Does Voice Increase Political Engagement? Evidence From a Natural Field Experiment*

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November 1, 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 subsequent engagement in the party's campaign. In our experiment a random subset of party supporters are asked for their opinions on the importance of different topics either (i) in the context of improving electoral success of the campaign, or (ii) for them personally. We show that giving more opportunities to voice opinions to supporters increases their engagement in the campaign as measured using behavioral data from the party's smartphone application. Survey data reveals that our voice treatment also increases other margins of campaign effort as well as perceived voice. The effects on campaign effort and perceived voice are driven by respondents asked to give their opinion about ways to improve the electoral campaign. Our evidence highlights that parties can increase their members' 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

Support for democratic values is declining in Western countries (Pharr and Putnam, 2018) and democratic backsliding is on the rise on a global level (Lührmann and Lindberg, 2019; Mechkova et al., 2017). The fraction of the population supporting anti-democratic, populist, and extremist parties has increased over the last decades (Georgiadou et al., 2018), while major parties have lost a large fraction of their members (Biezen and Poguntke, 2014). Yet, modern democracies' success relies on well-functioning parties, which manage to represent their members' and voters' interests. Political parties ability to fulfil this critical role depends on their members' engagement and motivation. When party members feel that their party is not responsive to members' views, they may feel discouraged from further engaging and may consequently exit the party (Hirschman, 1970). In the light of this challenge, organizations such as political parties can implement policies aiming to increase their members' voice. If successful, members may feel more heard and valued, and thus become more active.

In this paper, we test whether giving voice to supporters of a major European party affects their engagement in the party's campaign using a natural field experiment. In our experiment a random subset of party supporters is assigned to receive the opportunity to voice their opinions. 50% of treated party supporters are asked for their opinions on the importance of different topics in the context of improving the electoral success of the campaign (instrumental voice treatment), while the remainder of treated party supporters are asked for their opinions on the importance of different topics for them personally (intrinsic voice treatment). On top of this, we cross-randomize whether members are informed that feedback will be provided 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 campaign effort and behavioral data collected via the party's smartphone application.

We provide several novel stylized facts about the relationship between voice and political engagement. First, the survey data shows that a large fraction of party supporters feel that they are not 'being heard' by their party. Moreover, within the control group, only 54% of supporters indicate that they can make a difference through their involvement and only 24% 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 contribute to 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, using experimental treatments from the natural field experiment, we show that giving supporters the opportunity to voice their opinions increases supporters' campaign effort. Data from the party's smartphone application reveals an increase in the likelihood of canvassing by 2.5 percentage points ($p < 0.01$). This effect is most pronounced among supporters who received a version of the voice treatment which was designed to highlight the instrumental purpose of why the party provided supporters with an opportunity to express their views: to learn more about supporters' views on how to improve the effectiveness of the electoral campaign based on the experiences made in their local constituency. Moreover, survey data indicates that the voice treatment also leads to an increase in other margins of campaign effort. Party supporters in the voice treatment, on average, plan to increase the total number of campaign activities by 0.21 ($p < 0.05$), corresponding to a 10 percent increase relative to a control mean of 2.42 activities in the control group.

Fourth, while we cannot detect significant differences in the treatment effects of the intrinsic voice treatment and the instrumental voice treatment, the point estimates for the instrumental voice treatment are 50% larger. This suggests that the type of voice provided to party supporters might have important consequences for spurring subsequent engagement. The feedback treatment also allows us to test whether giving voice is more effective in increasing campaign effort when supporters anticipate feedback on the input provided. Our estimates show that differences by anticipated feedback are only relatively muted on average.

Fifth, using rich post-treatment data we shed light on the role of potential mechanisms through which the voice treatments could plausibly affect engagement. We show that our voice treatments positively impact supporters' perceptions of the party's inter-

est in supporters' views and their level of identification with the party, especially for supporters exposed to the voice treatment in which members are offered an opportunity to provide input into the campaign (instrumental treatment). At the same time, the voice treatments do not appear to systematically change supporters' beliefs about the effectiveness of the party's electoral campaign strategy. Our findings are thus more consistent with a narrative according to which providing an opportunity to voice opinions increases supporters' engagement via an increase in supporters' perceived esteem from the party (Akerlof, 2017) as opposed to a change in perceived effectiveness.

Sixth, and finally, we analyze text data consisting of the opinions party supporters voice in the open text box. Fifty percent of supporters give voluntary input in the open-ended text box where members can voice their opinion. This in turn indicates that a large fraction of members indeed has a demand for voice. This text data also allows us to shed light on mechanisms by uncovering potential differences in the voiced opinions across the different treatment arms. We study treatment differences on the likelihood of making any comment, hand-coded data on whether the comment makes sense, is constructive, and the length of the written text. We find that neither the instrumental treatment nor the feedback treatment affect the likelihood of making any comment or making a constructive comment. Yet, the instrumental treatment decreases non-sensical responses and anticipated feedback increases the length of the written text. 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.

