
Number of Observations	335	335
Controls		X

*Notes:* Table A12 presents the treatment effects of the feedback treatment on the content of provided information. Panel A shows the effects of type of voice. Panel B shows the effects of the feedback announcement. The dependent variable is a categorical variable indicating the mood of the comment (1 being negative, 2 being neutral, and 3 being positive). The pure control group is not included as they were not asked for feedback. Column (2) includes the following control variables: age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## A.1 Fully disaggregated regressions

Table A13: Balance table - disaggregated

	Control	Instrumental	Instrumental + Feedback	Intrinsic	Intrinsic + Feedback	p-value joint significance
<u>Individual level characteristics</u>						
Female	0.21	0.21	0.19	0.17	0.22	0.80
Age	48.10	48.38	48.38	46.01	46.04	0.47
Years of party membership (winsorized)	15.12	14.63	17.10	15.22	16.19	0.55
Years of party membership (winsorized)	15.12	14.63	17.10	15.22	16.19	0.55
Perceived voice within party (1 - 5 Likert scale)	3.11	3.24	3.15	3.21	3.33	0.40
Expected vote share own party (z)	0.01	-0.07	-0.11	-0.14	-0.14	0.32
Expected vote share competitor party 1 (z)	-0.00	0.04	0.01	0.04	-0.07	0.77
Expected vote share competitor party 2 (z)	0.00	-0.06	-0.16	0.07	-0.03	0.35
<u>Prior experience</u>						
Any experience campaigning	0.77	0.75	0.83	0.76	0.78	0.43
Experience: door canvassing	0.49	0.46	0.59	0.52	0.51	0.19
Experience: # days door canvassing (winsorized)	13.79	10.31	12.88	15.37	16.19	0.45
Experience: sticking poster	0.59	0.65	0.68	0.59	0.63	0.32
Experience: campaign booth	0.70	0.64	0.76	0.66	0.70	0.14
Experience: social media	0.42	0.47	0.51	0.48	0.42	0.29
Experience: phone canvassing	0.19	0.18	0.18	0.21	0.21	0.88
Experience: convince friends	0.67	0.63	0.72	0.63	0.66	0.44
Experience: other	0.12	0.14	0.16	0.13	0.12	0.79

Notes: Table A13 presents a disaggregated balance table.

Table A14: Main treatment effects - disaggregated

	App data				Survey data	
	(1) Any	(2) Any	(3) Doors (wins)	(4) Doors (wins)	(5) Voice index (z)	(6) Voice index (z)
Treatment: instrumental	0.037** (0.015)	0.039*** (0.015)	1.410** (0.694)	1.452** (0.678)	0.187** (0.092)	0.130* (0.074)
Treatment: instrumental + feedback	0.022* (0.013)	0.021* (0.013)	1.442* (0.769)	1.412* (0.774)	0.165* (0.100)	0.146* (0.084)
Treatment: intrinsic	0.015 (0.011)	0.014 (0.011)	0.766 (0.565)	0.639 (0.571)	0.003 (0.099)	-0.028 (0.079)
Treatment: intrinsic + feedback	0.033** (0.015)	0.028** (0.014)	1.529** (0.775)	1.293* (0.724)	0.125 (0.095)	0.088 (0.079)
Control mean	0.00	0.00	0.10	0.10	-0.00	-0.00
Number of Observations	1007	1007	1007	1007	955	955
Controls		X		X		X

Notes: Table A14 presents the main treatment effects with control variables. Columns (1) to (4) show treatment effects on canvassing behavior measured using the smartphone application. Columns (5) and (6) show the impact on the voice index measured through the survey. Even columns include the following control variables: age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A15: Treatment effects on overall campaign activity - disaggregated

	(1) # activities	(2) Campaign booth	(3) Phone canvassing	(4) Stick posters	(5) Convince friends	(6) Online campaigning	(7) Any canvassing	(8) # days canvassing
Treatment: instrumental	0.225 (0.139)	0.045 (0.043)	0.004 (0.027)	0.009 (0.041)	0.066* (0.038)	-0.016 (0.036)	0.049 (0.039)	0.394 (0.494)
Treatment: instrumental + feedback	0.270* (0.145)	0.073* (0.042)	0.054* (0.029)	0.019 (0.043)	0.030 (0.039)	-0.008 (0.040)	0.017 (0.040)	0.009 (0.507)
Treatment: intrinsic	0.074 (0.147)	0.071* (0.042)	0.004 (0.029)	0.005 (0.042)	0.040 (0.039)	0.008 (0.036)	0.000 (0.040)	0.818 (0.547)
Treatment: intrinsic + feedback	0.307** (0.140)	0.047 (0.043)	-0.018 (0.026)	0.034 (0.042)	0.083** (0.037)	0.046 (0.038)	0.022 (0.040)	0.286 (0.473)
Control mean	2.42	0.56	0.12	0.39	0.70	0.47	0.31	2.24
Number of Observations	964	964	964	964	964	964	964	961

