Do Political Representation Gaps Cause Populism? Evidence from the 2025 German Election*

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September 12, 2025

Abstract

Research on the rise of populism has largely overlooked the explanation populists themselves advance: that they fill *political representation gaps*, defined as discrepancies between mainstream parties' policies and the "popular will." We test this claim in an information-provision experiment conducted in the weeks leading up to the 2025 German federal election. A sample of 5,040 German citizens was randomly assigned varying information about the immigration stance of Germany's mainstream center-right CDU—an issue marked by a substantial representation gap. We find that perceptions of the CDU's position significantly affect both vote intentions and incentivized behavioral measures: when the CDU is perceived as closer to the electorate's conservative preferences on immigration, support for the right-wing populist AfD declines. Our estimates indicate that the AfD's vote share would shrink by as much as 75% if the CDU adopted its immigration stance. These results suggest that the electoral success of populist parties is strongly linked to genuine policy preferences, rather than being driven solely by dissatisfaction with political elites or protest voting.

Keywords: Populism, Elections, Information Provision Experiment, Immigration
JEL Codes: D72, C93, K37.

*We are grateful to Luca Braghieri, Felix Chopra, Sarah Eichmeyer, Mathilde Emeriau, Luca Henkel, Chris Roth, Johannes Wohlfart, and audiences at the 2025 Bocconi-Columbia Political Economy Conference and the 2025 CSEF-IGIER Symposium on Economics and Institutions for helpful comments and discussions. This study was approved by Bocconi Research Ethics Committee on November 25, 2024 (Application RA000845). The preregistration is available at https://osf.io/5kjmt. We acknowledge financial support from the European Research Council (POPULIZATION Grant No. 852526).

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1 Introduction

Western democracies have witnessed two striking trends in recent decades. First, citizens increasingly feel that political mainstream parties no longer adequately represent them. For instance, polls conducted by Pew Research in 2023 reveal that, in many Western democracies, around half of the electorate does not feel represented by any political party (Pew Research Center, 2024). Second, populist parties—particularly those on the right—have surged in electoral support. These parties, typically characterized by anti-immigration stances and conservative positions on cultural issues, frame themselves as champions of the "pure people" against a "corrupt elite" that has betrayed the popular will (Mudde and Rovira Kaltwasser, 2017). In Europe, vote shares for right-wing populist parties have more than doubled since 2000, reshaping political landscapes across the Western world with major effects on the economy (Funke et al., 2023; Guriev and Papaioannou, 2023).

A potential explanation for this dual trend lies in the policy positioning of mainstream parties. In many Western democracies, *all* non-populist (mainstream) parties have adopted more liberal positions on cultural issues than the median voter, most notably on immigration (Guenther, 2025a). The result is what we call a "representation gap"—defined as the discrepancy between mainstream party policies and the political attitude of the average voter. Many spatial voting models predict that such gaps invite entry by new parties positioned to exploit them (Persson and Tabellini, 2002). Consistent with this expectation, right-wing populist parties have filled the representation gap by offering cultural policies to the right of mainstream parties (Guenther, 2025a). Notably, it is precisely these right-wing populists that have driven the overall rise in populist vote shares over recent decades, while mainstream parties and left-leaning populists have stagnated or declined (Guriev and Papaioannou, 2023).

While these patterns suggest that a growing perception of misrepresentation may drive the rise of populist parties, establishing causality is challenging. Observational data cannot disentangle whether populist support stems from representation gaps or from confounding factors. This paper addresses this challenge by exploiting voters' uncertainty about the immigration stance of the largest German mainstream party (Christian Democratic Union of Germany, CDU) during the 2025 German federal election. Through a novel experiment, we randomize signals

to manipulate perceptions of the CDU's position, exogenously shifting the perceived representation gap. This design allows us to address two core research questions: (1) Does the cultural representation gap cause support for populist parties? (2) Can mainstream parties bolster their electoral fortunes —and diminish populist appeal— by closing this gap?

To generate information, we leverage surveys where parliamentary candidates anonymously report their immigration stance. For the CDU, we draw subsamples of their parliamentary candidates and inform participants about the median response. By randomly assigning participants to different subsamples of CDU candidates, we generate exogenous variation in the information about the CDU immigration stance. For other parties, all participants receive the same information, that is, the median response of each party's parliamentary candidates. Our manipulation strongly affects beliefs about the CDU immigration stance, and thereby the perceived representation gap: the effect of our treatment is similar in magnitude to the change that occurred during the 2015 migrant crisis, when an estimated 1.3 million people came to Europe (mostly from the Middle East) to request asylum.

We estimate the average effect of this representation gap on vote intentions, attitudes toward parties, and several incentivized behavioral outcomes (e.g., donations to parties) using a state-of-the-art instrumental variable approach (Balla-Elliott, 2025). We find that an increase in the perceived representation gap strongly boosts all measures of support for the right-wing populist party, Alternative for Germany (AfD). The magnitudes are very large. For instance, we estimate that a one-unit increase in the perceived representation gap (on an 11-point scale) increases AfD voting by approximately 7 percentage points. For reference, AfD received 20.8% of the votes in 2025 and, as we show using additional data, the representation gap increased by about 1.5 points on the same 11-point scale during the 2015 European migrant crisis. At the same time, an increase in the perceived representation gap reduces support for the CDU, the party responsible for widening the gap in our treatment manipulation. We find no evidence of effects on voter turnout, indicating that closing the gap reallocates votes rather than mobilizing the electorate.

The effects on the two parties are asymmetric: while closing the gap increases CDU support modestly, it erodes AfD support far more strongly. This asymmetry arises in part from heterogeneous responses across voter ideologies. Among right-leaning voters, the effects on

CDU gains and AfD losses are roughly symmetric, aligning with standard spatial voting models. However, even centrist and left-leaning voters increase their AfD support when the CDU is perceived as being more liberal on immigration and thus increasing the representation gap, despite the CDU moving toward their preferred policy. This pattern challenges pure spatial models and suggests additional mechanisms at play. Additional heterogeneity analyses reveal that effects are amplified among voters who prioritize immigration, those who base decisions on policy issues rather than candidates' characteristics (e.g., their charisma), and residents of East Germany.

Robustness checks confirm the stability of our results. Estimates are robust to restricting the sample to participants who pass attention checks, deem the information credible, or update beliefs toward the signal. Crucially, we rule out "cross-learning" violations of the exclusion restriction: the information treatment affects only perceived representation, with no spillover to voters' own immigration attitudes or beliefs about post-election coalitions. This null effect on attitudes also implies that, at least in the short run, voter preferences do not follow party positions, validating our focus on exogenous shifts in perceived party stances without endogenous feedback loops. Moreover, the effects of the gap are symmetric across increases and decreases and magnitudes remain very similar independent of which treatment arms we use in our analysis, suggesting that the effect of the gap is roughly linear. Finally, we obtain qualitatively identical results in an obfuscated follow-up study.

To gauge broader implications, we simulate counterfactual election outcomes. We find that a one-unit rightward shift in perceived CDU stance—within the range of our experimental variation—reduces the AfD's vote share by 4.7 percentage points, boosting the CDU by 2.3 points and modestly benefiting other mainstream parties. Extrapolating linearly to a scenario where the CDU largely closes the representation gap by matching the AfD's position (a shift of approximately 3.2 units), the AfD's support plummets from 20.8% to about 5%. The CDU gains substantially, with spillover benefits to left-wing parties, effectively restoring a situation akin to before the 2015 European migrant crisis. While this extrapolation assumes linearity of the main effect, which we find evidence for but is ultimately untestable, it highlights the potentially huge effects closing or opening representation gaps can have.

This study contributes to a growing literature on the rise of populist parties and the role of political representation in shaping voter behavior. Prior work has documented that representation gaps are widespread in European countries—particularly on immigration and cultural issues—and that perceived ideological misalignment is correlated with support for far-right parties (Guenther, 2025a). Spatial voting models (Downs, 1957; Persson and Tabellini, 2002), predict that voters gravitate toward parties closest to their ideological preferences, yet empirical tests of these models often rely on observational data, limiting causal inference (Adams, 2012; Gallego and Schofield, 2016; Lee et al., 2004; Schofield, 2005; Schofield and Zakharov, 2010; Di Tella et al., 2025).

To achieve causal identification, we build on recent advances in designing information provision experiments. Information provision experiments are an increasingly used tool to assess how individuals react to novel information, for example regarding climate change (Dechezleprêtre et al., 2025; Nyhan et al., 2022), immigration (Alesina et al., 2023; Grigorieff et al., 2023; Guenther, 2025b), health (Akesson et al., 2022), protest mobilization (Hager et al., 2022), income distributions (Bottan and Perez-Truglia, 2022), stockholders' generosity (Henkel and Zimpelmann, 2023), labor markets (Jäger et al., 2024) or macroeconomic outcomes (Link et al., 2023; Roth and Wohlfart, 2020; Roth et al., 2022). Haaland et al. (2023) survey the literature and give advice on best practices that we follow.

Information provision experiments and related survey experimental methods (e.g., vignette experiments and conjoint experiments) have been recently used by economists and political scientists to estimate the effects of parties' political positions on various political outcomes (Chou et al., 2021; Grewenig et al., 2020; Hjorth and Larsen, 2022). These studies examine whether party positions affect voting but do not measure (perceived) representation gaps or incentivized outcomes. Hence, these studies are unable to test either the effect of representation gaps or whether parties can exploit representation gaps to increase their vote share. In contrast, we designed our experiment in a way that enables us to measure perceived representation gaps before and after the provision of information. This allows us to estimate how our treatment affects the perceived misrepresentation and, building on recent econometric advances (Balla-Elliott, 2025; Haaland et al., 2023), to estimate their causal effect for the average participant. In

addition, we collect multiple incentivized behavioral outcomes and complement our main study with an obfuscated follow-up to reduce concerns about experimenter demand effects.

The most closely related contribution is Silva and Wratil (2023) who provide participants with randomly assigned information on whether there exists any party that represents their view on European integration issues, and estimate the effect of this information on populist attitudes, measured as agreement with populist statements. Since their information provision only reveals whether *some* party represents the participant, but does not reveal *what* party does, their study measures the effect of being represented by some unknown party. In contrast, we estimate the effect of the mainstream center-right party—that is, the party ideologically closest to a right-wing populist party and thus a credible alternative for populist voters—moving closer toward or away from the participants' preferred policy. Moreover, while Silva and Wratil (2023) examine the effect on populist attitudes (e.g., people-centrism), we focus on voting intentions and incentivized behavioral outcomes (e.g., donations). Possibly as a result of these differences in the experimental design, we find markedly different effects: while Silva and Wratil (2023) reveal null effects, we find that the representation gap on immigration has profound effects on voting intentions and incentivized behavioral outcomes. Taken together, these results hint at the possibility that representation gaps do not affect general attitudes toward politics or society but, largely via a spatial voting channel, preferences among the available parties or candidates in elections. This hypothesis is consistent with evidence from vignette studies suggesting that populist candidates are not successful because of their populist attitudes, but because of their political platforms (Baskaran et al., 2025; Chou et al., 2021; Dai and Kustov, 2024).

2 Background: Germany's Political Landscape

Germany's parliamentary democracy is characterized by proportional representation and a 5% electoral threshold. It has historically been dominated by two parties: the Christian Democratic Union of Germany (with its Bavarian sister party, the Christian-Social Union; CDU/CSU, henceforth CDU) and the Social Democratic Party of Germany (SPD). Other parties securing parliamentary representation include the Greens, the Free Democratic Party (FDP), and the

Left. The relatively high threshold typically ensures that only these parties enter parliament. Moreover, coalition governments are typical, as single-party majorities are rare due to high proportionality.

Newly established parties rarely surpass the 5% threshold to enter parliament. Since the Federal Republic's founding, only the Greens (1980s) and the Left (1990s, as the successor to East Germany's communist party) achieved this before 2017. This stability underscores the significance of the right-wing populist Alternative for Germany (AfD), founded in 2013, which entered parliament in 2017, marking the first time a party to the right of the CDU gained national parliamentary representation.

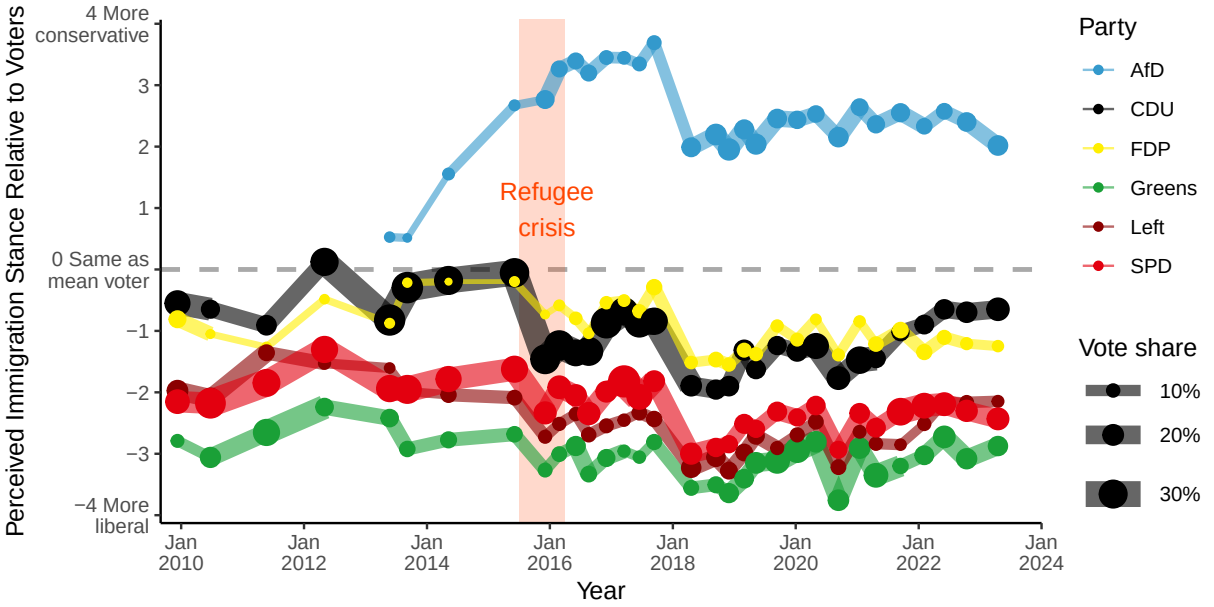


Figure 1: Perceived Immigration Policy Stance of German Parties
Note: For each party, the series shows citizens' average perceived policy position minus the position preferred by the average citizen. Negative values indicate that the average citizen perceives the party as more liberal than themselves. The sample of respondents is representative of the German adult population. Vote shares are calculated based on voting intentions from the same survey. Source: GLES (2023).

A defining feature of Germany's recent political landscape is the existence of a perceived representation gap, defined as the discrepancy between voter preferences and the policy positions attributed to mainstream parties, particularly on immigration (Guenther, 2025a). To quantify this gap, we leverage data from the German Longitudinal Election Study (GLES, 2023), a repeated cross-sectional survey that asks representative samples of German citizens to place themselves and all major parties on an 11-point scale regarding immigration policy (0 = prefer fully open, 10 = prefer fully restrictive). Figure 1 plots the average difference between citizens'

self-placement and their perceived placement of each party's immigration stance. Negative values indicate that the average citizen views the party as more liberal on immigration than themselves, while positive values suggest a more conservative perception. Until the AfD's rise, all major parties—including the CDU, the most conservative parliamentary party on social issues before 2013—were consistently placed to the left of the average voter (similarly for the median voter). Hence the average voter, and all voters who are futher to the right, consistently perceived all parties in parliament to be more liberal on immigration than themselves.

Spatial voting models predict that such representation gaps create opportunities for new parties to emerge and capture unrepresented voter segments (Persson and Tabellini, 2002). Consistent with this hypothesis, the AfD rapidly gained traction by adopting a strongly anti-immigration stance, positioning itself to the right of the CDU. During the 2015 European migrant crisis, when 1.1 million asylum seekers entered Germany, this dynamic amplified. As the CDU, then leading the government, was perceived as shifting toward a more liberal immigration stance, the representation gap widened further. Concurrently, the AfD's support surged, rising from approximately 6% in early 2015 to 12% by late 2016, culminating in its 2017 electoral breakthrough. By the run-up to the 2025 federal election, the AfD polled at approximately 20%, ranking second behind the CDU.

Two features of the 2025 German federal election make it an ideal setting to test our research questions. First, a "cordon sanitaire"—that is, an informal agreement among German mainstream parties not to cooperate with the AfD—created a clear ideological divide between the righ-wing populist party and the other parties, reinforcing its distinct position on immigration. Second, ambiguity over the CDU's immigration stance, driven by conflicting signals from its new leadership, reduced the rigidity of voters' prior beliefs about the party's position. This ambiguity facilitated our experimental manipulation, as it allowed us to exogenously shift perceptions of the CDU's immigration policy, thereby altering the perceived representation gap.

3 Conceptual Framework

Before presenting our information provision experiment, we recognize that several competing perspectives offer distinct predictions about how voters respond to shifts in mainstream parties' policies. In this section, we outline three conceptual frameworks. The first, our representation gap theory, highlights how distance between voters and mainstream parties can open space for populist support. We then contrast this with two alternative explanations: a legitimation theory in which mainstream parties validate extreme positions, and a protest voting theory in which populist support is driven by dissatisfaction with elites regardless of policy. Each framework yields different expectations about the effect of our manipulation, which we summarize below.

3.1 Representation Gap Theory

We posit a theoretical mechanism grounded in spatial models of voting, augmented with barriers to newcomer support. Voters select the party closest to their preferred position on key policy issues (e.g., immigration). Initially, voters are predisposed to choose among mainstream parties. This predisposition stems from several possible sources: voters have historically supported mainstream parties and are reluctant to change due to inertia; mainstream parties are perceived as more competent, experienced, and capable of governing effectively compared to newcomers; populist parties often present voters with mixed bundles of policies, some appealing, others less attractive; populist parties may be perceived as socially undesirable due to extreme or xenophobic positions, reducing voters' willingness to openly support them. Thus, the default behavior for most voters, even if somewhat dissatisfied, is to continue voting for mainstream parties.