Our evidence has implications for the design of vertical relationships 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 first insights on how providing opportunities to voices opinions may be most effective in shaping both perceived agency and eventually effort choices. Providing members with opportunities to voice their opinion on issues with high instrumental relevance might be a promising avenue for increasing motivations to contribute to the success of organisations.

Our paper builds on Hirschman's seminal work on possible responses to organizational decline. Hirschman (1970) introduced the idea that in the face of the in-satisfactory

performance of an 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.[1] Our findings highlight that even a small one-time intervention has sizeable effects on engagement in the party's campaign.

Our study contributes to a growing body of 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).[2] We contribute to this literature by providing a new perspective on political engagement. We focus on the vertical relationship between the leadership of a political organization and its members. Our evidence highlights that the extent to which the rank and file receive opportunities to communicate what their concerns and preferences are to the party leadership has important implications for their motivation.

Our paper also 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 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.[3]

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

[1] 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.

[2] Our work is also related to a literature on the persuasive effects of canvassing (Kalla and Broockman, 2017; Pons, 2018).

[3] Recent related work sheds light on the role of mission in shaping effort choices in organizations (Cassar and Meier, 2018; Khan, 2021)

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).[4]

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.

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 takes part in the canvassing campaign.

[4]This is related to theoretical work on the role of esteem in shaping value formation (Akerlof, 2017).

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. 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.[5] 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 saw the treatment screen. This corresponds to a response rate of 8 percent. 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 15.7 years. 78% of the respondents have some experience with campaign activities, with organizing campaign booths and convincing friends being the most common activities. 51% have previous experience in canvassing. This makes our sample substantially younger and more active than the average party supporter.

Pre-registration The analysis was pre-registered at the AsPredicted registry before the start of the data collection (`https://aspredicted.org/v5ec6.pdf`).[6]

[5] 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 would suggest that our estimates constitute lower bounds as individuals in the control group also experienced a potential change in perceived voice.

[6] Contrary to our expectations, we only observe the total number of doors knocked on during the campaign. 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.
Individual level characteristics						
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	15.67	15.74	10.00	0	99	1007
Perceived voice within party (1 - 5 Likert scale)	3.19	1.24	3.00	1	5	1007
Prior experience						
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	18.68	79.72	1.00	0	1000	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
Post treatment attitudes (control)						
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
Post treatment intentions (control)						
# 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
Post treatment behavior (control)						
Knocked on any door	0.00	0.05	0.00	0	1	335
# doors knocked	0.10	1.75	0.00	0	32	335
Provided comments (all treatment)						
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 Experimental Design

In this Section we describe the experimental design.

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 exam-

ple, we elicit prior experience with different campaign activities and perceived voice in the party.

2.3.2 Treatment Allocation

One-third of our respondents proceed straight to the outcomes 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.

2.3.3 Voice Treatments

Among respondents in the voice treatment, 50% are randomly assigned to an "intrinsic voice" treatment, while the remaining respondents are assigned to an "instrumental voice" treatment.

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 personal preferences about the types of topics they care about irrespective of any instrumental reasons related to the electoral campaign.

To elicit these preferences, respondents are initially shown a matrix table listing 9 different issues. These issues are selected based on the main elements of the party's campaign manifesto and comprised issues 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

issues 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 views on how to improve the effectiveness of the electoral campaign based on their impressions and experiences made in the local constituency. This treatment is thus directly framed in terms of the 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 9 different issues. Importantly, we hold the issues listed in the table as well as respondents' answer choices (4-point Likert scale) constant across both treatment conditions. Similarly, respondents are then offered the opportunity to provide further discussion of the topics which they deem to be important for the success of the party's electoral campaign via an open text field.