Notes: Table A15 presents the main treatment effects with control variables. Column (1) presents the effects on the number of planned campaign activities. Columns (2) to (7) present impacts on the individual planned activities. Column (8) presents the effects on the number of planned canvassing days. All regressions include the following control variables: include age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

Table A16: Effect on perceptions- disaggregated

	Voice index		Diff through engagement		Being heard		Feels connection		Party interested	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treatment: instrumental	0.187** (0.092)	0.126* (0.074)	0.198** (0.089)	0.140* (0.079)	0.144 (0.098)	0.090 (0.085)	0.109 (0.089)	0.081 (0.083)	0.138 (0.096)	0.086 (0.080)
Treatment: instrumental + feedback	0.165* (0.100)	0.143* (0.084)	0.144 (0.099)	0.105 (0.088)	0.129 (0.103)	0.124 (0.091)	0.161* (0.089)	0.116 (0.086)	0.088 (0.105)	0.106 (0.089)
Treatment: intrinsic	0.003 (0.099)	-0.026 (0.078)	0.053 (0.099)	0.019 (0.083)	-0.037 (0.098)	-0.061 (0.087)	0.084 (0.096)	0.072 (0.090)	-0.091 (0.101)	-0.114 (0.081)
Treatment: intrinsic + feedback	0.125 (0.095)	0.090 (0.078)	0.156* (0.095)	0.107 (0.085)	0.051 (0.095)	0.016 (0.083)	0.082 (0.093)	0.069 (0.088)	0.105 (0.093)	0.094 (0.076)
Control mean	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00	-0.00
Number of Observations	955	955	955	955	955	955	955	955	955	955
Controls		X		X		X		X		X

Notes: Table A16 presents the treatment effects on supporters' perceptions. Columns (1) and (2) show treatment effects on a voice index. Columns (3) to (10) show treatment effects on the index components. Even columns include the following control variables: age, gender, membership dummy, years of party membership, above median perceived voice dummy, campaign experience (dummies for all past activities), and z-scored expectations for the vote shares of the own party and the two main competitors. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