When the distance between voters' preferred policy and mainstream parties' positions — the "representation gap''— becomes sufficiently large, voters begin to reconsider their choices. The gap acts as a trigger: voters experiencing a large enough misrepresentation of their views become susceptible to alternative offers from populist or newcomer parties. However, voters do not indiscriminately choose any populist party; they specifically choose populist parties offering at least some policy alignment on salient issues (e.g., conservative immigration positions).

Our experiment manipulates voters' perceptions of a mainstream party's immigration stance,

directly affecting the representation gap. Thus, our experiment identifies how changes in representation gaps causally drive populist support. The theory predicts strong treatment effects: for voters initially open to populist parties (e.g., voters positioned between mainstream and populist parties), reducing this gap increases mainstream parties' attractiveness and leads voters back to them, reducing populist support. Conversely, populist parties retain voter support if the representation gap remains large or increases.

3.2 Legitimation Theory

An alternative conceptual framework is based on the idea that voters are uncertain about what immigration policies are optimal or concerned about the social acceptability of populist immigration policies and that they rely on signals or cues from mainstream party elites to form judgments about policy legitimacy. When mainstream parties adopt more conservative positions, voters interpret this as legitimizing previously controversial or extreme positions held by populists, potentially increasing populist support. This can happen through two related mechanisms:

- Learning Mechanism: Voters uncertain about the best immigration policy update beliefs about conservative positions positively when mainstream parties adopt them.
- Social Acceptability Mechanism: Positions previously perceived as extreme or socially undesirable become more acceptable or normalized when mainstream parties adopt them.

Consequently, rather than decreasing populist voting, a mainstream party shift toward the populist party's position might increase support for populists, due to reduced stigma or increased perceived legitimacy of their policy offers. This theory thus predicts that a reduction in the perceived representation gap leaves populist support stable or increases it (and that mainstream party support may remain unchanged or decrease), as populist positions are normalized.

3.3 Protest Voting Theory

A third theory posits that voters experience generalized frustration or alienation toward mainstream parties and that they choose populist parties primarily to express dissatisfaction with political elites, rather than genuine policy preference alignment. Under this theory, changes in

the perceived positions of mainstream parties (as induced by our experimental manipulation) should have limited or no effect on populist support, as voters remain motivated by dissatisfaction with mainstream parties as a whole. This theory thus predicts no significant treatment effects on voting intentions for any subgroup of voters as voters remain dissatisfied regardless of small shifts in perceived policy positions. Moreover, this theory predicts no meaningful difference in treatment effects across voter types, as dissatisfaction remains constant regardless of policy positions.

4 Experimental Design

This section is organized as follows: Section 4.1 gives a general overview of the survey structure. Sections 4.2 and 4.3 provide details on the key independent and dependent variables we use in the analysis, respectively. Section 4.4 explains our efforts to maximize high-quality responses and Section 4.5 provides information on the survey implementation. Finally, Section 4.6 describes the design of the follow-up study.

4.1 Structure

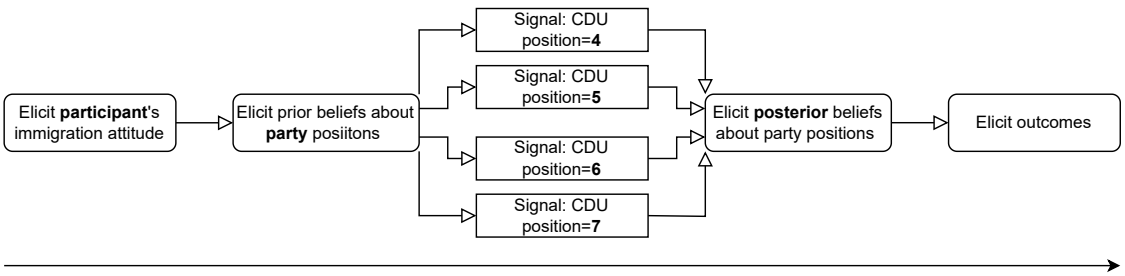


Figure 2: Survey Structure

We conduct an information provision experiment with an active control group (Haaland et al., 2023). As visualized in Figure 2, the experiment follows a five-step procedure:

1. After initial screening questions (18+, citizenship, attention check), we elicit participants' own immigration attitudes using their response on a scale from 0 to 10 to the following question: *"What is your personal opinion on the topic of immigration opportunities? Please use the following scale from 0 to 10. A value of 0 means that, in your opinion,*

immigration opportunities should be strongly facilitated. A value of 10 means that, in your opinion, immigration opportunities should be strongly restricted. You can use the values between 0 and 10 to grade your opinion."

2. We elicit participants' prior beliefs about the immigration stance of the main German parties on the same scale.
3. We randomly assign participants to one of four treatment conditions, each providing a distinct signal about the parties' immigration stances. These signals vary solely in the reported position of the CDU (4, 5, 6, or 7) holding all other party positions constant.
4. We elicit posterior beliefs about the parties' immigration stances, capturing how participants update their perceptions in response to the treatment.
5. We measure outcome variables, variables used to test for heterogeneous treatment effects, and variables used for validation exercises.

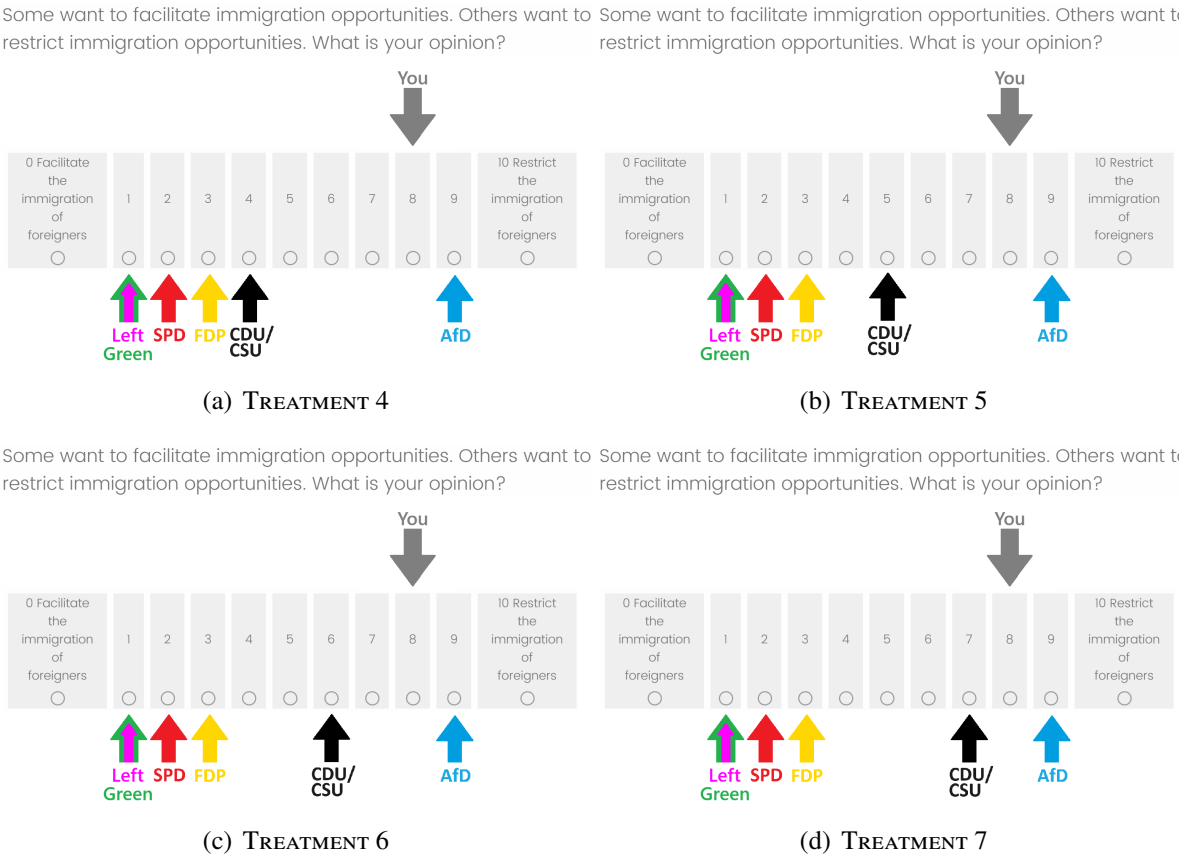
Our central objective is to estimate the causal effect of belief changes on outcomes of interest —such as attitudes toward parties and incentivized behavioral responses— by inducing exogenous variation in participants' information sets. We achieve this by randomized allocation into estimates of parties' immigration stances. To generate these estimates, we employ survey data on candidates to the previous German federal election who responded to the same question on attitudes toward immigration as our participants. Following studies in political science and economics (Costello et al., 2020; Dalton, 2017; Guenther, 2025a; Vasilopoulou and Gattermann, 2013; Walczak and Van der Brug, 2013), we estimate the position of a party as the median position of its candidates. To achieve exogenous variation in the estimate for the CDU while keeping estimates for other parties' constant, we draw a subsample of 11 CDU candidates (out of the 141 we have information for) and calculate their median stance but use the whole sample of available candidates for other parties. Participants are informed about this procedure.[1] The uniform random sampling of 11 CDU candidates would result in 4 different median stances with

[1]This is the language we used in the survey (translated from German): "Scientists have long been researching how to measure the positions of political parties. As recent studies have shown, one valid method is to evaluate the responses of parties' candidates in an anonymous survey. We used this method to measure the immigration stance of German parties. For this purpose, we analyzed the answers of some Bundestag candidates to the same question we just asked you. The currently available data is for candidates to the 2021 Bundestag election, so we have no data for Sarah Wagenknecht's Alliance yet. We will provide you with information on the responses of 502 candidates. These are broken down by party as follows CDU/CSU: 11, AfD: 58, SPD: 65, Greens: 131, FDP: 117, Left: 121."

high likelihoods: 4, 5, 6, and 7. To maximize statistical power, we assign participants to each of these four treatments with equal probability (rather than with the exact probabilities from uniform random sampling).

4.2 Independent Variables

We are interested in the effects of two independent variables: the treatment (that is, the information about the immigration stance of the CDU) and the "perceived representation gap."



(a) Treatment 4

(b) Treatment 5

(c) Treatment 6

(d) Treatment 7

Figure 3: Information Provision Screen by Treatment

Figure 3 shows the four possible signals on the CDU immigration stance (that is, the four *treatments*), as seen by our participants on their screens. Notice that, in this same screen, we also remind them of their own answer to the same question. We measure the "perceived representation gap" as the (post-treatment) perceived distance between the participant's immigration stance and the immigration stance of the closest mainstream party—that is, the closest party other than the right-wing populist party (AfD). To construct this measure, we thus use participants' beliefs about all parties' immigration attitudes after the treatment and participants' own

immigration attitudes before the treatment.

4.3 Dependent Variables

As pre-registered, we examine 11 main dependent variables, which we categorize into three groups: voting intentions and attitudes, engagement with party materials, and party support.

4.3.1 Voting Intentions and Attitudes

To measure voting intention, we use two standard items. First, participants indicate via an 11-point scale how likely it is that they are turning out at the upcoming federal election. Thereafter, independent of their previous answer, we ask them which party they would vote for if they voted. Based on this item, we calculate indicators for each major party that equal one if the participant states to vote for this party and zero otherwise. We also include a more continuous measure of party attitudes: a standard feeling thermometer item that asks participants how positive or negative they feel toward each party on an 11-point scale.

4.3.2 Engagement with Party Materials

To measure engagement with party materials, we give participants the opportunity to subscribe to a newsletter from each party. In particular, we provide them with links leading to a page where they can subscribe to party newsletters. We record only whether participants click on each of the links, not whether they actually subscribe. However, we interpret clicking on the link as an intention to subscribe since it does not serve any other purpose. As pre-registered, we construct binary indicators for whether a participant clicked on the subscription link for the CDU and AfD, respectively.

4.3.3 Party Support

We use two incentivized measures for direct party support. First, we follow earlier work and adopt a donation measure (Braghieri and Eichmeyer, 2024; Haaland et al., 2023; Stantcheva, 2023). In particular, we elicit participants' willingness to accept to allow us make a donation to (i) the CDU and (ii) the AfD on their behalf. This is the minimum amount we need to pay them

(in addition to the reward for completing the survey) for them to agree with the donation. We construct two such measures, one for the donation to the CDU and one for the donation to the AfD.[2] A greater amount indicates a lower support for or greater aversion to the party.

Second, we employ a measure that has, to our best knowledge, not been used so far: we (truthfully) tell participants that, just before an upcoming election, we will conduct another study in which we will show official campaign ads to 1,000 voting-age German citizens. Crucially, a random participant to this study decides what parties' campaign ads we will show to participants in the future study. To make the measure more continuous, we let participants in the present study allocate campaign ads freely to participants in the future study. For instance, a participant could assign 400 future participants to the CDU ad, 300 to the AfD ad, and 300 to the SPD ad.

4.3.4 Indexes

As pre-registered, to present results concisely, we calculate indexes of support for the Afd and CDU, respectively. To this end, we perform a Principal Component Analysis (PCA). For both indexes, we include all variables discussed above with the exception of likelihood of turnout. We scale all variables to have a standard deviation of one and such that higher values indicate greater support for the party. We then apply PCA on the standardized variables and extract the first principal component —which captures the maximum variance across these variables— and use it as a single index of party support. This index is then also standardized to have a mean of 0 and a standard deviation of 1.

4.4 Ensuring High-Quality Responses

We added several other items to increase the internal and external validity of our findings. As pre-registered, participants who either failed to solve a captcha or an attention check at the beginning of the study were routed out of the survey and contributed no data. Moreover, to obtain

[2]We focus on these two parties because this measurement is time consuming and, theoretically, our treatment should mostly affect attitudes toward these parties. We follow Falk et al. (2018) and use a "staircase method" for elicitation of this willingness to pay. In particular, participants answer a series of 4 or 5 binary questions where the amount we offer them to agree with the donation adapts to their previous answers. This allows us to create a fine-grained measure with a small number of questions and without asking multiple questions in the same screen (as it would be the case with a Multiple Price List.) See Appendix D for details.

a broadly representative sample, we elicited socio-demographic characteristics at the beginning and at the end of the survey. Table 1 compares the socio-demographic characteristics of our sample with the adult German population and Table 2 shows balance tests across treatments. To increase the likelihood of true reporting, we followed Alesina et al. (2023) and warned respondents that their responses could be flagged as low-quality to the recruiting platform if they did not read the instructions carefully and did not answer to the best of their knowledge.

In addition, we included a second attention check at the end of the survey, which around 90% of participants passed. To examine the possibility of experimenter demand effects, we asked participants whether they found the survey politically biased in either direction. As Figure 12 in the Appendix shows, nearly 80% perceive no survey bias, and the distribution of perceived political bias is symmetric. To check whether participants trusted the information, we elicited posterior beliefs and asked them directly to what extent they trusted the information at the end of the survey. Importantly, participants trust the provided information to a similar degree across all treatment conditions (Table 2). We use these three items for pre-registered robustness checks below.

Finally, following standard practices by the market research company we collaborated with, participants who completed the survey very quickly (that is, in less than one-third of the median completion time in the soft-launch phase) were replaced with new participants. This criterion led to the exclusion of 87 participants (1.7% of all participants who completed the survey). We included these participants in a fourth robustness check below.

4.5 Procedure

We designed the survey using Qualtrics and recruited participants via the established market research company Cint. Our study includes two surveys, a main study and an obfuscated follow-up study (described in the next section), for which we invited only those who completed the main surveys. The survey was fielded from December 16, 2024 to February 22, 2025. The 2025 German federal election took place on February 23, 2025.

The timing of data collection—in the weeks leading up to the 2025 federal election—was deliberately chosen. First, the proximity to the election likely increased participants' atten-

tion to political content, including our information provision, thereby enhancing the credibility and salience of our treatments. Second, this period was marked by substantial uncertainty regarding the CDU's ideological direction. Although Friedrich Merz, recently elected as party leader, had a history of representing the CDU's conservative wing, the party's broader trajectory remained unclear. Previous leading CDU politicians—such as Angela Merkel, Horst Seehofer, and Markus Söder—had often oscillated between conservative and liberal positions with Merkel, most notably, ultimately embracing a more liberal course. This ambiguity around CDU policy stances was reflected in the high variance of pre-treatment beliefs measured in our survey and provided a fertile context for our participants' belief updating. In this environment, our intervention had great potential to shift perceptions about the CDU's immigration stance.

As pre-registered, we aimed for a sample of 5,000 observations which is broadly representative of the German adult population in gender, age, and education. We planned to over-sample the Eastern states, aiming for 3,000 participants from Eastern Germany and 2,000 from Western Germany because the AfD has traditionally had a stronger support in Eastern Germany (as shown in Figure 11). Since multiple participants were allowed to begin the survey simultaneously (with some attrition during the survey, e.g., because of the eligibility screeners and the initial attention check) and socio-demographic quotas were soft, we ended up with a slightly larger than planned sample: 5,040 participants (2,003 from West Germany and 3,037 from East Germany). The median completion time was 10.4 minutes.

4.6 Follow-Up Study

To mitigate potential experimenter demand effects and assess the persistence of treatment impacts, we conducted an obfuscated follow-up study approximately one week after the main experiment. The follow-up was distributed to the same participants via the same survey firm but designed to appear unrelated to the initial study. We altered the visual layout, tone, and wording to obscure any connection, making it difficult for respondents to link the two surveys. The follow-up was intentionally brief, including only two outcome measures: a feeling thermometer rating for parties and vote intentions. These were selected as standard survey questions commonly encountered in political polls, reducing the likelihood of suspicion. The thermometer

question was rephrased differently from the main survey to further minimize associations.[3]

Even though participants who completed the main study were invited repeatedly and the hourly wage for completing the follow-up survey was higher than in the main study (as the median completion time was 2.4 minutes), the recontact rate was low. Out of 5,040 participants to the main study, only 1,953 (38.75%) contributed at least one outcome measure in the follow-up study. Table 1 compares the two samples and it shows that attrition was non-random: the follow-up sample is notably younger than the main sample and has a greater proportion of Western participants. Nonetheless, we present the results from the follow-up study as pre-registered.