2.3.4 Feedback Treatment

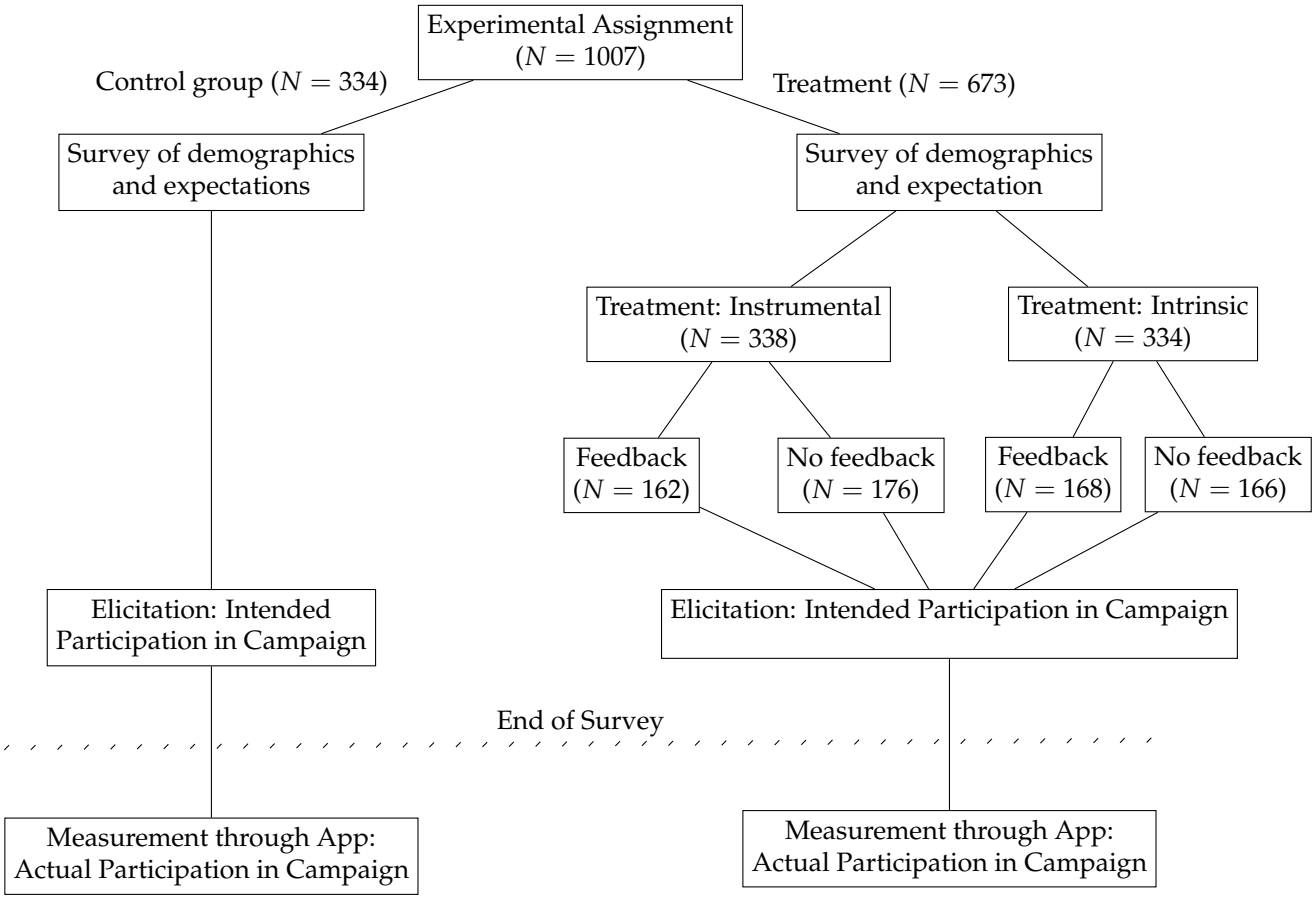
To credibly signal that supporters' views are being acknowledged and considered, organizations may choose to offer supporters feedback on the views they had expressed. One way in which such feedback can be provided is by circulating a summary of supporters' views to all members of the party. With our 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:

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

This message is shown twice. Once at the introductory text and on the survey page with the open text box. 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 After the delivery of the respective treatment condition (if applicable), 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 respondents who indicate that they plan to canvass, we elicit the intended number of days of canvassing.[7]

Post-treatment beliefs We then elicited 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 4 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 We use behavioral outcome 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 leverage the data from the application to assess several

[7]The intended number of days for respondents who do not plan to canvass is coded as zero days.

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^{th} percentile).[8]

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).

These sizable and statistically significant correlations show that intentions are predictive of subsequent actual behavior. However, the fact that that these correlations are 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.

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.[9]

[8] Individuals who do not appear in the application data are coded as not having canvassed.

[9] 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).

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 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.