## B Appendix Figures

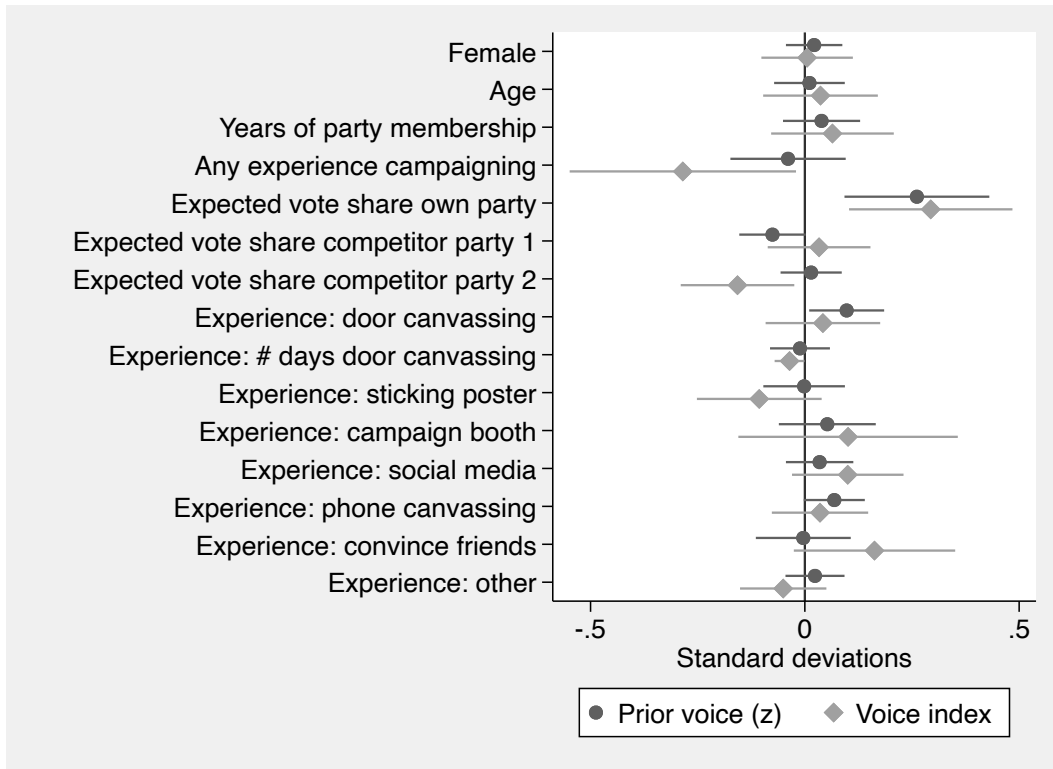
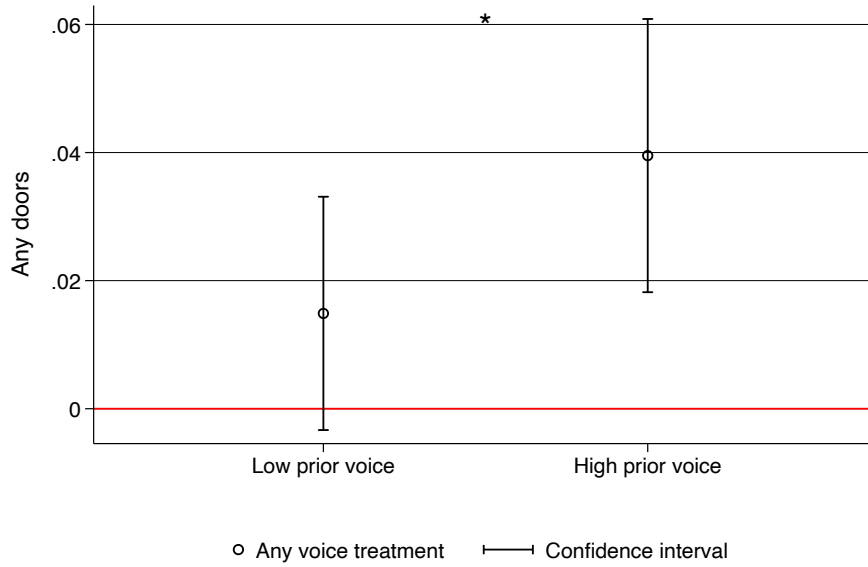


Figure A1: Correlates of perceived voice

Notes: Figure A1 presents the regression coefficients of a regression of perceived voice (z-scored) on all available pre-determined variables. All independent variables are standardized. Prior voice (z) is the standardized measure of the question described in Figure 2. The voice index is an index of four questions measured after treatment administration. The sample for the voice index regression is restricted to the control group. Bars represent 95% confident intervals.

### Panel A: Impact on canvassing activity



### Panel B: Impact on voice index

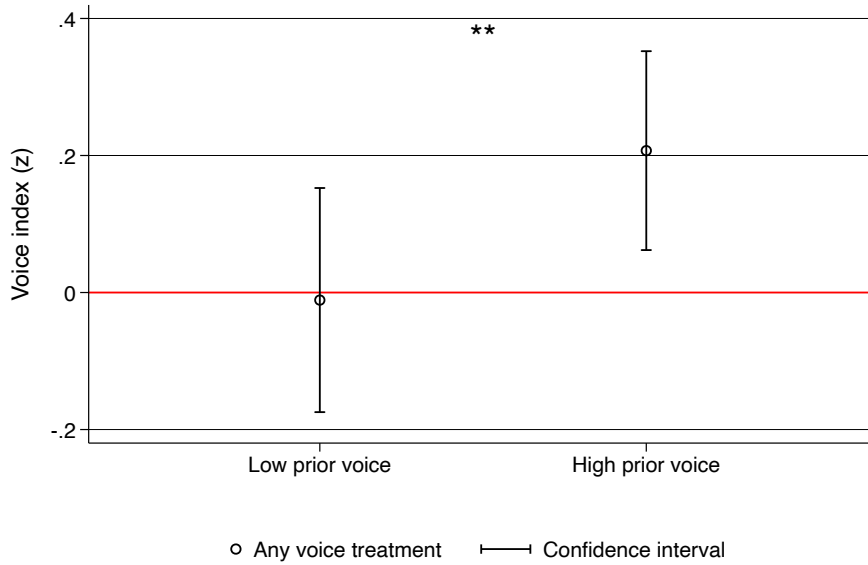


Figure A2: Heterogeneous effects by prior voice

Notes: Figure A2 presents the impacts of the treatment by prior voice. High prior voice indicates above median prior voice (the top two categories displayed in Figure 2). Panel A shows treatment effects on canvassing activity. Panel B shows impacts on the voice index. All available pre-determined variables are included as controls. Bars represent 95% confident intervals. Stars indicate significance levels of a test of equality of treatment effects across the two groups. \*  $p < 0.10$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$

# Survey instrument

- **Introduction**

Welcome,

we are conducting a short survey among our supporters to plan our election campaign. Your participation helps us to use our campaign resources optimally. We will treat your answers confidentially. The survey only takes 5 minutes.