5 Empirical Strategy and Identification

This section describes how we identify the causal effects. Our analysis leverages the randomized assignment of information about the CDU's immigration stance to estimate both the average treatment effect of information exposure and the average treatment effect of an increase in the perceived representation gap.

5.1 Estimating the Effect of Information Provision

As pre-registered, we estimate the direct effect of information provision (Reduced Form; RF) on a range of outcome variables using ordinary least squares (OLS). The treatment variable is a four-level variable corresponding to the randomly assigned signal about the CDU's immigration position. We treat it as a continuous variable and estimate:

$$y_i = \alpha + \beta \cdot \text{CDU}_i + \theta \cdot X_i + \varepsilon_i, \tag{1}$$

where y_i is an outcome of interest (e.g., intention to vote for the AfD), CDU_i denotes the treatment assignment (4, 5, 6, or 7), and X_i is a vector of covariates including age, gender, education, and pre-treatment beliefs about the CDU immigration stance.

[3]While both versions asked participants how they feel about each party (with wording taken from GLES 2023), participants in the follow-up study had to enter a number between 0 and 100 while they were confronted with 11 horizontally arranged answer options in the main study (as in Braghieri and Eichmeyer 2024).

The coefficient β captures the average causal effect of receiving a signal that portrays the CDU as more conservative on immigration policy (that is, championing more restrictions on immigration). This specification answers the question: *How does informing participants that the CDU candidates are more conservative on immigration change their political attitudes and behaviors?*

5.2 Estimating the Effect of Representation Gaps

While the econometric specification from the previous subsection estimates the direct effect of the information we provide, our primary interest lies in the causal effect of the *perceived representation gap*, defined as the distance between a participant's own immigration attitude and the same participant's (post-treatment) perceived attitude of the closest mainstream party (that is, the closest party other than AfD). Our focus on this effect is motivated by its more straightforward interpretation and real-world relevance: it directly captures how changes in voters' beliefs about parties' policy stances (something which can be measured outside of our lab-in-the-field setting) influence their political attitudes and behaviors. In contrast, the meaning of the mere treatment effect is less straightforward, as it depends on how participants interpret the information and update their beliefs in response to it, something which does not have an easily interpretable and measurable real-world analog.

To identify the causal effect of the perceived representation gap, we exploit the randomized information about the CDU immigration stance as an instrumental variable, which induces exogenous variation in the perceived representation gap. Our target parameter is the average effect of the perceived representation gap, which answers the following question: *What is the effect of feeling better represented by mainstream parties for the average participant?*

It is well known that standard two-stage least squares (2SLS) estimators target weighted averages of individual causal effects (Imbens and Angrist, 1994). In information provision experiments, these weights are proportional to the first-stage effect of information on beliefs. This creates a potential problem: strong dependence between belief updating and belief effects makes estimates from standard 2SLS substantially misrepresent average effects. To tackle this issue, we adopt the method proposed by (Balla-Elliott, 2025) which identifies the unweighted average

effect. The resulting two-stage least squares specification is as follows:

$$\text{Representation Gap}_i = \gamma_0 + \gamma_1 \cdot \text{CDU}_i + \gamma_2 \cdot X_i + \nu_i, \tag{2}$$

$$y_i = \alpha + \beta \cdot \widehat{\text{Representation Gap}}_i + \theta \cdot X_i + \varepsilon_i, \tag{3}$$

where Representation Gap_i is the endogenous perceived representation gap, CDU_i is the randomly assigned treatment signal (4, 5, 6, or 7, treated as continuous), and X_i includes control variables (age, gender, education, and pre-treatment beliefs about CDU immigration stance). In this specification, due to the way we scale the variables, the coefficient β in the second stage represents the average effect of believing that the gap *decreases* on the outcome of interest.

6 Results

6.1 Manipulation Check

6.1.1 Posterior Belief Updating

To check whether our treatment shifts party position beliefs as intended, we conduct a pre-registered exercise comparing (i) the distance between prior (that is, pre-treatment) beliefs about the CDU immigration stance and the information received, and (ii) the distance between posterior (that is, post-treatment) beliefs and the information received. A valid treatment should reduce this distance, indicating belief updating toward the signal (Haaland et al., 2023). The average distance between posterior beliefs and the signal (≈ 1.8) is significantly smaller than the average distance between prior beliefs and the signal (≈ 2.6), according to both a t-test and a Wilcoxon signed-rank test ($p < 0.01$). Figure 13 in the Appendix provides boxplots of prior and posterior beliefs. Moreover, our manipulation only affects beliefs about the CDU, keeping beliefs about other parties unchanged. Finally, the treatment affects both beliefs about the current CDU position and about the position it will hold in 5 years (Figure 8).

6.1.2 Instrument Relevance

Appendix A.1 documents that most participants hold conservative views on immigration, with a substantial share even more conservative than the average AfD candidate.[4] The information treatment significantly shifts participants' posterior beliefs about the CDU's immigration stance: more conservative signals move perceived CDU positions to the right. Given the distribution of participants' attitudes, this implies that the signals typically shift participants' beliefs about the CDU closer to their own positions. Consistent with this interpretation, Appendix A.1 shows that more conservative signals lead participants to place the CDU nearer to themselves and to report stronger feelings of representation by the party after the treatment.[5] Thus, conservative signals shrink the perceived representation gap—that is, the distance between a participant's own attitude and the position of the closest mainstream party (Figure 9). Manipulating this construct is central to our instrumental-variable strategy, in which information about the CDU serves as an instrument for the endogenous representation gap. Instrument relevance is confirmed by first-stage F-statistics of approximately 82 (Figure 10), well above conventional thresholds for strong instruments (Cameron and Trivedi, 2005; Staiger and Stock, 1994).

Figure 10 in the Appendix shows that the effect of information on posterior beliefs is consistent across nearly all sources of heterogeneity, such as participants' perceived importance of immigration and their region of residence (East vs. West). The only exception concerns participants' own immigration attitudes. For those with attitudes below 7 on the 0–10 scale—i.e., participants who are not more right-wing than the most conservative CDU signal—the perceived representation gap is not significantly affected by the treatment, and the corresponding F-statistics fall well below conventional thresholds for instrument relevance. This pattern is unsurprising: for participants on the left (positions of 4 or lower), the closest party is typically another mainstream party, so shifts in the CDU's perceived position do not alter their representation gap. For participants with attitudes of 5 or 6, however, a rightward shift in the CDU position may either reduce or increase the gap, depending on whether the CDU is perceived to move from 4 to 5 or from 5 to 7. We exploit this variation below to test for asymmetric effects.

[4] These results remain robust after adjusting for our intentional oversampling of East Germans (Figure 7).

[5] The same appendix shows that more conservative signals reduce participants' perceived representation by the AfD.

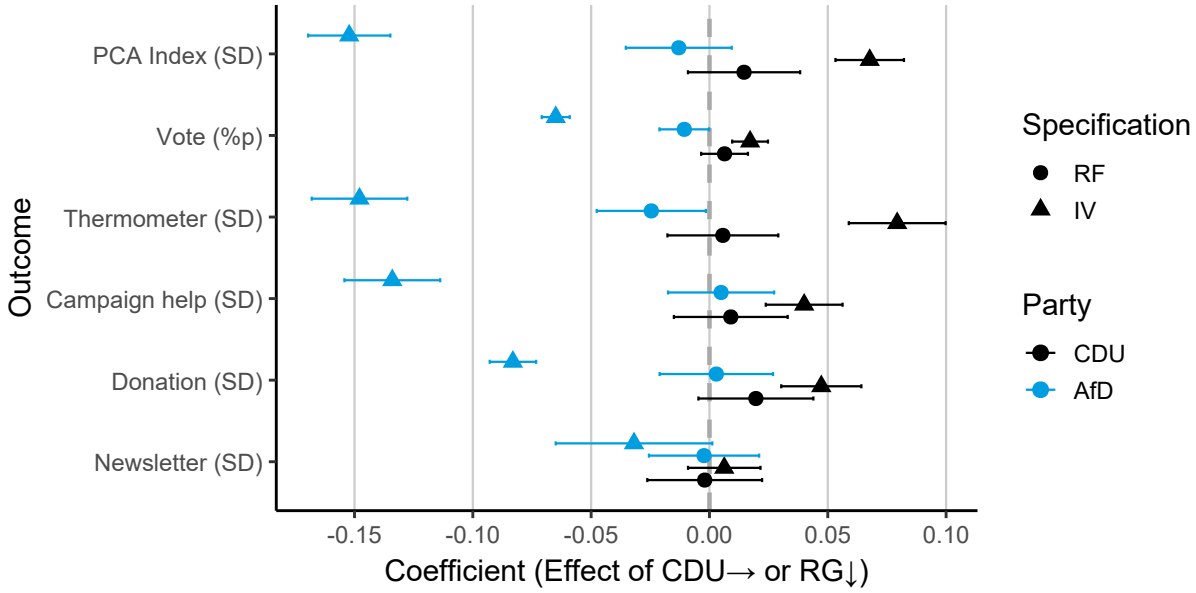


Figure 4: Effects of Treatment (RF) and Perceived Representation Gap (IV)
Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. Coefficients show the effect of either a one-unit increase in the CDU signal or a one-unit decrease in the perceived representation gap.

6.1.3 Exclusion Restriction and Cross-Learning

A general challenge of information provision experiments is cross-learning, that is, the possibility that participants update beliefs other than the one the researchers want to manipulate. Within an IV framework, this implies that the exclusion restriction is violated (Haaland et al., 2023). To perform a pre-registered test of this threat, we measured (i) participants' own immigration attitude after the treatment and (ii) their perceived likelihood of different government coalitions after the election (a consideration that might induce strategic voting). If the information we provide is a valid instrument for the perceived representation gap, it should not affect these two outcomes. Reassuringly, Subsection A.2 shows that there is no evidence of a statistically significant or economically meaningful effect of the information on participants' own post-signal immigration attitude or their beliefs about government coalitions (Figure 9).

6.2 Main Results

Figure 4 presents estimated effects for all pre-registered specifications. Tables 4, 5, 6 and 7 in the Appendix show the corresponding regression tables. In this as well as later figures, circles refer to RF estimates while triangles indicate Balla-Elliott (2025) IV estimates. Moreover, dependent

and independent variables are always scaled such that we estimate the effect of displaying the CDU as one point more right-wing (on an 11-point scale; RF) or the effect of a one-unit decrease in the perceived representation gap (on the same 11-point scale; IV). To ease interpretation of effect magnitudes, voting intention is scaled in terms of percentage points, while all other outcomes are standardized.

The RF estimates show that a signal portraying the CDU as more conservative on immigration significantly reduces positive feelings toward the AfD and the likelihood of voting for it, with effects statistically significant at the 5% level. Effects on incentivized behavioral outcomes (e.g., donation decisions) are far from statistical significance. The PCA indexes have the expected signs but fail statistically significance at the 5% level.

The IV estimates, which capture the causal effect of the perceived representation gap (instrumented by the signal), reveal strong and statistically significant effects, particularly for the AfD. Nearly all outcomes, including incentivized behavioral measures, are affected in an economically meaningful and statistically significant way. For instance, decreasing the perceived representation gap by one unit decreases voting for the AfD by about 7 percentage points (the AfD received 20.8% of the vote in the 2025 federal election). For more context, during the 2015 European migrant crisis, the perceived leftward shift of the CDU increased the representation gap by approximately 1.5 units. Notably, the effects of the perceived representation gap is asymmetric: even though they go in opposite directions, the effect on AfD support is much stronger than on the CDU support. We discuss potential reasons for this asymmetry below.

RF and IV estimates have the same sign but differ in magnitude and statistical significance. These differences are informative and worth investigating. The discrepancy could be due to the fact that different participants update their beliefs differently after receiving the information. To explore this possibility, we conduct our analyses on the subsample of participants whose post-treatment beliefs about the CDU are weakly closer to the signal than their pre-treatment beliefs (i.e., "consistent updaters"). In other words, these analyses exclude the subsample of participants whose post-treatment beliefs are strictly further away from the signal than their pre-treatment beliefs (i.e., "inconsistent updaters").

Figure 17 in the Appendix shows that, in this subsample, RF coefficients are larger than in

the whole sample. Hence, our interpretation of Figure 4 is that merely providing our participants with information does not affect outcomes, partly because some participants update their beliefs away from the signal. At the same time, changing participants' beliefs about the representation gap does strongly affect party support.[6]

Figure 14 in the Appendix shows analogous results from the follow-up study: for example, a one-unit decrease in the perceived representation gap reduces AfD-voting by around 7% points in the main study and by around 6% points in the follow-up study and both IV estimates are stastically significant at the 1% level. As in the main study, the effects are stronger for the AfD than for the CDU. Finally, Table 8 in the Appendix shows estimates for an additional pre-registered outcome, voting abstention. We do not find evidence of any effect across specifications (RF, IV) and studies (main, follow-up).

Relating these findings to the theoretical frameworks in Section 3, our results contradict the predictions of the Legitimation Theory. That perspective holds that, if the CDU were to close the representation gap by shifting rightward, it would legitimize the AfD's position and thereby increase AfD support. In contrast, we find the opposite: when the CDU is perceived as narrowing the gap, AfD support declines. The Protest Voting Theory is also inconsistent with our results, as it predicts no systematic effect of mainstream party positioning. By contrast, the Representation Gap perspective, based on a spatial model of voting, aligns with the patterns we observe.

6.3 Heterogeneous Effects

Because the effect of the signal is largely insignificant and we are primarily interested in the effect of the perceived representation gap, we now focus on the latter variable. Figure 5 examines how the effects of the perceived representation gap differs across all pre-registered sub-groups. Regarding the perceived importance of immigration we distinguish between those who find immigration "Important" or "Very Important" (top 2 answer options on a 5-point scale; $\approx$ 72%)

[6] Table 3 compares the observable characteristics of consistent and inconsistent updaters. The two subsamples have similar demographics. However, they hold different beliefs about party positions. In particular, inconsistent updaters are more likely to hold objectively incorrect beliefs, such that the AfD is not the most conservative party on immigration or that the AfD is liberal on immigration. Moreover, these participants are more likely to fail a second attention check, hinting at the possibility that these participants are less attentive.

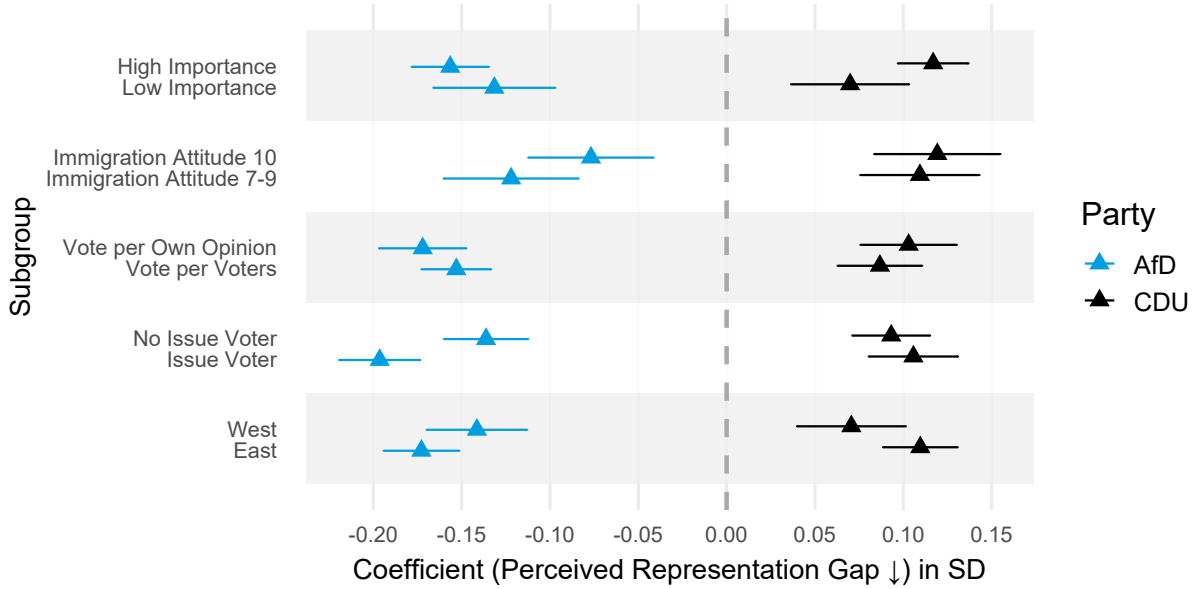


Figure 5: Effects of Treatment (RF) and Perceived Representation Gap (IV) on PCA Indexes
Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. Coefficients show the effect of either a one-unit increase in the CDU signal or a one-unit decrease in the perceived representation gap.

and all other subjects. Concerning the participants' own immigration attitudes, we exclude those with attitudes below 7 because the instrument is weak for them (Figure 8). Hence, we differentiate between those who choose the most extreme anti-immigration response (10) and all others who are as right-wing or more than the most right-wing signal (7–9), because the resulting groups are of similar size. Moreover, we distinguish between those who state that, if a parliamentarian has a different opinion than his voters, he should vote per his own opinion (≈ 41%) and those who think he should follow the voters' opinion (≈ 59%). We also differentiate between subjects who state to mainly vote based on which party represents their attitudes best (issue voters: ≈ 54%) and those who give any other main reason for their vote choice. Finally, we distinguish between subjects who reside in West and East Germany.

We find that a decrease in the gap increases CDU voting and decreases AfD voting for all groups. However, the effects are stronger for participants who care more about immigration, participants who vote based on political issues (rather than, e.g., candidates' characteristics) and participants from East Germany. Moreover, when conducting the analyses on two separate subsamples based on own immigration attitudes, the effect on the AfD and CDU are approximately symmetric. This suggests that the stronger effect on AfD voting documented above, which relied

on the full sample, is due to voters who are not strongly opposed to immigration.

We explore this idea in Figure 19 in the Appendix. There, we estimate the effect of the posterior belief about the CDU position rather than the effect of the perceived representation gap. The signal is a weak instrument for the perceived representation gap for participants with moderate or liberal immigration attitudes, since they are best represented by mainstream parties other than the CDU. In contrast, the posterior belief about the CDU position is strongly affected by the information in all participant subgroups and the instrument is relevant for all of them. Reassuringly, Figure 19 shows that the effects of the CDU posterior belief, i.e., believing that the CDU is one unit more conservative on immigration, is very similar to the effect of decreasing the perceived representation gap (which, in on our experiment, is driven by the CDU moving to the right). In addition, Figure 19 reveals that participants with liberal immigration attitudes are less likely to vote for the CDU if perceived as more conservative, i.e., further away from them. This is consistent with the predictions of a spatial voting model. Importantly, however, we find that moderate and even liberal participants are less likely to support the AfD if they perceive the CDU as more conservative. This finding is hard to align with standard spatial voting and suggests that drivers above and beyond spatial voting are at work.