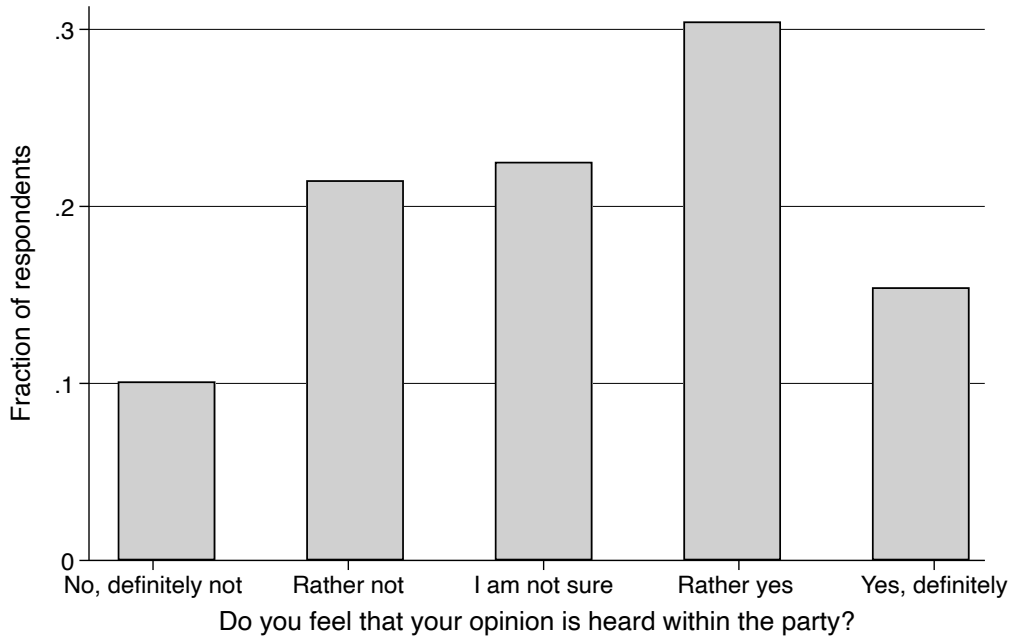


Figure 2: Distribution of perceived voice prior to treatment

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 We analyze the text data consisting of the opinions party supporters voice in the open text box. Table 1 illustrates that 51 percent of supporters give voluntary input in the open-ended text box where supporters assigned to a treatment condition can voice their opinion. 36 percent of party supporters provide constructive input. The most commonly mentioned topics in the open-ended text box are related to campaign strategy, the topics that should be emphasized, and the party's personnel decisions. Taken together, the open-ended data suggests a high engagement of survey participants, which underscores that a large fraction of party supporters seem to have a 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.[10] 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 a natural field experiment to address this question in the next

[10]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.

section.

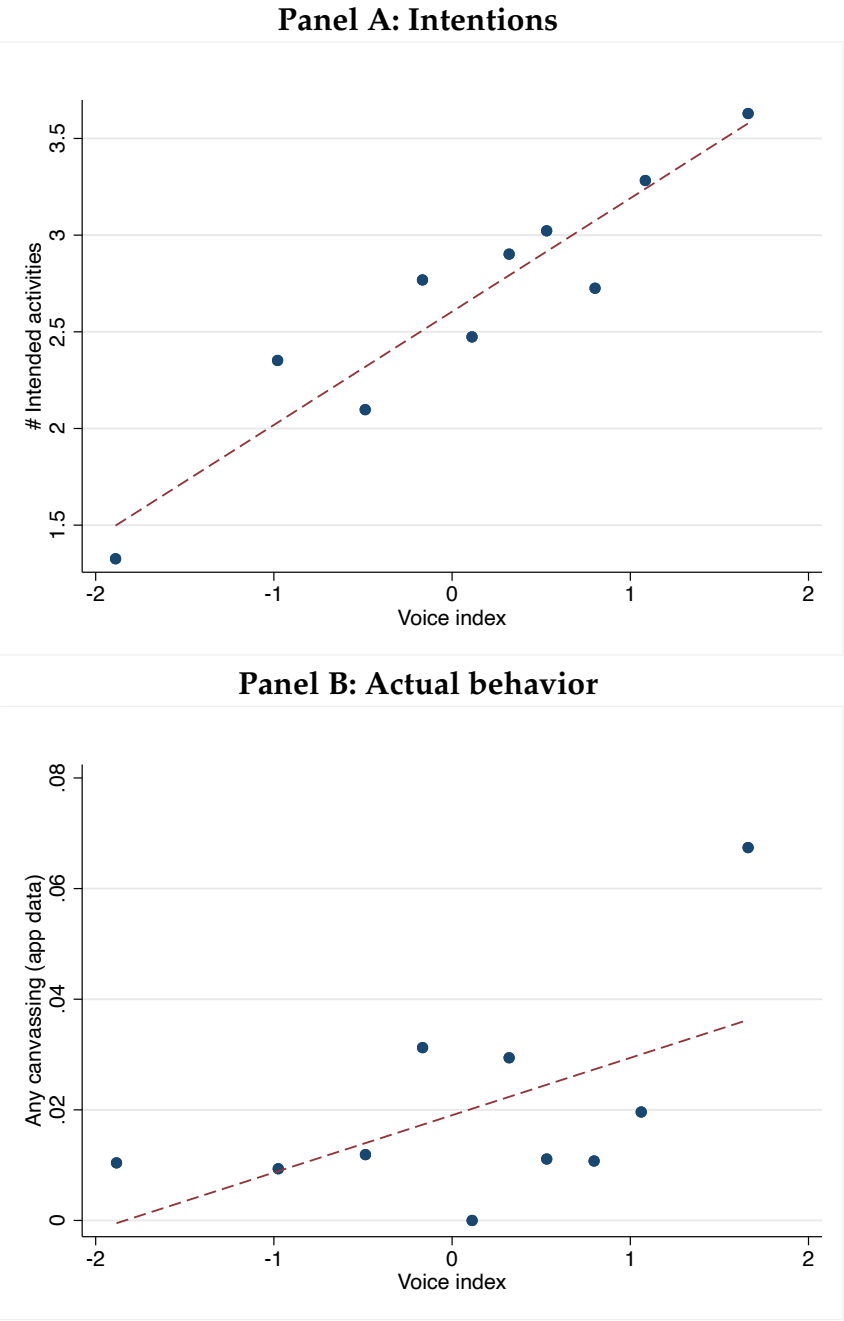


Figure 3: Relationships between voice and canvassing behavior

Notes: Table 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 experimental treatments from the natural field experiment.