Thank you very much for your help!

- **Sex**

What is your sex?

- **Age**

How old are you?

- **Party member**

Are you a member of [party name] party?

- **Years of party membership** (asked if respondent is party member)

For how many years have you been a member of [party name] party?

- **Campaigning experience**

Have you ever campaigned for the [party name] in the past?

- **Prior campaigning experience: margins**

In which election campaign activities have you participated at least once? Please select all that apply.

Canvassing

Sticking posters

Participate in campaign booth

Online advertisements for the party (e.g. sharing campaign materials on social media)

Call supporters

Talk to family, friends and acquaintances about the [party name] election program

Other

- **Canvassing: Intensive Margin**

On how many days did you go from door to door for [party name] in the past?

- **Canvassing workshop**

Have you ever participated in a canvassing training workshop?

- **Pre-treatment belief about voice**

Do you feel that your opinion is heard within the party?



- **Perceived vote shares**

What do you think: How many percent will the following parties receive in the national election on [date]?

Party name 1

Party name 2

Party name 3

- **Treatment: Instrumental**

Your opinion is very important to us. We are particularly interested in which topics seem important to you based on your experience in your constituency. We would therefore like to ask you a few questions. Your answers help us to make the election campaign more effective.

Environment, nature and climate protection

Economy

Internal security

Health and care

Work and social policies

Digitization

Education and Research

Budget, Finance and Taxes

Foreign Policy and Security Policy

Would you like to tell us more about which issues we should particularly emphasize in the election campaign? [open-text box]

- **Treatment: Instrumental + Feedback**

Your opinion is very important to us. We are particularly interested in which topics seem important to you based on your experience in your constituency. We would therefore like to ask you a few questions. Your answers help us to make the election campaign more effective.

After the completion of the survey, we will send you a summary of the results.

What do you think: How much should we emphasize the following issues in the current national election campaign? Environment, nature and climate protection

Economy

Internal security

Health and care

Work and social policies

Digitization

Education and Research

Budget, Finance and Taxes

Foreign Policy and Security Policy

Would you like to tell us more about which issues we should particularly emphasize in the election campaign? After the completion of the survey, we will send you

a summary of the results. [open-text box]

- **Treatment: Intrinsic**

Your opinion is very important to us. We are particularly interested in which topics are close to your heart. We would therefore like to ask you a few questions.

How much do you personally care about the following topics?

Environment, nature and climate protection

Economy

Internal security

Health and care

Work and social policies

Digitization

Education and Research

Budget, Finance and Taxes

Foreign Policy and Security Policy

Would you like to tell us more about which topics are particularly close to your heart? [open-text box]

- **Treatment: Intrinsic + Feedback**

Your opinion is very important to us. We are particularly interested in which topics are close to your heart. We would therefore like to ask you a few questions.

After the completion of the survey, we will send you a summary of the results.

How much do you personally care about the following topics?

Environment, nature and climate protection

Economy

Internal security

Health and care

Work and social policies

Digitization

Education and Research

Budget, Finance and Taxes

Foreign Policy and Security Policy

Would you like to tell us more about which topics are particularly close to your heart? After the completion of the survey, we will send you a summary of the results. [open-text box]

- **Intended campaigning experience: margins**

How do you intend to contribute to the current election campaign?

Canvassing

Sticking posters

Participate in campaign booth

Online advertisements for the party (e.g. sharing campaign materials on social media)

Call supporters

Talk to family, friends and acquaintances about the [partyname] election program

Other

- **Intensive margin** (asked if extensive margin is yes)

On how many days do you plan to canvass during this election campaign?

- **Post-treatment beliefs**

To what extent do you agree with each of the following statements?

I can make a difference through my involvement in [partyname].

I feel connected to [partyname].

My opinion is being taken into account to improve the party's election campaign.

I have the feeling that [partyname] is interested in my opinion.

The [partyname] has an effective campaigning strategy.

- **Debrief** Thank you very much for your participation