In any case, the fact that the overall treatment effect of the perceived representation gap is stronger for the AfD, can be explained by the fact that left-wing participants are less likely to vote for the AfD when the CDU fills the gap, while they do not become more likely to support the CDU.

A natural question is whether the treatment effect of increasing the representation gap differs from the effect of decreasing it. Similarly, one might wonder whether the effect is driven by any specific treatment. To answer the latter question, Figure 21 shows estimates for the effect of the perceived representation gap for all treatment combinations (e.g., only using data for treatment 6 and 7). We find that the treatment effect does not depend notably on which treatment observations we use. The same is true for the effect of the CDU posterior belief (Figure 22). To analyze whether the effect is asymmetric, Figure 20 shows estimates using (i) only data from participants for whom the perceived representation gap increases due to the signal and (ii) data for participants for whom the gap decreases. Again, we find estimates to be very similar.

These findings have two major implications: first, the fact that all subsets of treatments lead to similar estimates suggests that the effect of the perceived representation gap is linear in how far the CDU goes to the right. This increases our confidence in extrapolating the effect to scenarios that are hard to study experimentally, for example, if the CDU matched the position of the AfD. Second, the fact that the effect is symmetric is relevant from a policy perspective because it suggests that mainstream parties can win back voters from populists by closing the representation gap that they created earlier.

6.4 Robustness Checks

To assess the robustness of our main findings (Figure 4), we conducted several pre-registered robustness checks, as outlined in our pre-registration, along with one additional non-pre-registered check. Specifically, we estimated the effects of the treatment (RF) and perceived representation gap (IV) on the PCA index of all outcome variables, conditioning on: (a) participants who pass the second attention check (Figure 15), (b) participants who find the signal about parties' immigration positions credible (Figure 16), and (c) participants whose posterior beliefs about the CDU/CSU position on immigration update toward the received signal (Figure 17). Additionally, we obtained the data for participants classified as speeders and excluded by the market research company and conducted a non-pre-registered check including all participants, including those classified as speeders (Figure 18). Speeders (N=87) were excluded in the main analysis but included here to test sensitivity, as decided post hoc. Across all checks, results are highly consistent with the main findings, with similarly large and significant IV effects.

6.5 Hypothetical Election Outcomes

To illustrate the implications of our experimental findings on a broader scale, we simulate hypothetical election outcomes based on the estimated effects of changes in the perceived representation gap. These simulations are grounded in our causal estimates from the instrumental variable approach, which isolates the effect of exogenously shifting perceptions of the CDU's immigration stance. We first validate the representativeness of our sample by comparing reweighted vote intentions to the actual election results. We then explore counterfactual scenarios where

the CDU is perceived as moving rightward on immigration, closing the perceived representation gap, and quantify the potential shifts in party vote shares.

6.5.1 Validation of the Reweighted Sample

Our experimental sample was collected in the weeks leading up to the 2025 German federal election, providing a timely snapshot of voter intentions. To ensure that our sample accurately reflects the broader electorate, we applied post-stratification weights to correct for the oversampling of East Germans.

Figure 23 compares the reweighted vote shares from our sample to the official results of the 2025 federal election, which occurred shortly after after our study. The figure shows a close correspondence between the two, with our reweighted sample producing vote intentions that broadly match the actual voting outcomes. The most notable differences regard the recently founded BSW, which splintered from the Left, and the Left itself. Voting for the BSW is more frequent in our sample while voting for the Left and the SPD is less frequent. This may partially reflect the timing of our study since the Left rose in the polls rapidly in the days leading up to the election while support for the BSW declined just as quickly. In contrast, voting intentions for CDU and AfD reflect the actual election outcome rather well. Overall, this validation confirms that participants in our experiment reported vote intentions that, after reweighting, broadly align with how Germans voted nationwide, lending credibility to the external validity of our counterfactual analysis.

6.5.2 Counterfactual Election Scenarios

Building on our estimates, we simulate hypothetical outcomes of the 2025 federal election. Our estimates indicate that a one-unit increase in the posterior belief about the CDU position (on a 0–10 scale; i.e., moving the CDU one point to the right) reduces the AfD's vote share by approximately 4.7 percentage points from its actual 20.8%. Hence, we add the effect of perceiving the CDU as one unit more right-wing to the actual vote share. Assuming that the beliefs the German voting-age population held regarding the CDU are similar to our estimated prior beliefs and ignoring general equilibrium effects, this scenario has the following interpretation:

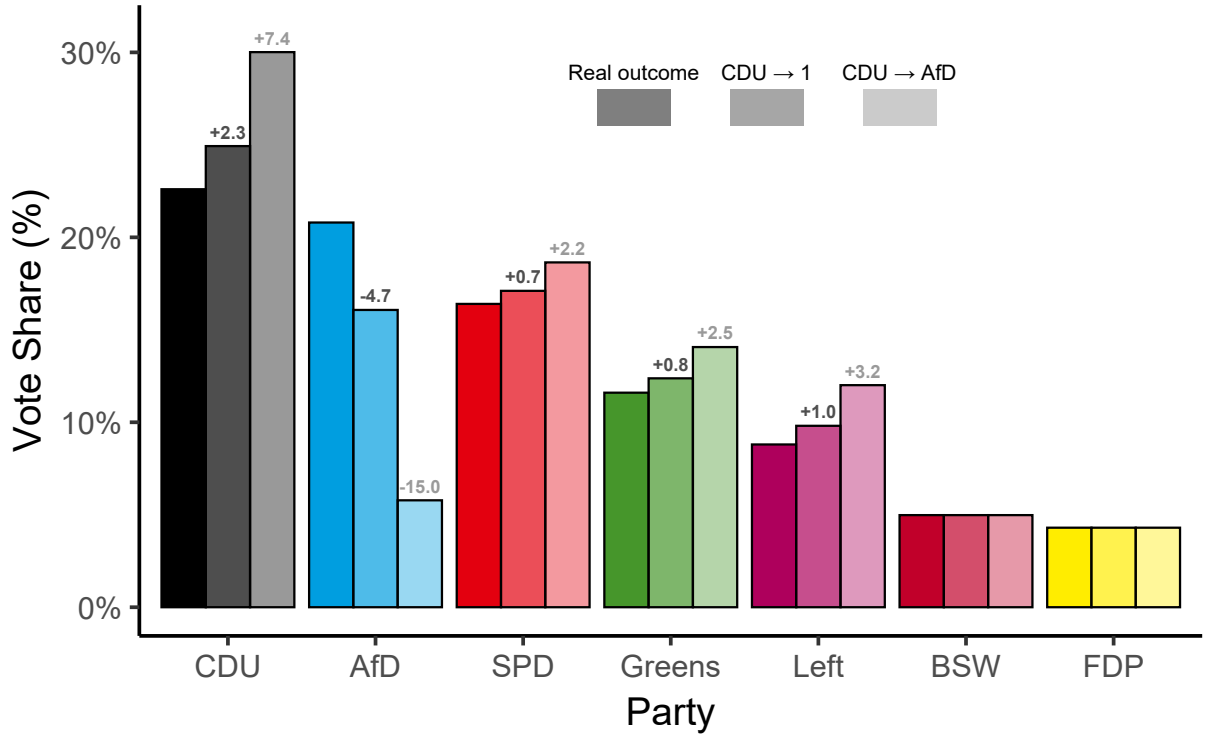


Figure 6: Hypothetical Election Outcomes Based on Shifts in Perceived CDU Immigration Stance
Note: The figure shows vote shares for major German parties under three scenarios: "Real outcome" (actual 2025 election results), "CDU → 1" (CDU perceived as one unit more conservative on a 0–10 immigration stance scale), and "CDU → AfD" (CDU perceived as equally conservative as the AfD). Labels above bars indicate the percentage point change from the real outcome for significant effects (95% confidence interval excludes zero). Insignificant effects are set to zero.

what would vote shares in the 2025 federal election be if all voting-age citizens perceived the CDU as one unit more right-wing than they did just before the election? This effect is derived directly from our experimental variation, where we manipulated perceptions within a realistic range. To simulate the election outcome if the CDU was perceived as holding the same position as the AfD, we extrapolate this effect linearly through multiplication by (9 - mean prior belief about the CDU position; 5.8).[7] While this requires linear extrapolation beyond our experimental variation, we provided evidence (see (Figure 21 and Figure 22) in Section 6.3) that the effects of the representation gap and posterior belief are roughly linear within the range of our treatment variation. Intuitively, this simulates a situation where all citizens adjust their beliefs about the CDU position by 3.2 points, such that the average citizen believes that the CDU has the same position as the AfD.

Figure 6 visualizes these counterfactuals. The "Real outcome" bars represent the actual

[7] As for the information provided in the study, we estimate the AfD position with the median stance of its candidates.

2025 election results. The "CDU → 1" scenario simulates a one-unit rightward shift in perceptions of the CDU's immigration stance. Under this scenario, the AfD's vote share drops notably while the CDU gains modestly. Other mainstream parties, such as the Greens and SPD, also see small increases, suggesting that closing the gap reallocates votes from the AfD back to mainstream parties. The "CDU → AfD" scenario extrapolates further, assuming that the CDU is, on average, perceived to match the AfD's position. In this case, the AfD loses 15 percentage points, shrinking close to the 5% threshold for parliamentary representation, and dropping from second to sixth place in the rankings. The CDU benefits more substantially (to around 30%), with gains also for the Greens, Left and SPD, effectively reversing the AfD's post-refugee crisis surge and restoring a pre-crisis configuration where mainstream parties dominate.

These simulations highlight the pivotal role of perceived representation gaps in sustaining populist support. By closing the gap through a rightward shift in CDU perceptions, the AfD's electoral viability diminishes dramatically, underscoring how mainstream parties could potentially counter populist challengers. However, the extrapolated "CDU → AfD" scenario should be interpreted cautiously, as it assumes linearity over a larger range than our direct experimental evidence supports. Moreover, at least during the last 25 years, the CDU did not make such a large shift in its position o immigration. As Figure 1 shows, during the last 25 years, only the AfD changed its position by such a large amount. In particular, the left-shift under Angela Merkel, which already led to severe internal stress, is only half as pronounced as the shift the CDU would have to make (to the right) to match the AfD position. Since the Merkel shift already caused severe internal stress, it is possible that a shift toward the AfD position leads to relevant general equilibrium effects, like a total split of the party.

7 Conclusion

Many European countries feature large and systematic representation gaps—discrepancies between voters' policy preferences and mainstream parties' positions. This paper examines whether such gaps affect electoral outcomes, in particular by boosting support for populist parties. Leveraging a large-scale information-provision experiment in the weeks leading up to the 2025 Ger-

man federal election, we show that exogenously narrowing the perceived gap on immigration—by signaling the mainstream right-wing CDU is more conservative—substantially reduces support for the far-right populist AfD. Our instrumental-variables estimates imply economically significant effects: if the CDU adopted the AfD's immigration position, which is closer to the stance of the average voter, the AfD's vote share would decline by about 75%. Hence, a considerable portion of AfD support reflects the fact that mainstream parties are perceived as more liberal on immigration than most voters. These findings are robust to the use of incentivized behavioral measures and an obsfuscated follow-up. These effects are asymmetric, with stronger erosion of AfD support than gains for the CDU, driven by heterogeneous responses across the ideological spectrum.

Our findings advance the understanding of the rise of populism by highlighting the role of programmatic supply: mainstream party positioning on salient issues shapes the electoral space available to populist challengers. Importantly, our analysis does not address why many voters hold such restrictive views on immigration, nor why this issue in particular is such a powerful driver of vote choice. Instead, our contribution is to show that these views have meaningful electoral consequences when mainstream parties and the electorate diverge. While cultural and economic grievances remain crucial in explaining why voters adopt such positions, our findings indicate that how mainstream parties respond to these grievances—whether by adjusting or maintaining their policy stances—helps determine the extent to which populist parties can capitalize on them.

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Appendix

A Details on Belief Updating (Manipulation Check)

A.1 Posterior Beliefs

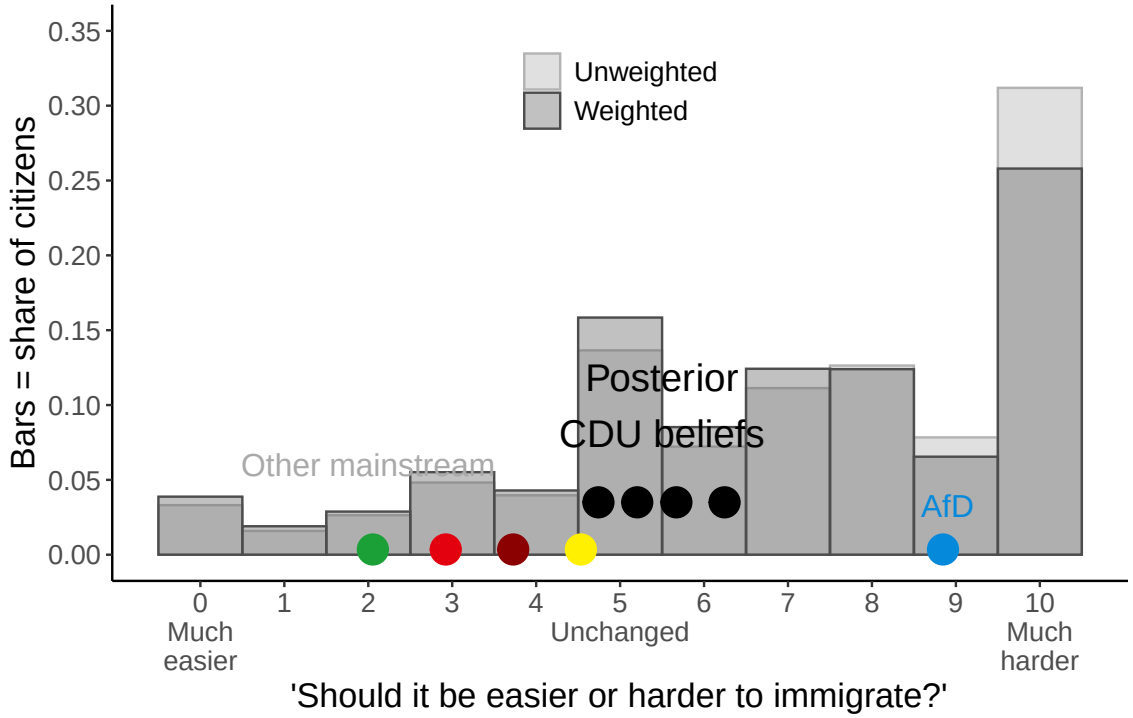


Figure 7: Post-Treatment Beliefs about CDU Immigration Stance by Treatment
Note: Bars show participants' own immigration attitudes. Unweighted bars includes the original sample, meaning that East-Germans are over-represented, while the weighted bars corrects for this bias. Black circles show average post-treatment beliefs about the CDU immigration stance for each of the four treatments. Colored circles show average post-treatment beliefs about the other parties' immigration stances pooling treatments together.

Figure 7 illustrates the impact of varying information about CDU candidates' immigration attitudes on respondents' posterior belief about the CDU immigration stance. Participants' own immigration attitudes, shown as grey bars, skew strongly to the right. Indeed, the AfD immigration stance aligns most closely with the electorate mean, median, and modal attitude. On the other hand, all other parties, including the CDU, are perceived as left-leaning relative to the electorate. Consistent with this finding, 44% of participants identify the AfD as best representing their immigration views, followed by the CDU (29%). Other parties trail (SPD: 11%, Greens: 7%, Left: 6%, FDP: 3%).

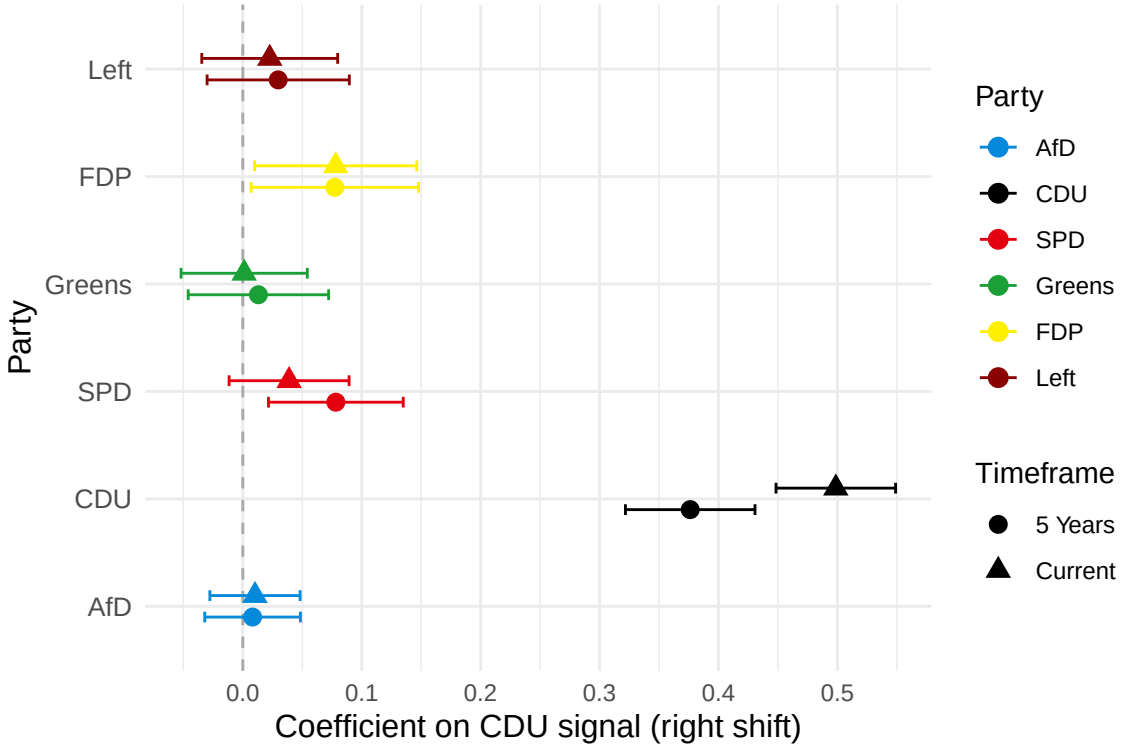


Figure 8: Treatment Effects on Beliefs about Parties' Immigration Stances

The randomized information about the CDU effectively shifts posterior beliefs: one-unit increase in the signal induces an approximate 0.5-unit update in beliefs about the CDU. For example, participants receiving a signal of 4 update their posterior belief to 4.7 (from a prior belief of 5.8), perceiving the CDU as more liberal on immigration. Conversely, a signal of 7 raises the posterior belief to 6.2, positioning the CDU closer to the AfD than to the SPD. Across treatments, the CDU perceived position remains between the AfD and the other mainstream parties. Finally, Figure 8 reveals that the information also significantly affects beliefs about the CDU position in 5 years, although the effect attenuates slightly from around 0.5 to around 0.4 units. Figure 8 also shows that our treatment does not have comparable effects on the perceived long-run immigration stance of other parties.