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. In particular, we use the following specification:

$$Y_i = \beta_0 + \beta_1 treatment_i^{pooled} + \beta X_i + \varepsilon_i$$

where Y_i is the outcome of interest and $treatment_i^{pooled}$ 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:

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

where $treatment_i^{instrumental}$ is a dummy indicating whether the voice treatment was provided in instrumental terms and $treatment_i^{intrinsic}$ 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. [11]

[11] We display fully disaggregated results in section A.1 of the Online Appendix.

4.2 Behavioral Outcome Data on Canvassing

We first examine the effects 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 2.5 percentage points and the average number of doors canvassed by 1.2 (both $p < 0.01$; Panel A of Table 2). Estimating the specification without control variables does not change the magnitude or significance of the results substantially. While these effects are relatively small in absolute terms, they are large given the low level of canvassing activity in the control group (which is close to zero).

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 (column (1) 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 ($p = 0.45$ and $p = 0.50$, respectively).[12]

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. In particular, we are unable to reject any of the tests of equality of the two coefficients and the effect sizes are generally of comparable magnitude.

[12]The results on the extensive canvassing margin are robust to not using control variables or using Logit instead of OLS regressions (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)
Panel A: Main effects				
Any voice treatment	0.026***	1.202***	0.217**	0.083
	(0.007)	(0.351)	(0.103)	(0.058)
Panel B: Type of voice				
Instrumental	0.031***	1.434***	0.247**	0.138**
	(0.010)	(0.525)	(0.117)	(0.066)
Intrinsic	0.021**	0.967**	0.187	0.028
	(0.009)	(0.462)	(0.119)	(0.065)
p(Instrumental = Intrinsic)	0.45	0.50	0.60	0.08
Panel C: Feedback announcement				
Feedback announcement	0.025**	1.352**	0.289**	0.117*
	(0.010)	(0.540)	(0.118)	(0.067)
No feedback announcement	0.027***	1.056**	0.151	0.052
	(0.009)	(0.440)	(0.118)	(0.064)
p(Feedback = No feedback)	0.87	0.67	0.23	0.29
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), z-scored expectations for the vote shares of the own party and the two main competitors planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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 0.22 ($p < 0.05$), on average. This corresponds to an increase in the number of activities by approximately 10 percent compared to a control group mean of 2.4 activities. This suggests that supporters broadly increased their 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 5.9 and 5.5 percentage points, respectively ($p < 0.10$ and $p < 0.05$, respectively).

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 ($p = 0.23$). Similarly, Appendix Table A7 shows that there are no significant differences between the voice treatment with and without feedback on supporters' intentions to engage 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. Given the observed treatment effects on real canvassing behavior, it is possible that the documented effects on self-reported intentions also translated into real behavioral changes in these other dimensions of campaign effort.

4.4 Impact on Respondents' Perceptions of Voice

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.

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 ($\beta = 0.85$, $p = 0.14$).

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 0.14 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 ($p = 0.29$) due to a lack of statistical power.

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.[13] 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.

[13] Differences in treatment effects exhibit a similar pattern for the other two components of the index, but the differences are not significant.

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 -0.06 standard deviations (Online Appendix Table A8). 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 A8). 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 length of the written text as measured by the number of characters winsorized at the 99^{th} percentile).[14]

Specification Empirically, we estimate the following equation among all respondents who received any voice treatment:[15]

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

[14] All of our results are robust, but estimated less precisely if we do not apply the winsorization.

[15] We cannot include supporters in the control group in this analysis as they were not given the opportunity to share their views.

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 show 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 control group mean of 3 percent. 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.

Table 3: Effect of feedback on provided information

	(1) Any comment	(2) Nonsense comment	(3) Constructive comment	(4) Length (characters)
Panel A: Type of voice				
Instrumental	0.008	-0.020**	0.026	10.895
	(0.037)	(0.009)	(0.037)	(14.092)
Intrinsic group mean	0.50	0.03	0.36	98.16
Panel B: Feedback announcement				
Feedback announcement	0.022	-0.005	0.006	32.604**
	(0.037)	(0.009)	(0.036)	(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^{th} 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), z-scored expectations for the vote shares of the own party and the two main competitors planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

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 a random subset of party supporters is assigned to receive the opportunity to voice their opinions. 50% of treated party supporters are asked for their opinions on the importance of different topics in the context of improving the electoral success of the campaign (instrumental voice treatment), while the remainder of treated party supporters are asked for their opinions on the importance of different topics for them personally (intrinsic voice treatment). 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 application. Survey data reveals that our voice treatment also increases other margins of campaign effort.

Our evidence has far-reaching implications for the design of vertical relationships in organizations. Our results suggest that organizations, such as 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 repeated interventions giving voice to its members will help provide further important insights to best-practices for the design of vertical relationships in organizations.

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A Appendix Tables

Table A1: Pooled balance table

	Control	Treatment	Δ	p($\Delta = 0$)
Individual level characteristics				
Female	0.21	0.20	-0.01	0.74
Age	48.19	47.20	-0.99	0.39
Party member	0.94	0.95	0.01	0.48
Years of party membership	15.17	15.95	0.78	0.45
Perceived voice within party (1 - 5 Likert scale)	3.11	3.23	0.13	0.13
Expected vote share own party (z)	0.01	-0.11	-0.11	0.09
Expected vote share competitor party 1 (z)	-0.00	0.00	0.00	0.96
Expected vote share competitor party 2 (z)	0.00	-0.03	-0.03	0.62
Prior experience				
Any experience campaigning	0.78	0.78	0.00	0.91
Experience: door canvassing	0.49	0.52	0.03	0.44
Experience: # days door canvassing	21.91	17.10	-4.80	0.43
Experience: sticking poster	0.60	0.64	0.04	0.20
Experience: campaign booth	0.71	0.69	-0.02	0.58
Experience: social media	0.42	0.47	0.05	0.12
Experience: phone canvassing	0.19	0.19	0.01	0.77
Experience: convince friends	0.67	0.66	-0.01	0.73
Experience: other	0.12	0.14	0.02	0.49

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)
Individual level characteristics						
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	15.13	15.84	16.05	0.54	0.46	0.86
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
Prior experience						
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	21.84	17.46	16.73	0.54	0.39	0.89
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)
Individual level characteristics						
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	15.13	16.98	14.94	0.14	0.88	0.10
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
Prior experience						
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	21.84	17.04	17.15	0.46	0.48	0.98
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***	0.053***	2.967***	2.646***
	(0.013)	(0.014)	(0.751)	(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)
Panel A: Main effects		
Any voice treatment	2.327**	2.360**
	(1.027)	(1.108)
Marginal effect	0.030	0.033
Panel B: Type of voice		
Instrumental	2.419**	2.584**
	(1.048)	(1.135)
Intrinsic	2.225**	2.148*
	(1.057)	(1.135)
Marginal effect: Instrumental	0.100	0.092
Marginal effect: Intrinsic	0.098	0.077
p(Instrumental = Intrinsic)	0.67	0.34
Panel C: Feedback announcement		
Feedback	2.345**	2.339**
	(1.052)	(1.146)
No feedback	2.309**	2.382**
	(1.052)	(1.119)
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)
Panel A: Main effects				
Any voice treatment	0.027***	1.288***	0.327***	0.120*
	(0.007)	(0.362)	(0.119)	(0.068)
Panel B: Type of voice				
Instrumental	0.030***	1.425***	0.388***	0.177**
	(0.010)	(0.520)	(0.138)	(0.078)
Intrinsic	0.024**	1.150**	0.265*	0.062
	(0.009)	(0.485)	(0.137)	(0.079)
p(Instrumental = Intrinsic)	0.67	0.69	0.37	0.15
Panel C: Feedback announcement				
Feedback announcement	0.027***	1.486***	0.401***	0.145*
	(0.010)	(0.550)	(0.138)	(0.079)
No feedback announcement	0.026***	1.097**	0.258*	0.096
	(0.010)	(0.455)	(0.137)	(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 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 do not include control variables. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A7: Treatment effects on overall campaign activity

	(1) # activities	(2) Campaign booth	(3) Phone canvassing	(4) Stick posters	(5) Convince friends	(6) Online campaigning	(7) Any canvassing	(8) # days canvassing
Panel A: Main effects								
Any voice treatment	0.217**	0.059*	0.010	0.017	0.055**	0.007	0.022	0.385
	(0.103)	(0.030)	(0.020)	(0.029)	(0.028)	(0.027)	(0.028)	(0.341)
Panel B: Type of voice								
Instrumental	0.247**	0.059*	0.028	0.014	0.049	-0.012	0.034	0.211
	(0.117)	(0.035)	(0.023)	(0.034)	(0.032)	(0.031)	(0.032)	(0.398)
Intrinsic	0.187	0.059*	-0.007	0.019	0.061*	0.027	0.011	0.559
	(0.119)	(0.035)	(0.023)	(0.034)	(0.031)	(0.030)	(0.032)	(0.408)
p(Instrumental = Intrinsic)	0.60	0.98	0.12	0.87	0.70	0.21	0.48	0.42
Panel C: Feedback announcement								
Feedback announcement	0.289**	0.060*	0.017	0.027	0.057*	0.020	0.020	0.149
	(0.118)	(0.035)	(0.023)	(0.034)	(0.032)	(0.032)	(0.033)	(0.397)
No feedback announcement	0.151	0.058*	0.004	0.007	0.053*	-0.004	0.025	0.603
	(0.118)	(0.035)	(0.023)	(0.034)	(0.032)	(0.030)	(0.032)	(0.412)
p(Feedback = No feedback)	0.23	0.94	0.56	0.58	0.91	0.45	0.87	0.30
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. Column (2) to (7) presents 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 planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A8: Treatment effects on perceived campaign effectiveness