A.2 Cross-Learning

Figure 9 shows the effect of the information on channel variables. The first panel reveals how displaying the CDU as more right-wing affects the distance between participants' self-placement and parties' placement. Reassuringly, the information mainly makes participants place the CDU

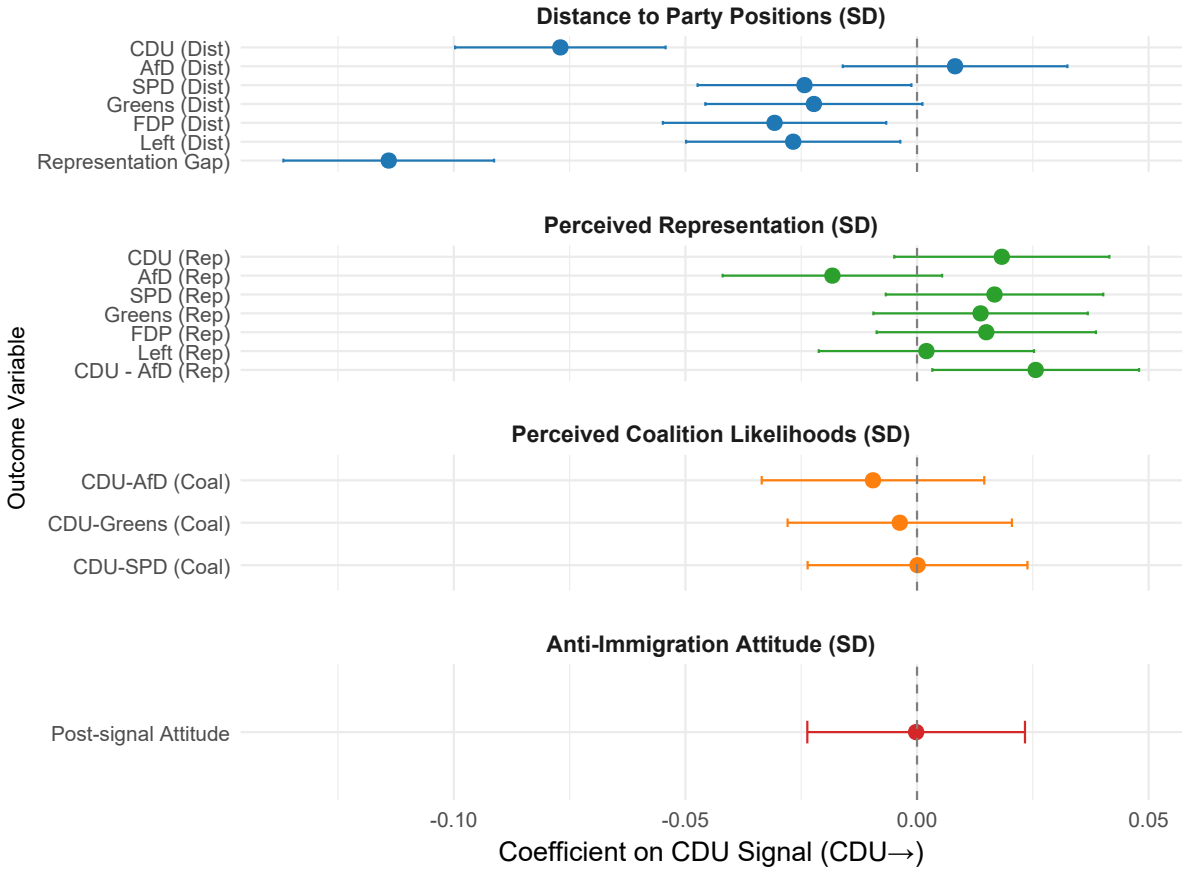


Figure 9: Effects of Treatment (RF) on Channel Variables *Note:* Bars indicate 95% confidence intervals. The independent variable (signal) can take the values 4,5,6,7. Based on Equation 1. $N = 5,040$

closer to themselves. This was expected because the treatment only varies the CDU position and most participants are more right-wing than all CDU signals. As a result, displaying the CDU as more right wing decreases the perceived representation gap.

In addition to inferring perceived representation, we also ask participants after the main outcome elicitation how well they feel represented by parties regarding the issue of immigration. As can be seen in the second panel, participants feel better represented by the CDU (and other mainstream parties) and worse represented by the AfD if the CDU is displayed as more right-wing, but the effects are not significant at the 5% level. However, the difference—how well participants feel represented by the CDU compared to the AfD—increases. Hence, the signal makes participants feel better represented by the CDU relative to the AfD.

Finally, the last two panels test for evidence of cross-learning, i.e., whether the information affects outcomes that are not related to representation and might also affect party support, (i) whether the signal changes what coalition participants expect to govern after the election and

(ii) participants' own post-signal immigration attitude. We do not find evidence of effects.

A.3 Instrument Relevance and First Stage Heterogeneity

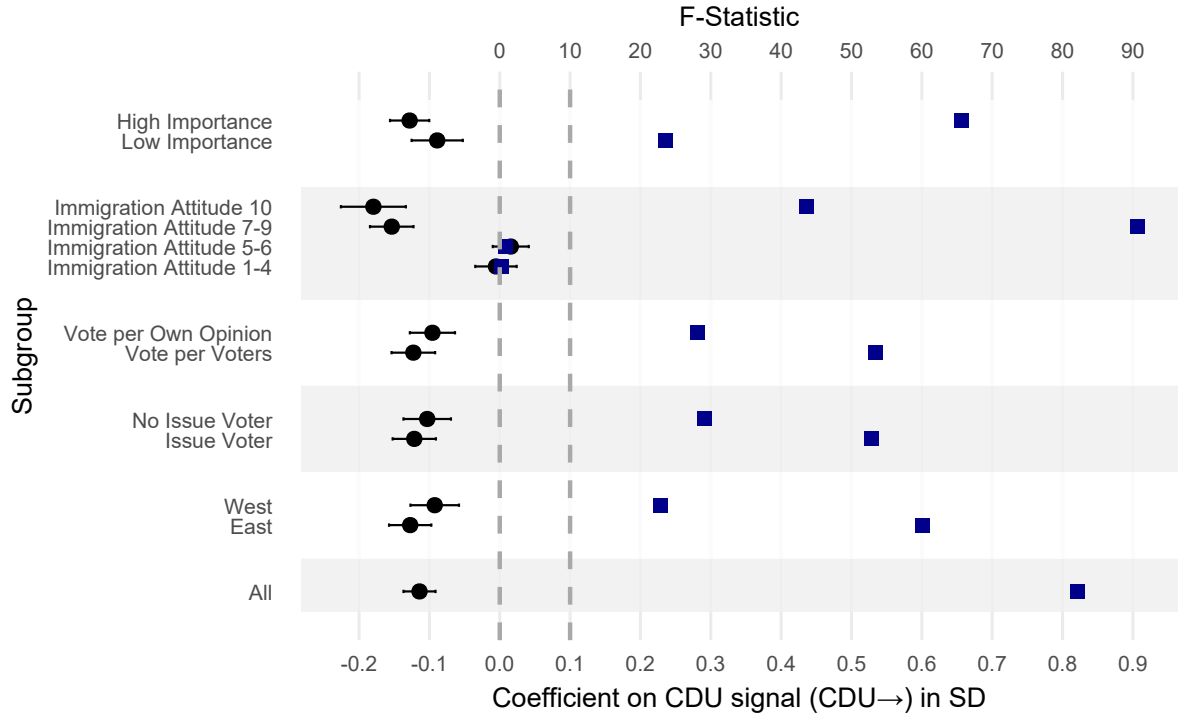


Figure 10: Effect of the Signal on the Perceived Representation Gap and F-Statistics
Note: Black dots visualize coefficients of the CDU signal on the standardized perceived representation gaps, together with 95% confidence intervals, estimated via OLS. Blue squares measure F statistics. OLS regressions include all demographic controls (with the exception of the regressions on West and East subsamples, where we exclude the East-Germany indicator), F-statistics are unconditional.

Figure 10 shows the effects of the information on the (standardized) perceived representation gap by sub-group, estimated via OLS, and F-statistics for instrument relevance. OLS regressions include demographic controls, F-statistics do not. The treatment affects the perceived representation gap similarly across sub-groups. The only exception is the participants' own immigration attitude. Participants with liberal attitudes (6 or below) are not better represented as the CDU is perceived to be more conservative. This is intuitive, since the perceived representation gap is defined as the distance to the closest mainstream party and, for most of these participants, the closest mainstream party is not the CDU. Accordingly, F-statistics exceed common thresholds for strong instruments (e.g., 10), with the exception of liberal participants. Hence, heterogeneity analyses for immigration attitudes below 7 suffer from weak instruments and we omit them.

B Additional Tables

Table 1: Descriptives and Representativeness

	Our Sample (%)		German Population (%)
	Main Study	Follow-Up Study	
Male	53.5	55.2	49.5
Immigration Background	13	14	30
University Degree	29.8	29.5	33.3
Residing in East Germany	60.3	53	14.9
Age Groups			
18–39	33.5	36.2	31.2
40–59	40.2	41.2	32.2
60+	26.3	22.6	36.6
Observations	5,040	1,953	

Note: Data on age for the German adult (18+) population refer to 2023 and are from the 2022 census available here. Percentages for age brackets are calculated using as denominator the adult (18+) population.

Table 2: Balance Tests

	Treatment				
	Signal = 4	**Signal = 5**	**Signal = 6**	**Signal = 7**	**p-value**
Age	47.685	46.828	48.173	47.387	0.158
Male	0.529	0.550	0.526	0.536	0.622
University Degree	0.311	0.312	0.273	0.297	0.114
Residing in East Germany	0.602	0.604	0.612	0.593	0.807
Pre-Treatment Own Immigration Stance	7.090	7.118	7.223	6.976	0.169
Pre-Treatment Belief about Parties					
CDU Immigration Stance	5.905	5.676	5.808	5.871	0.220
AfD Immigration Stance	8.823	8.880	8.855	8.794	0.809
SPD Immigration Stance	3.600	3.536	3.600	3.593	0.891
Greens Immigration Stance	2.595	2.543	2.586	2.582	0.959
FDP Immigration Stance	5.336	5.209	5.442	5.365	0.229
Left Immigration Stance	4.810	4.711	4.793	4.891	0.412
Found Information Trustworthy	2.990	2.937	2.974	2.979	0.959
Observations	1,249	1,232	1,295	1,264	

Note: The last column reports the p-value for the test of no difference in means across the four treatment groups for each variable. For continuous variables (Age, Pre-Treatment Own Immigration Stance, Pre-Treatment Belief about Parties), this p-value is derived from an ANOVA F-test, whose null hypothesis is that the means of the variable are equal across the four treatment groups. For binary variables (Male, University Degree, Residing in East Germany), this p-value is derived from a chi-squared test, whose null hypothesis is that the proportions are equal across the four treatment groups. Male, University Degree, Residing in East Germany are indicators. Immigration stances can vary between 0 and 10. Immigration Importance can vary between 1 and 5. Found Information Trustworthy can vary between 0 and 5.

Table 3: Participants Who Update Beliefs Consistently vs Inconsistently

	Consistent Updating	**Inconsistent Updating**	**p-value**
Age	48.084	44.823	0.000
Male	0.540	0.513	0.149
University Degree	0.302	0.278	0.156
Residing in East Germany	0.604	0.597	0.736
Immigration Importance	4.006	4.021	0.687
Pre-Treatment Own Immigration Stance	7.099	7.121	0.833
Pre-Treatment Belief about Parties			
CDU Immigration Stance	5.889	5.459	0.000
AfD Immigration Stance	8.927	8.403	0.000
SPD Immigration Stance	3.526	3.860	0.000
Greens Immigration Stance	2.507	2.913	0.000
FDP Immigration Stance	5.368	5.201	0.095
Left Immigration Stance	4.820	4.711	0.223
Most Conservative ≠ AfD	0.084	0.153	0.000
AfD Liberal	0.059	0.104	0.000
Post-Treatment Belief about Parties			
Most Conservative ≠ AfD	0.076	0.157	0.000
AfD Liberal	0.048	0.094	0.000
Found Information Trustworthy	2.961	3.015	0.148
Found Survey Biased	0.224	0.237	0.417
Completion Time (Minutes)	15.261	24.920	0.238
Failed 2nd Attention Check	0.073	0.110	0.001
Observations	4,178	862	

Note: Consistent Updating refers to the subsample of participants whose post-treatment beliefs about the CDU immigration stance are weakly closer to the signal than their pre-treatment beliefs. Inconsistent Updating refers to the subsample of participants whose post-treatment beliefs are strictly further away from the signal than their pre-treatment beliefs. Male, University Degree, Residing in East Germany, Perceived Survey Bias, and Failed 2nd Attention Check are dummy variables. Immigration Stances can vary between 0 and 10. Immigration Importance can vary between 1 and 5. Found Information Trustworthy can vary between 0 and 5. Most Conservative ≠ AfD is a dummy equal to 1 if participant believes a party other than AfD is most conservative on immigration. AfD is Liberal is a dummy equal to 1 if participant believes AfD immigration stance is strictly less than 5.

Table 4: Effects of the Signal on AfD Outcome Variables (RF)

	Dependent variable:								
	Main Study						Follow-Up Study		
	Index	Voting	Thermometer	Campaign	Donation	Newsletter	Index	Voting	Thermometer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Signal (4–7)	−0.013	−0.011**	−0.099**	0.005	0.003	−0.002	0.004	−0.001	0.009
	(0.011)	(0.005)	(0.047)	(0.012)	(0.012)	(0.013)	(0.018)	(0.008)	(0.018)
Age	−0.003***	−0.001**	−0.011***	−0.002**	−0.006***	0.006***	−0.002	−0.001	−0.002
	(0.001)	(0.0004)	(0.004)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Male	0.178***	0.063***	0.423***	0.134***	0.216***	0.105***	0.115***	0.048***	0.112***
	(0.026)	(0.012)	(0.107)	(0.026)	(0.028)	(0.028)	(0.040)	(0.018)	(0.041)
Immigrant	−0.113***	−0.082***	−0.325**	−0.111***	−0.007	0.009	−0.163***	−0.085***	−0.122**
	(0.040)	(0.019)	(0.164)	(0.040)	(0.043)	(0.044)	(0.059)	(0.027)	(0.060)
East	0.300***	0.144***	1.226***	0.243***	0.156***	0.006	0.262***	0.115***	0.243***
	(0.027)	(0.013)	(0.111)	(0.027)	(0.029)	(0.029)	(0.040)	(0.018)	(0.041)
Education	0.171***	0.077***	0.700***	0.161***	0.023	0.095***	0.195***	0.082***	0.189***
	(0.029)	(0.014)	(0.120)	(0.029)	(0.031)	(0.032)	(0.021)	(0.046)	
Constant	0.683***	0.625***	1.603***	0.667***	0.478***	−0.133	0.551***	0.587***	0.430***
	(0.093)	(0.043)	(0.381)	(0.093)	(0.099)	(0.101)	(0.144)	(0.066)	(0.147)
Prior beliefs	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	5,040	5,040	5,040	5,040	5,040	5,040	2,182	2,182	2,182
R^2	0.180	0.175	0.141	0.159	0.069	0.022	0.171	0.169	0.136

Note: Index is the PCA Index of all AfD variables. Age is measured in years. Male, University Degree, and East (Germany) are indicators. Prior beliefs includes dummies for each (except for a reference category) possible prior belief regarding the CDU position. Robust standard errors in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Table 5: Effects of the Signal on CDU Outcome Variables (RF)

	Dependent variable:								
	Main Study						Follow-Up Study		
	Index	Voting	Thermometer	Campaign	Donation	Newsletter	Index	Voting	Thermometer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Signal (4–7)	0.015	0.006	0.018	0.009	0.020	−0.002	0.009	0.011	−0.009
	(0.012)	(0.005)	(0.037)	(0.012)	(0.012)	(0.013)	(0.019)	(0.008)	(0.019)
Age	0.003***	0.001	0.003	0.006***	−0.005***	0.006***	0.005***	0.002***	0.003**
	(0.001)	(0.0004)	(0.003)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
Male	0.043	0.025**	0.002	0.018	0.068**	−0.001	0.124***	0.045**	0.113***
	(0.027)	(0.011)	(0.085)	(0.028)	(0.028)	(0.029)	(0.042)	(0.018)	(0.042)
Immigrant	0.109***	0.024	0.369***	0.071*	0.047	0.089**	0.101	0.044*	0.074
	(0.042)	(0.017)	(0.131)	(0.042)	(0.043)	(0.044)	(0.062)	(0.026)	(0.062)
East	−0.186***	−0.068***	−0.483***	−0.088***	−0.162***	−0.055*	−0.166***	−0.078***	−0.108**
	(0.028)	(0.012)	(0.088)	(0.029)	(0.029)	(0.030)	(0.042)	(0.018)	(0.042)
Education	−0.0001	0.026**	−0.047	0.040	−0.117***	−0.022	−0.016	−0.011	−0.003
	(0.031)	(0.013)	(0.095)	(0.031)	(0.031)	(0.032)	(0.047)	(0.020)	(0.047)
Constant	−0.827***	0.0003	−3.526***	−0.805***	−0.119	−0.370***	−0.847***	−0.064	−0.827***
	(0.097)	(0.040)	(0.302)	(0.098)	(0.100)	(0.102)	(0.152)	(0.064)	(0.151)
Prior beliefs	✓	✓	✓	✓	✓	✓	✓	✓	
Observations	5,040	5,040	5,040	5,040	5,040	5,040	2,182	2,182	2,182
R^2	0.099	0.049	0.127	0.052	0.048	0.018	0.081	0.053	0.086