	Effective campaign (z)
	(1)
Panel A: Main effects	
Any voice treatment	-0.072
	(0.068)
Panel B: Type of voice	
Instrumental	-0.084
	(0.076)
Intrinsic	-0.060
	(0.080)
p(Instrumental = Intrinsic)	0.76
Panel C: Feedback announcement	
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 A8 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 planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A9: Treatment effects on supporters' perceptions

	(1) Voice index	(2) Diff through engagement	(3) Being heard	(4) Feels connection	(5) Party interested
Panel A: Main effects					
Any voice treatment	0.083	0.093	0.043	0.084	0.041
	(0.058)	(0.061)	(0.061)	(0.064)	(0.057)
Panel B: Type of voice					
Instrumental	0.138**	0.127*	0.111	0.098	0.098
	(0.066)	(0.070)	(0.072)	(0.071)	(0.068)
Intrinsic	0.028	0.060	-0.025	0.070	-0.016
	(0.065)	(0.070)	(0.070)	(0.074)	(0.065)
p(Instrumental = Intrinsic)	0.08	0.31	0.05	0.67	0.09
Panel C: Feedback announcement					
Feedback announcement	0.117*	0.106	0.071	0.092	0.099
	(0.067)	(0.071)	(0.071)	(0.072)	(0.068)
No feedback announcement	0.052	0.081	0.018	0.077	-0.013
	(0.064)	(0.068)	(0.070)	(0.073)	(0.065)
p(Feedback = No feedback)	0.29	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. Columns (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), z-scored expectations for the vote shares of the own party and the two main competitors planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A10: Effect of feedback on provided information - no control variables

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

Notes: Table A10 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^{th} 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), z-scored expectations for the vote shares of the own party and the two main competitors planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A11: Effects on comment mood

	Mood in comment	
	(1)	(2)
Panel A: Type of voice		
Instrumental	-0.109**	-0.083*
	(0.048)	(0.048)
Intrinsic group mean	1.94	1.94
Panel B: Feedback announcement		
Feedback announcement	-0.020	-0.017
	(0.049)	(0.051)
No feedback group mean	1.90	1.90
Number of Observations	334	334
Controls		X

Notes: Table A11 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), z-scored expectations for the vote shares of the own party and the two main competitors planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

A.1 Fully disaggregated regressions

Table A12: Balance table - disaggregated

	Control	Instrumental	Instrumental + Feedback	Intrinsic	Intrinsic + Feedback	p-value joint significance
Individual level characteristics						
Female	0.21	0.21	0.19	0.17	0.22	0.82
Age	48.19	48.38	48.38	46.01	46.01	0.44
Party member	0.94	0.97	0.98	0.93	0.93	0.05
Years of party membership	15.17	14.65	17.13	15.25	16.86	0.47
Perceived voice within party (1 - 5 Likert scale)	3.11	3.24	3.15	3.21	3.33	0.35
Expected vote share own party (z)	0.01	-0.06	-0.10	-0.13	-0.13	0.39
Expected vote share competitor party 1 (z)	-0.00	0.04	0.01	0.04	-0.08	0.74
Expected vote share competitor party 2 (z)	0.00	-0.05	-0.15	0.08	-0.01	0.37
Prior experience						
Any experience campaigning	0.78	0.75	0.83	0.76	0.78	0.44
Experience: door canvassing	0.49	0.46	0.59	0.52	0.51	0.19
Experience: # days door canvassing	21.91	17.12	17.82	17.18	16.31	0.94
Experience: sticking poster	0.60	0.65	0.68	0.59	0.63	0.33
Experience: campaign booth	0.71	0.64	0.76	0.66	0.70	0.13
Experience: social media	0.42	0.47	0.51	0.48	0.43	0.32
Experience: phone canvassing	0.19	0.18	0.18	0.21	0.21	0.89
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 A12 presents a disaggregated balance table.

Table A13: 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**	0.039***	1.410**	1.452**	0.187**	0.130*
	(0.015)	(0.015)	(0.694)	(0.678)	(0.092)	(0.074)
Treatment: instrumental + feedback	0.022*	0.021*	1.442*	1.412*	0.165*	0.146*
	(0.013)	(0.013)	(0.769)	(0.774)	(0.100)	(0.084)
Treatment: intrinsic	0.015	0.014	0.766	0.639	0.003	-0.028
	(0.011)	(0.011)	(0.565)	(0.571)	(0.099)	(0.079)
Treatment: intrinsic + feedback	0.033**	0.028**	1.529**	1.293*	0.125	0.088
	(0.015)	(0.014)	(0.775)	(0.724)	(0.095)	(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 A13 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), z-scored expectations for the vote shares of the own party and the two main competitors planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A14: 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	0.045	0.004	0.009	0.066*	-0.016	0.049	0.394
	(0.139)	(0.043)	(0.027)	(0.041)	(0.038)	(0.036)	(0.039)	(0.494)
Treatment: instrumental + feedback	0.270*	0.073*	0.054*	0.019	0.030	-0.008	0.017	0.009
	(0.145)	(0.042)	(0.029)	(0.043)	(0.039)	(0.040)	(0.040)	(0.507)
Treatment: intrinsic	0.074	0.071*	0.004	0.005	0.040	0.008	0.000	0.818
	(0.147)	(0.042)	(0.029)	(0.042)	(0.039)	(0.036)	(0.040)	(0.547)
Treatment: intrinsic + feedback	0.307**	0.047	-0.018	0.034	0.083**	0.046	0.022	0.286
	(0.140)	(0.043)	(0.026)	(0.042)	(0.037)	(0.038)	(0.040)	(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 A14 presents the main treatment effects with control variables. Column (1) presents the effects on the number of planned campaign activities. Column (2) to (7) presents 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 planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A15: 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**	0.130*	0.198**	0.144*	0.144	0.096	0.109	0.081	0.138	0.088
	(0.092)	(0.074)	(0.089)	(0.079)	(0.098)	(0.085)	(0.089)	(0.083)	(0.096)	(0.080)
Treatment: instrumental + feedback	0.165*	0.146*	0.144	0.108	0.129	0.129	0.161*	0.117	0.088	0.108
	(0.100)	(0.084)	(0.099)	(0.088)	(0.103)	(0.091)	(0.089)	(0.086)	(0.105)	(0.089)
Treatment: intrinsic	0.003	-0.028	0.053	0.018	-0.037	-0.062	0.084	0.072	-0.091	-0.117
	(0.099)	(0.079)	(0.099)	(0.083)	(0.098)	(0.087)	(0.096)	(0.090)	(0.101)	(0.081)
Treatment: intrinsic + feedback	0.125	0.088	0.156*	0.105	0.051	0.015	0.082	0.067	0.105	0.091
	(0.095)	(0.079)	(0.095)	(0.085)	(0.095)	(0.083)	(0.093)	(0.088)	(0.093)	(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 A15 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), z-scored expectations for the vote shares of the own party and the two main competitors planned campaign activities. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

B Appendix Figures

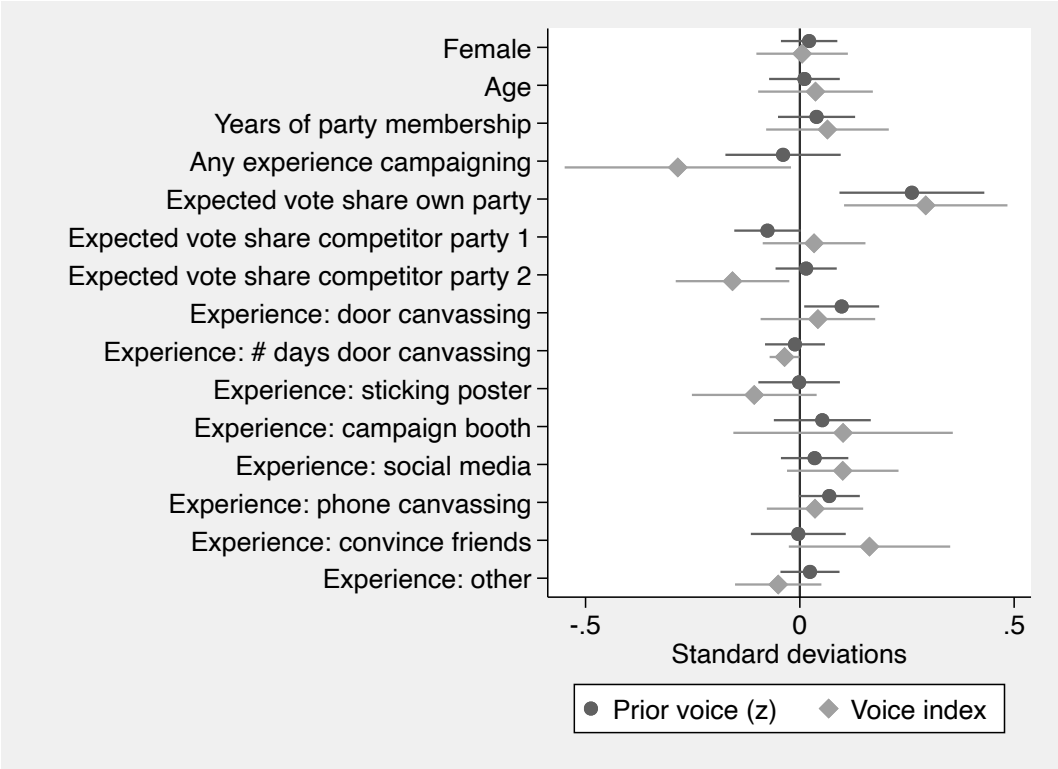

Figure A1: Correlates of perceived voice

Notes: Table 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.

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