Note: Index is the PCA Index of all CDU variables. Age is measured in years. Male, University Degree, and East (Germany) are indicators. Prior beliefs includes dummies for each (except for a reference category) possible prior belief regarding the CDU position. Robust standard errors in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Table 6: Effects of the Perceived Representation Gap on AfD Outcome Variables (IV)

	Dependent variable:								
	Main Study						Follow-Up Study		
	Index	Voting	Thermometer	Campaign	Donation	Newsletter	Index	Voting	Thermometer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Perceived RG (SD)	−0.152***	−0.065***	−0.148***	−0.134***	−0.083***	−0.032*	−0.137***	−0.056***	−0.136***
	(0.009)	(0.003)	(0.010)	(0.010)	(0.005)	(0.017)	(0.007)	(0.007)	(0.015)
Constant	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dem. Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prior beliefs	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	5,040	5,040	5,040	5,040	5,040	5,040	2,182	2,182	2,182

Note: Index is the PCA Index of all AfD variables. Age is measured in years. Male, University Degree, and East (Germany) are indicators. Prior beliefs includes dummies for each (except for a reference category) possible prior belief regarding the CDU position. Coefficients for control variables are not reported because the Balla-Elliott (2025) method does not produce separate parametric estimates for controls. Robust standard errors in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Table 7: Effects of the Perceived Representation Gap on CDU Outcome Variables (IV)

	Dependent variable:								
	Main Study						Follow-Up Study		
	Index	Voting	Thermometer	Campaign	Donation	Newsletter	Index	Voting	Thermometer
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Perceived RG (SD)	0.068***	0.017***	0.079***	0.040***	0.047***	0.006	0.041***	0.011**	0.048**
	(0.007)	(0.004)	(0.010)	(0.008)	(0.009)	(0.008)	(0.016)	(0.004)	(0.020)
Constant	✓	✓	✓	✓	✓	✓	✓	✓	✓
Dem. Controls	✓	✓	✓	✓	✓	✓	✓	✓	✓
Prior beliefs	✓	✓	✓	✓	✓	✓	✓	✓	✓
Observations	5,040	5,040	5,040	5,040	5,040	5,040	2,182	2,182	2,182

Note: Index is the PCA Index of all CDU variables. Age is measured in years. Male, University Degree, and East (Germany) are indicators. Prior beliefs includes dummies for each (except for a reference category) possible prior belief regarding the CDU position. Coefficients for control variables are not reported because the Balla-Elliott (2025) method does not produce separate parametric estimates for controls. Robust standard errors in parentheses. *p<0.1; **p<0.05; ***p<0.01.

Table 8: Effect of Signal and Perceived Representation Gap on Turnout

	Dependent variable: Vote Abstention (SD)			
	Main Study		Follow-Up Study	
	RF	IV	RF	IV
	(1)	(2)	(3)	(4)
Treatment (CDU Signal)	-0.003		−0.020	
	(0.018)		(0.018)	
Perceived Representation Gap		0.043		0.006
		(0.029)		(0.036)
Demographic controls	✓	✓	✓	✓
Observations	5,040	5,040	2,182	2,182

Note: Dependent variable: standardized self-reported likelihood to vote. Columns (2) and (4): Balla-Elliott (2025) IV estimates, instrumenting the perceived representation gap (higher values = *smaller* gap) with the treatment. Demographic controls: constant, gender, immigrant background, location of residence, education, pre-treatment beliefs. Robust standard errors in parentheses. p< 0.05, p< 0.01, p< 0.001.

C Additional Figures

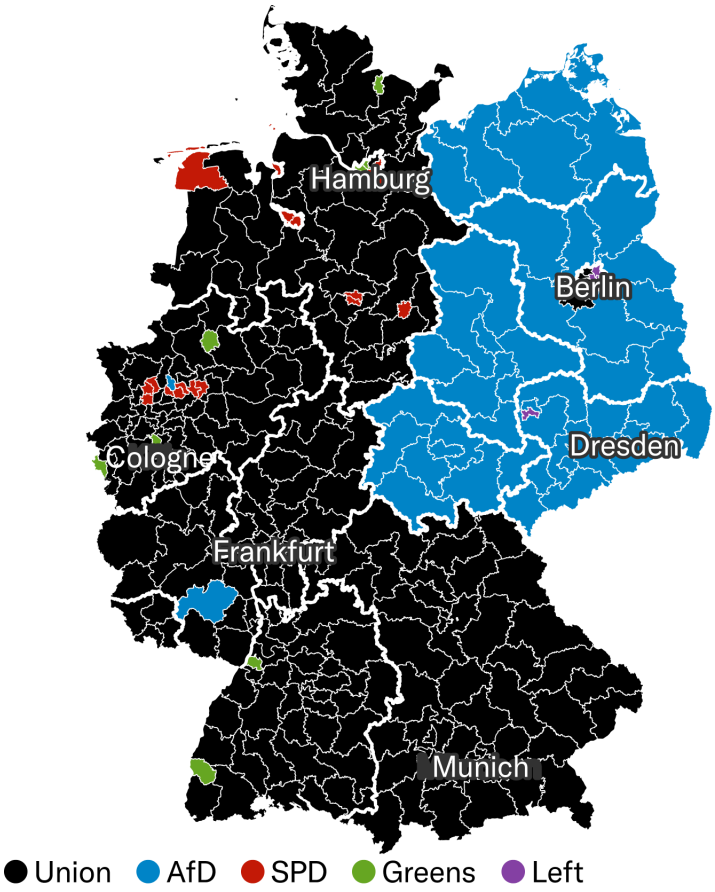


Figure 11: Party with Greatest Vote Share by Region in 2025
Note: Source is Hoppmann et al. (2025). The vote share refers to the proportion of second votes. "Union" = CDU/CSU.

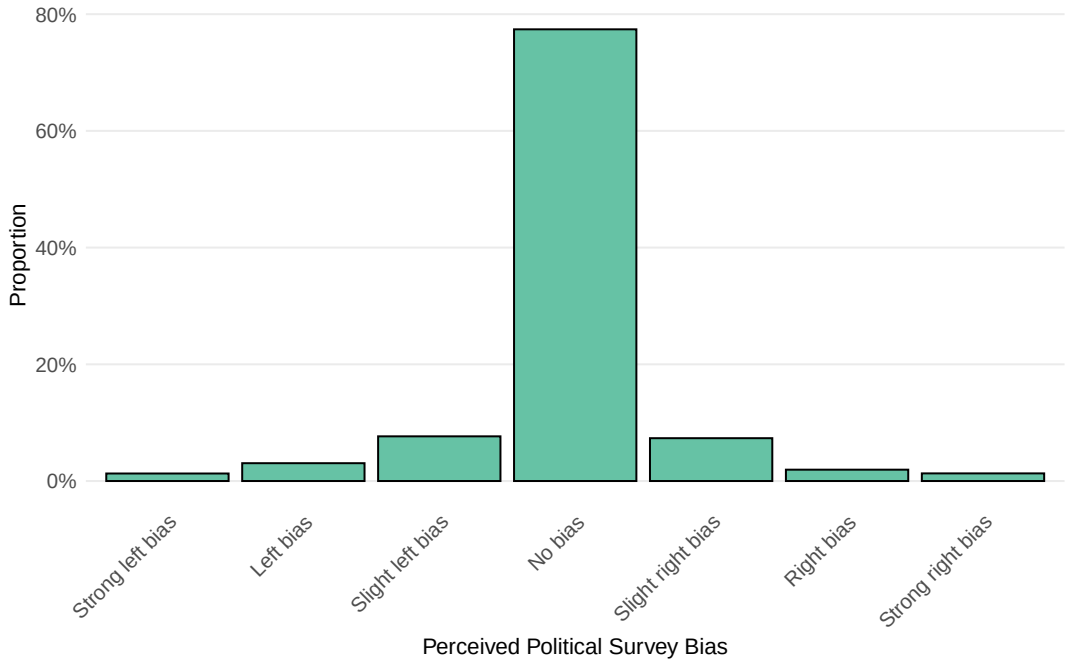


Figure 12: Distribution of Survey's Perceived Political Bias

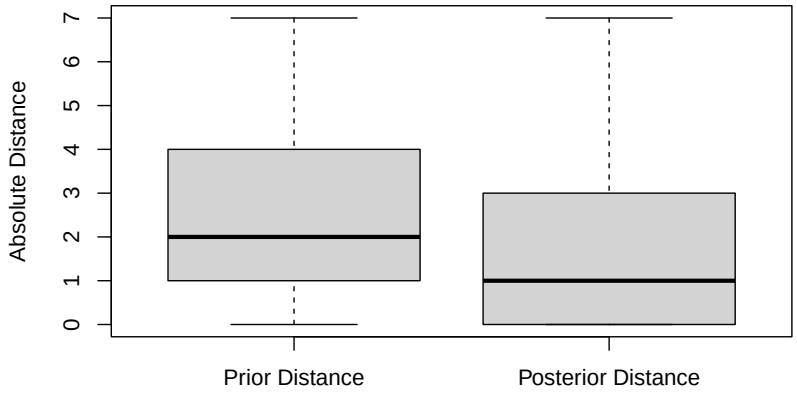


Figure 13: Difference (in Absolute Amount) Between CDU Signal and (a) Pre-Treatment Belief about CDU Immigration Stance (Left) or (b) Post-Treatment Belief about CDU Immigration Stance (Right)

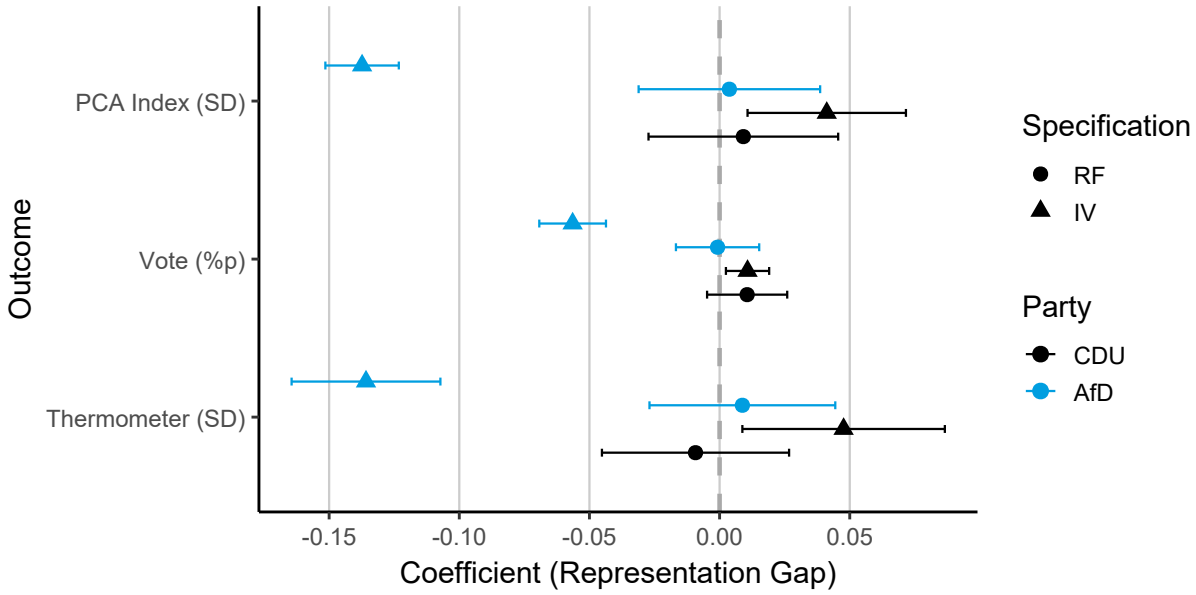


Figure 14: Effects of Treatment (RF) and Perceived Representation Gap (IV) on Main Outcomes from the Follow-Up Study
Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals.

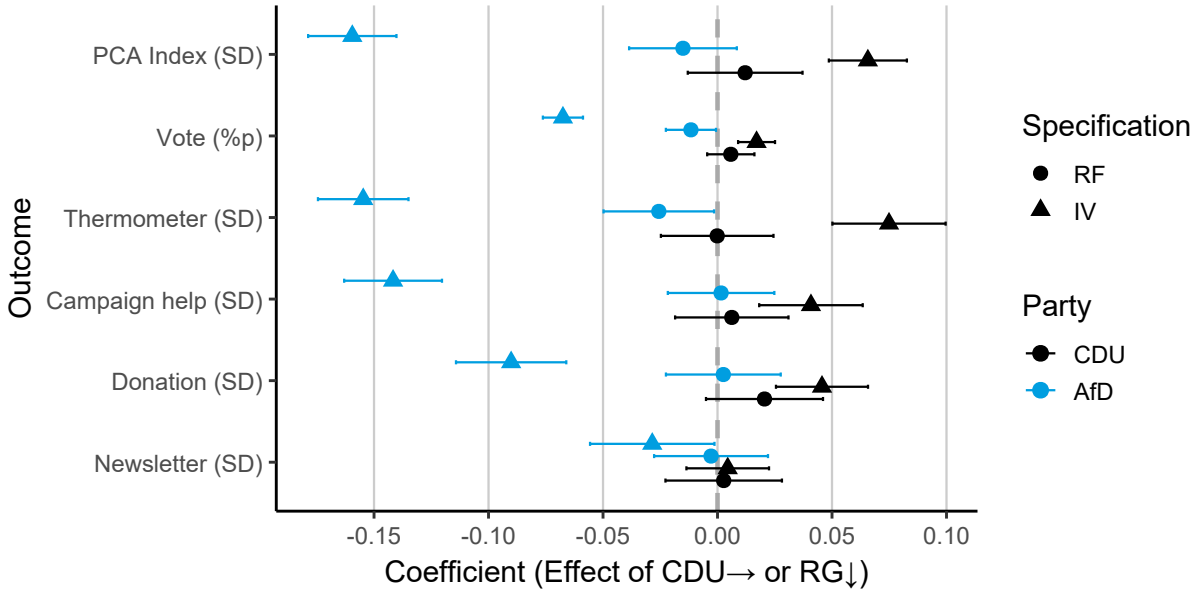


Figure 15: Effects of Treatment (RF) and Perceived Representation Gap (IV) on Participants Who Pass the Second Attention Check
Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. N=4,640.

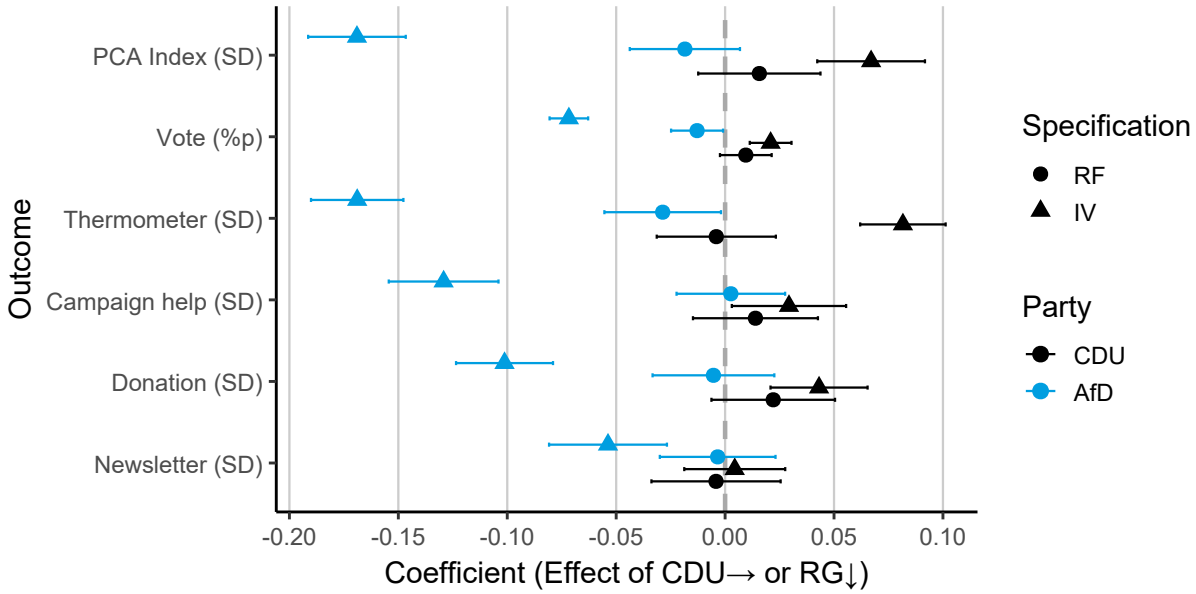


Figure 16: Effects of Treatment (RF) and Perceived Representation Gap (IV) on Participants Who Find the Signal Credible

Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. N=3,655.

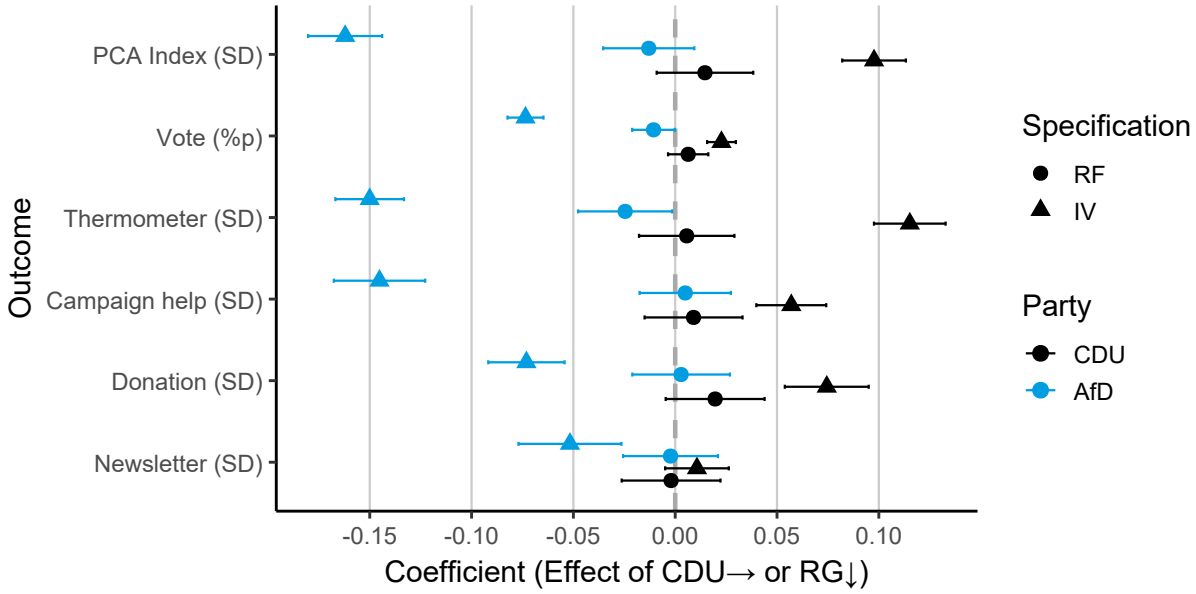


Figure 17: Effects of Treatment (RF) and Perceived Representation Gap (IV) on Participants Who Update Toward the Signal

Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. N=2,370.

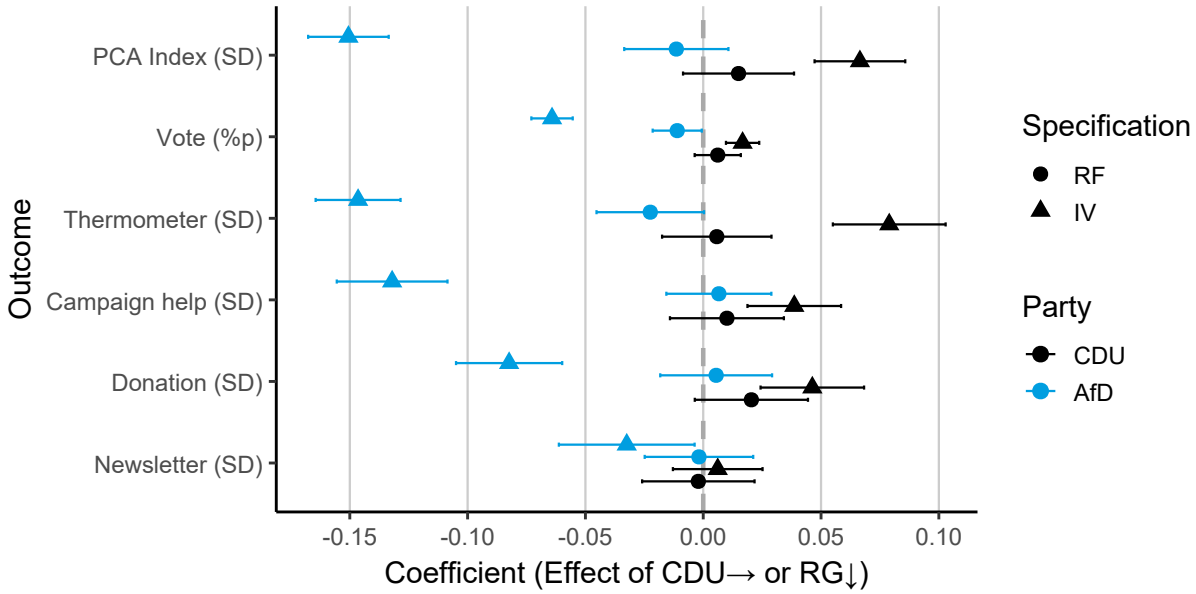


Figure 18: Effects of Treatment (RF) and Perceived Representation Gap (IV) Including Speeders
Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. N=5,127.

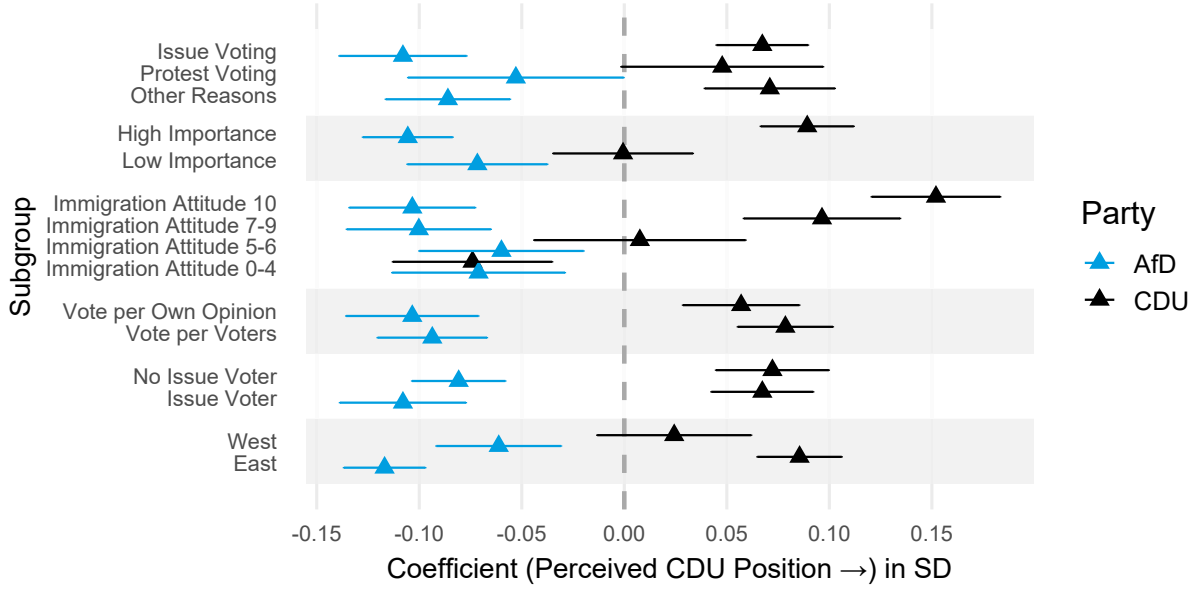


Figure 19: Heterogeneous Effects of the Perceived Position of the CDU (IV)
Note: The dependent variable is either the CDU or the AfD PCA index, which include all outcome variables for the respective party. Bars indicate 95% confidence intervals. Coefficients show the effect of a one-unit increase (right-shift) of the posterior belief about the CDU position.

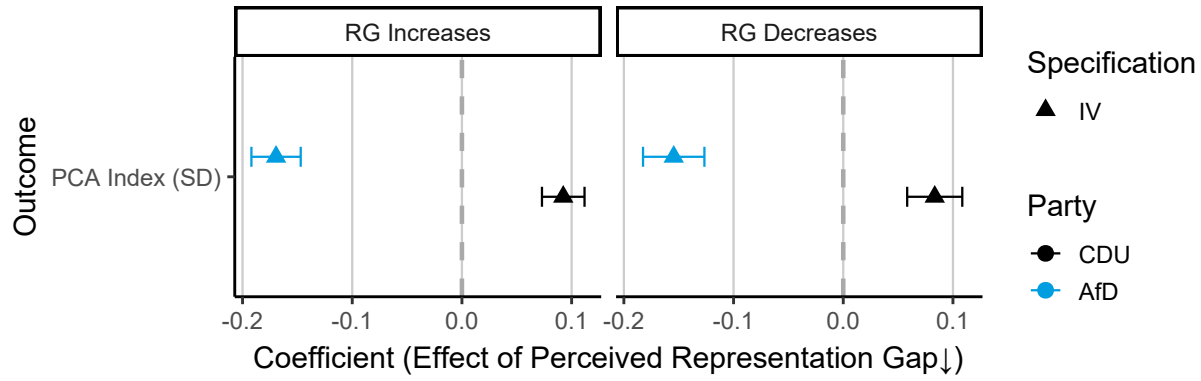


Figure 20: Testing for Asymmetric Effects
Note: This plot shows effects of the perceived representation gap (IV) on PCA indexes. The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. Coefficients show the effect of either a one-unit decrease in the perceived representation gap. The left panel only included participants for whom the perceived representation gap increased. The right panel only includes those for whom it decreased.

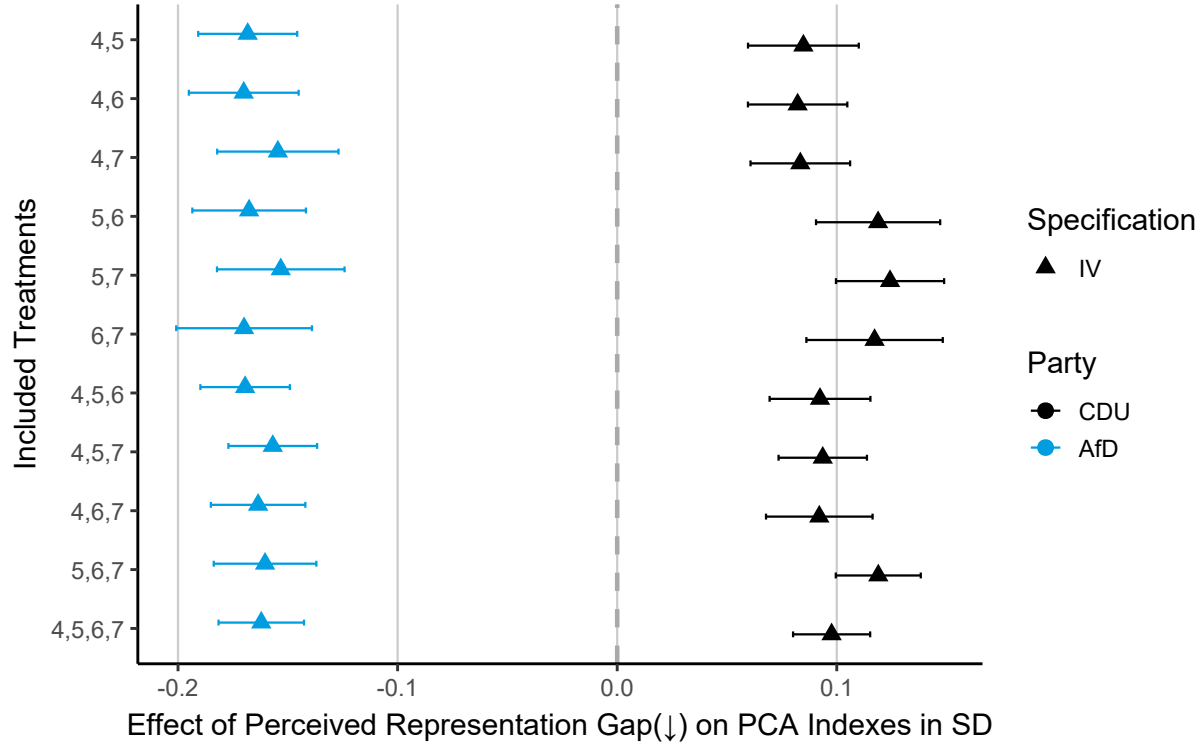


Figure 21: Effect of Perceived Representation Gap(↓) on PCA Indexes using Different Treatment Subsets
Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. Coefficients show the effect of a one-unit decrease in the perceived representation gap.

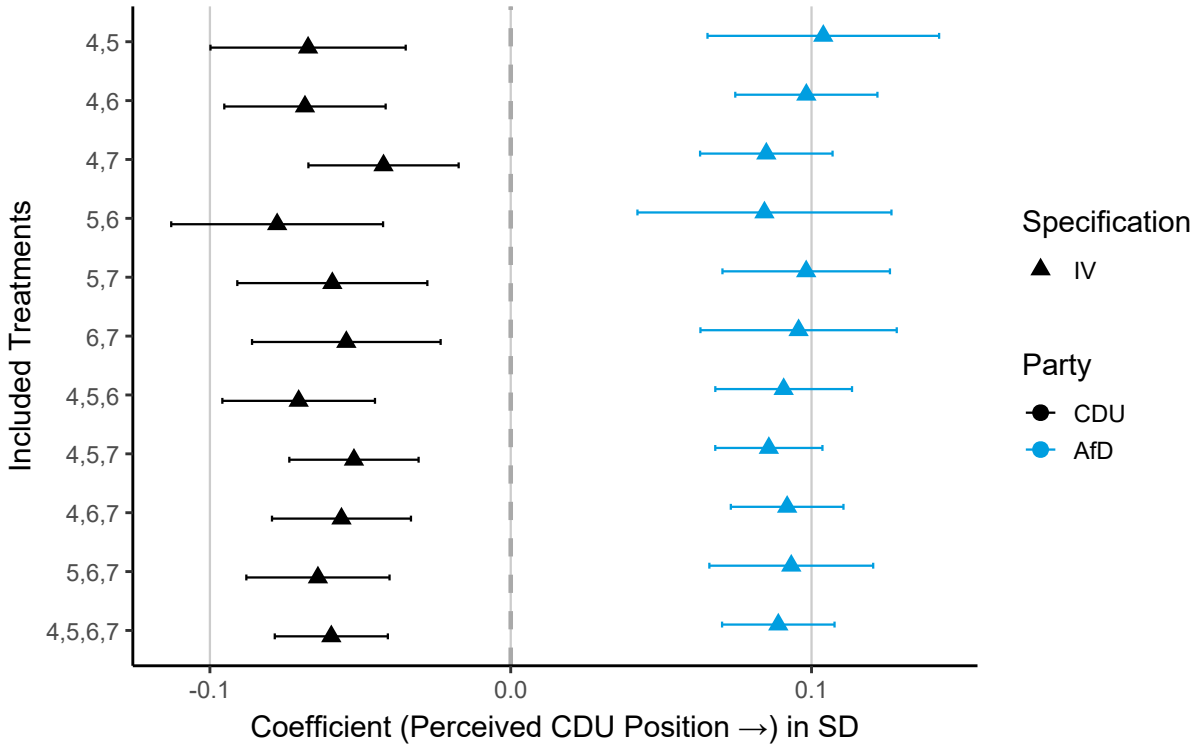


Figure 22: Effect of Perceived CDU Position (→) on PCA Indexes using Different Treatment Subsets
Note: The PCA index includes all outcome variables. Bars indicate 95% confidence intervals. Coefficients show the effect of perceiving the CDU as one unit more right-wing.

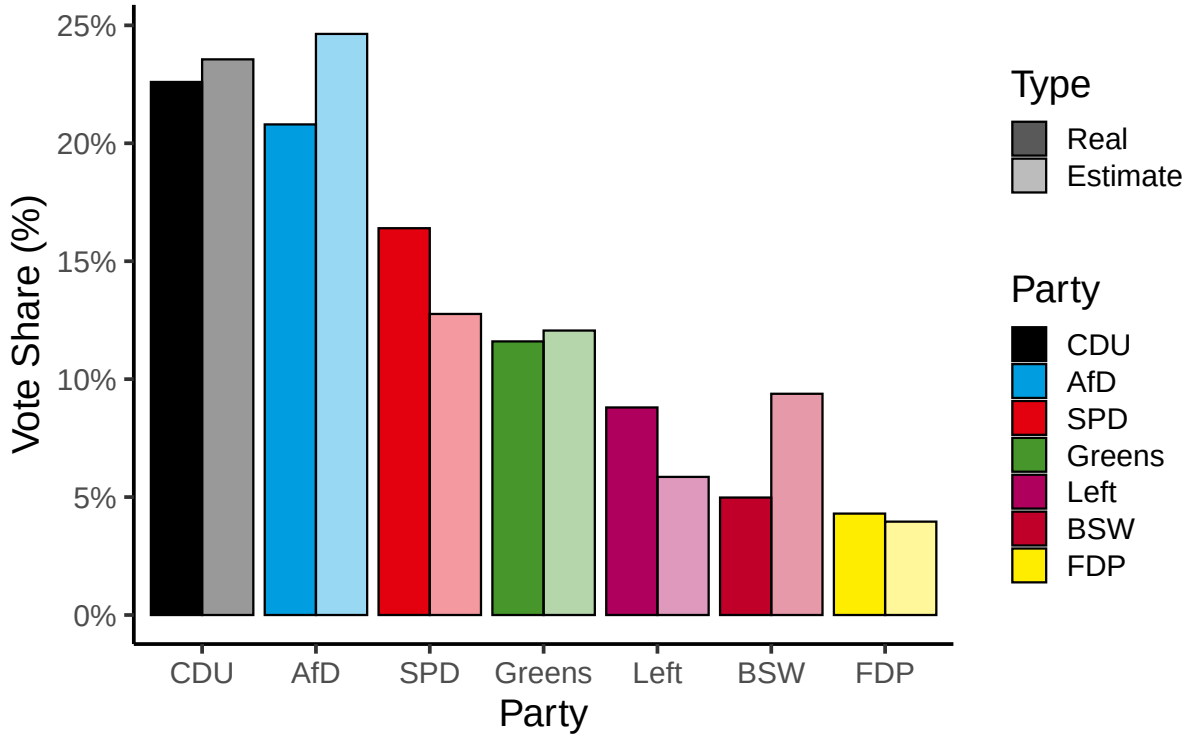


Figure 23: Reweighted Sample Vote Shares vs. Actual 2025 Election Results
Note: The figure compares vote intentions from our reweighted experimental sample to the official results of the 2025 German federal election. Reweighting accounts for oversampling of East Germany.

D Questionnaire (Translated from German)

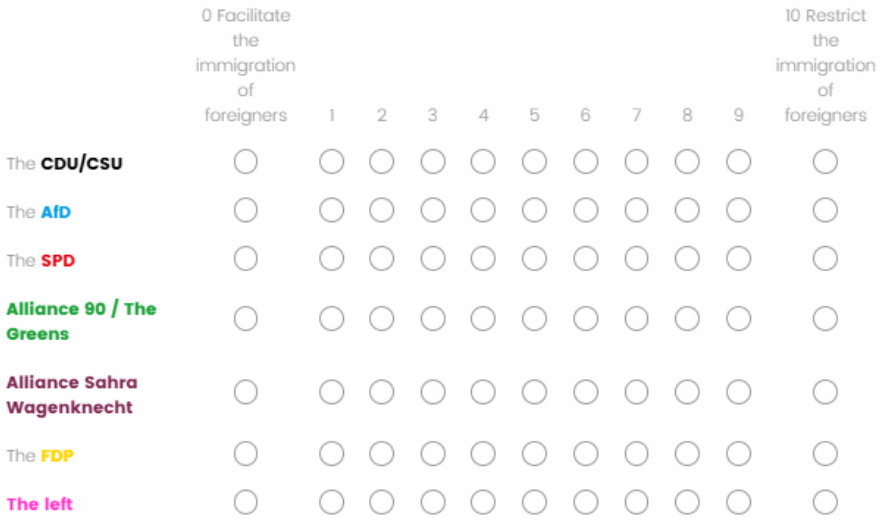
D.1 Pre-Treatment Block (Fixed Order & Constant Across Treatments)

The survey started with a screen obtaining participants' informed consent and a CAPTCHA. It continued with an attention check and demographic questions on gender, age, educational attainment, and German federal state of residency. In the fourth screen, we measured participants' immigration attitudes and beliefs about parties' stances on immigration as shown below.

Some want to facilitate immigration opportunities for foreigners, while others want to restrict them.

What is your personal opinion *on the topic of immigration opportunities? Please use the following scale from 0 to 10. 0 on the scale means that, in your opinion, immigration opportunities should be strongly facilitated. A value of 10 means that, in your opinion, immigration opportunities should be strongly restricted. You can use the values between and 10 to grade your opinion.*

What do you think, ***which policy represents****...?*



The fifth screen introduced the information provision as follows.

Scientific studies show that most Germans misjudge the positions of political parties. This is partly due to the fact that politicians often do not reveal their positions in public. Thus, scientists have long been researching how to measure the positions of political parties. As recent studies have shown, one valid method is to evaluate the responses of parties' candidates in an anonymous survey.

We used this method to measure the immigration stance of German parties. For this purpose, we analyzed the answers of some Bundestag candidates to the same question we just asked you. The currently available data is for candidates to the 2021 Bundestag election, so we have no data for Sarah Wagenknecht's Alliance yet. We will provide you with information on the responses of 502 candidates. These are broken down by party as follows CDU/CSU: 11, AfD: 58, SPD: 65, Greens: 131, FDP: 117, Left: 121.

The next page shows the results.

D.2 Treatment Block (Fixed Order & Randomized Across Treatments)

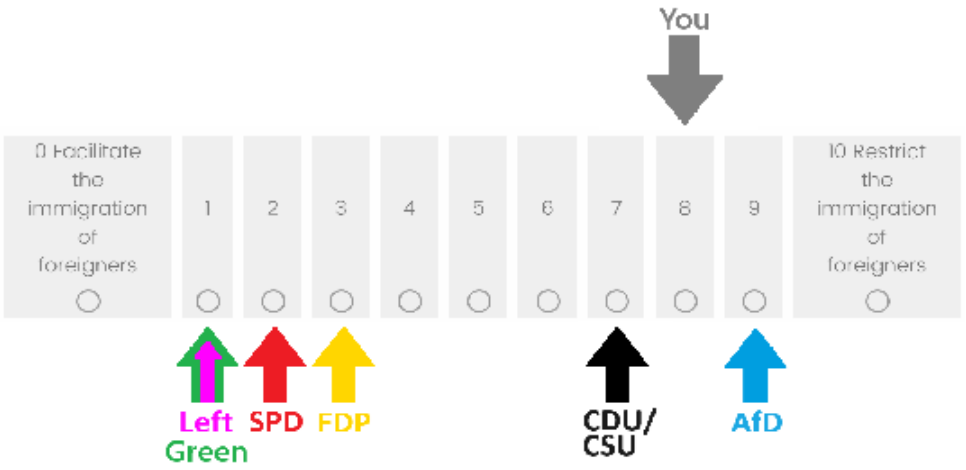
The sixth screen provided the randomized information. The following text was displayed at the top of the screen for all treatments:

The following figure illustrates the positions of German parties. The colored arrows show the middle position (median) of some Bundestag candidates of the respective party. The gray arrow shows your own position, which you indicated earlier.

Click here for details. [The middle position (also called median) is defined as follows: if you rank all positions in order of size, it lies exactly in the middle. Example: 5 CDU candidates have positions 5, 6, 7, 8, 8. Then, the middle position is 7, because two positions are smaller and two are larger than 7.]

The remainder of the screen was treatment-specific. Figure 24 shows the second half of the screen for participants assigned to the treatment where the CDU position is 7. Treatments differed by (i) the position of the "CDU/CSU" arrow (e.g., 7 in Figure 24) and (ii) the message below the figure (e.g., "CDU/CSU wants to restrict immigration opportunities" in Figure 24).

Some want to facilitate immigration opportunities. Others want to restrict immigration opportunities. What is your opinion?



As can be seen, the middle Bundestag candidate of the ...

- CDU/CSU wants to restrict immigration opportunities
- AfD wants to severely restrict immigration opportunities
- SPD wants to facilitate immigration opportunities
- Greens wants to strongly facilitate immigration opportunities
- FDP wants to facilitate immigration opportunities
- Left Party wants to strongly facilitate immigration opportunities

Figure 24: Information Provision, Treatment CDU = 7

D.3 Post-Treatment Block (Fixed Order & Constant Across Treatments)

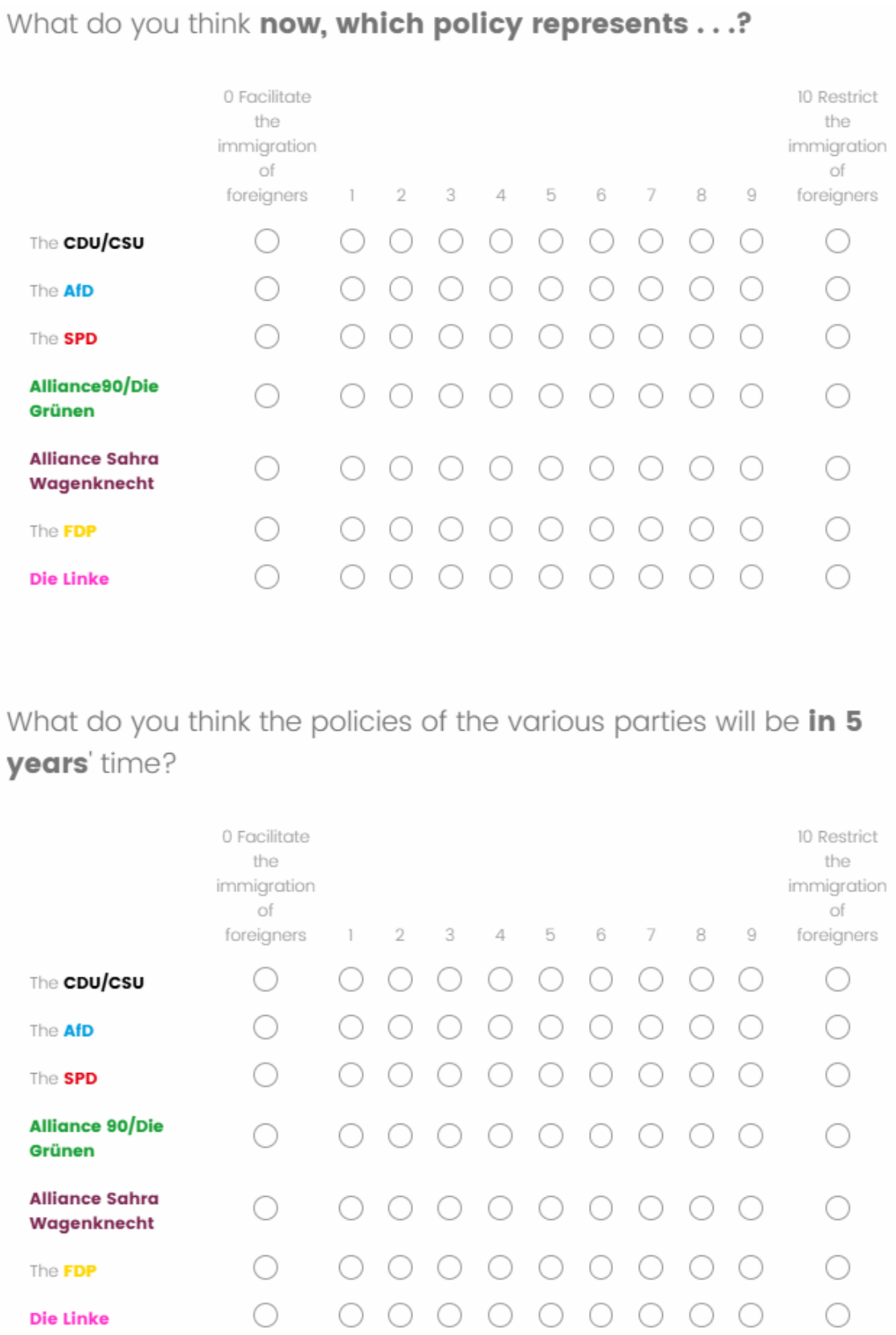


Figure 25: Post-Treatment Beliefs about Parties' Immigration Stance

D.4 Main Outcomes (Randomized Order & Constant Across Treatments)

The order of the following four blocks (Voting, Campaign Support, Newsletter Subscription, Feeling Thermometer) was randomized. The order within each of these blocks was held constant. The final main outcome (Donation) was always shown after these four main outcomes.

D.4.1 Voting

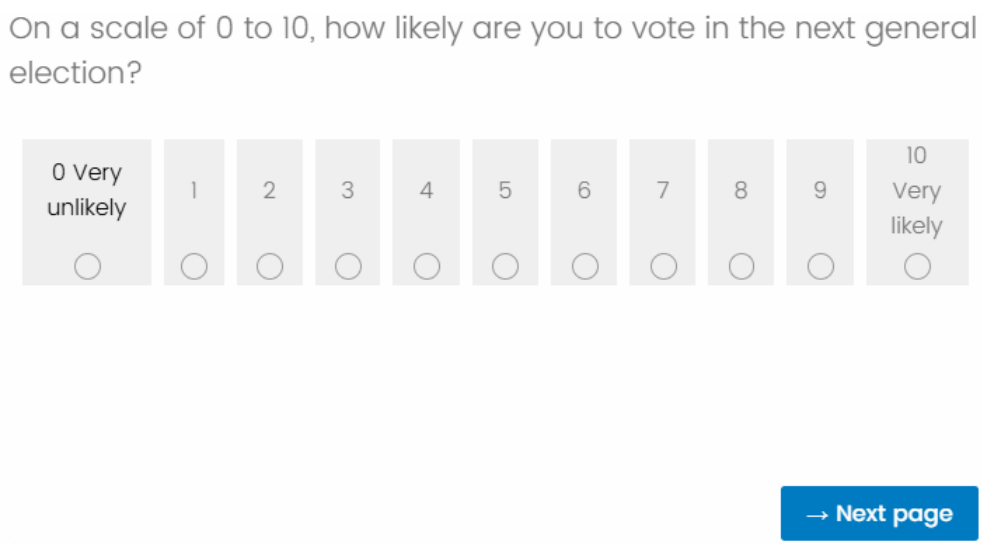


Figure 26: Turnout

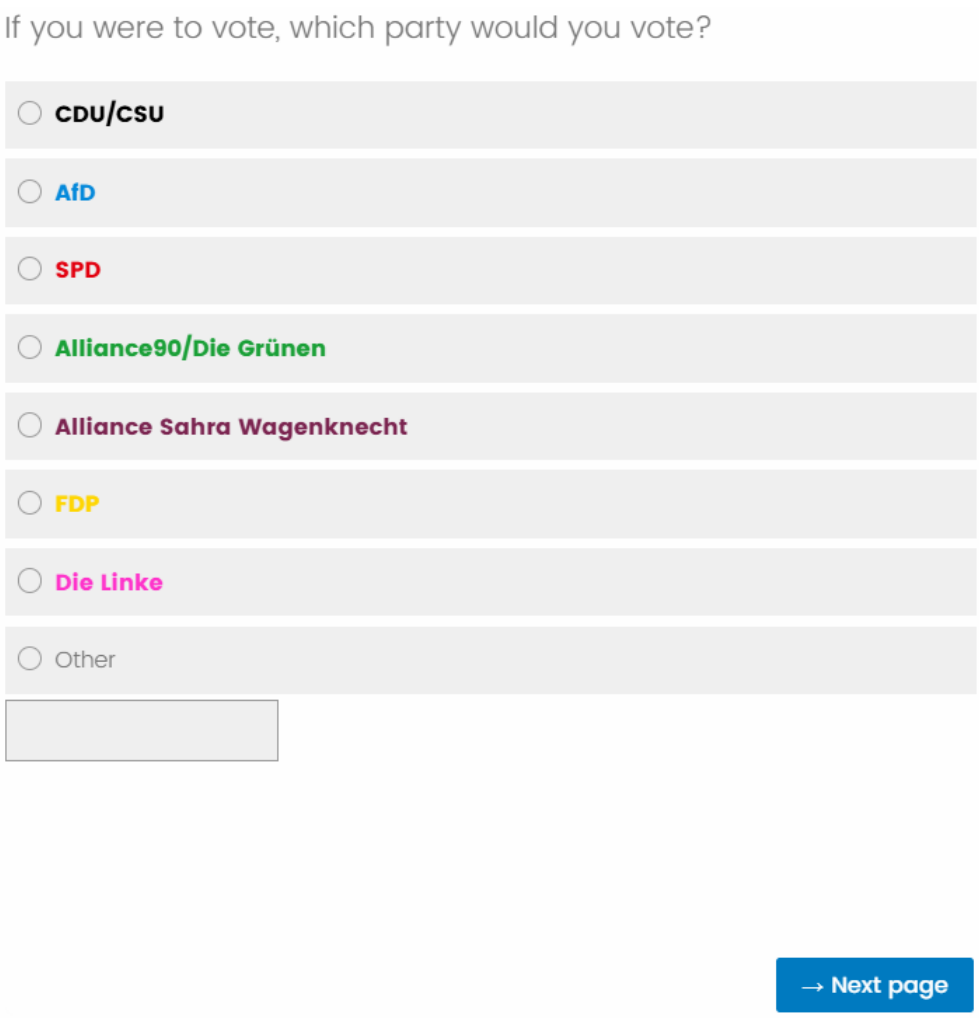


Figure 27: Voting Intention

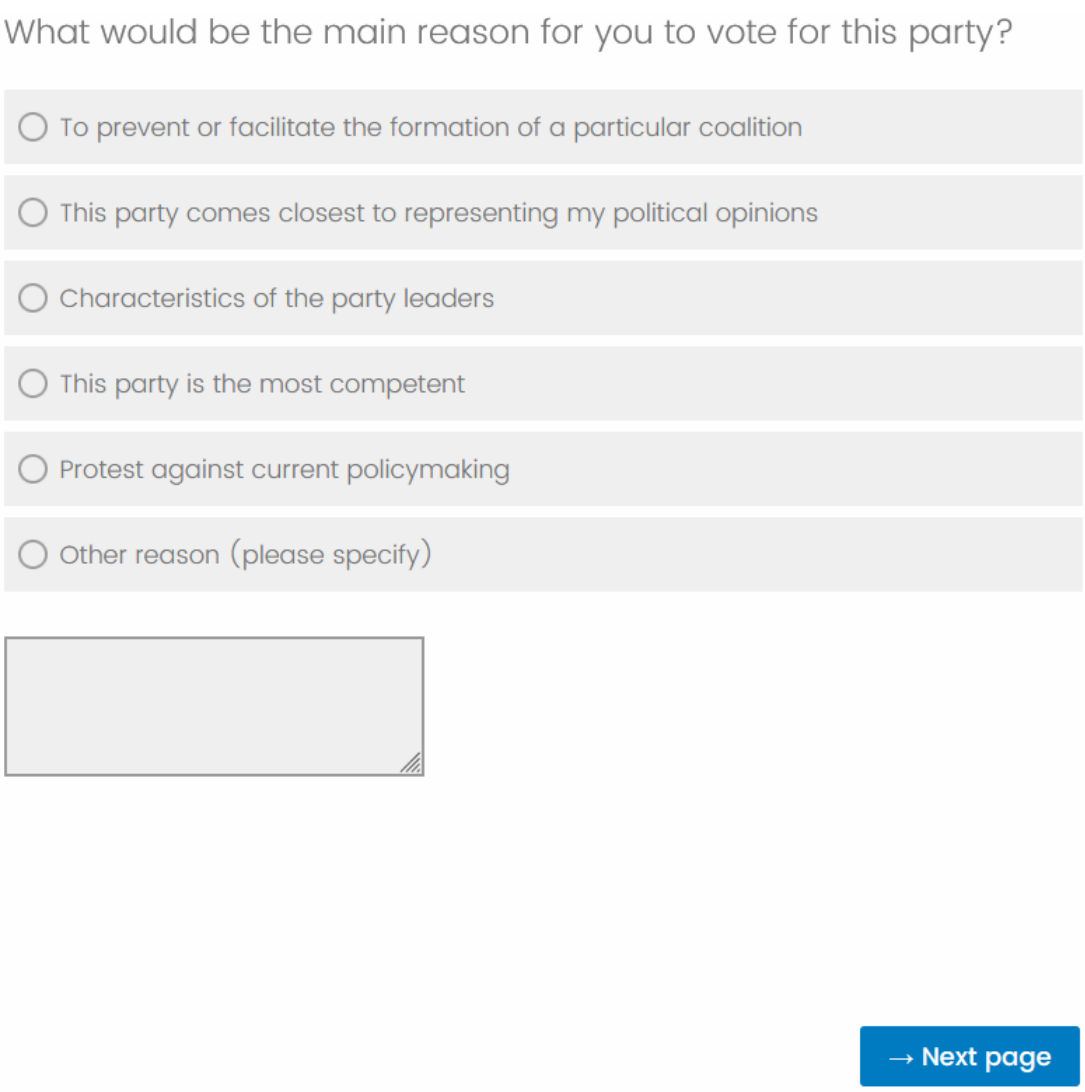


Figure 28: Voting Reason

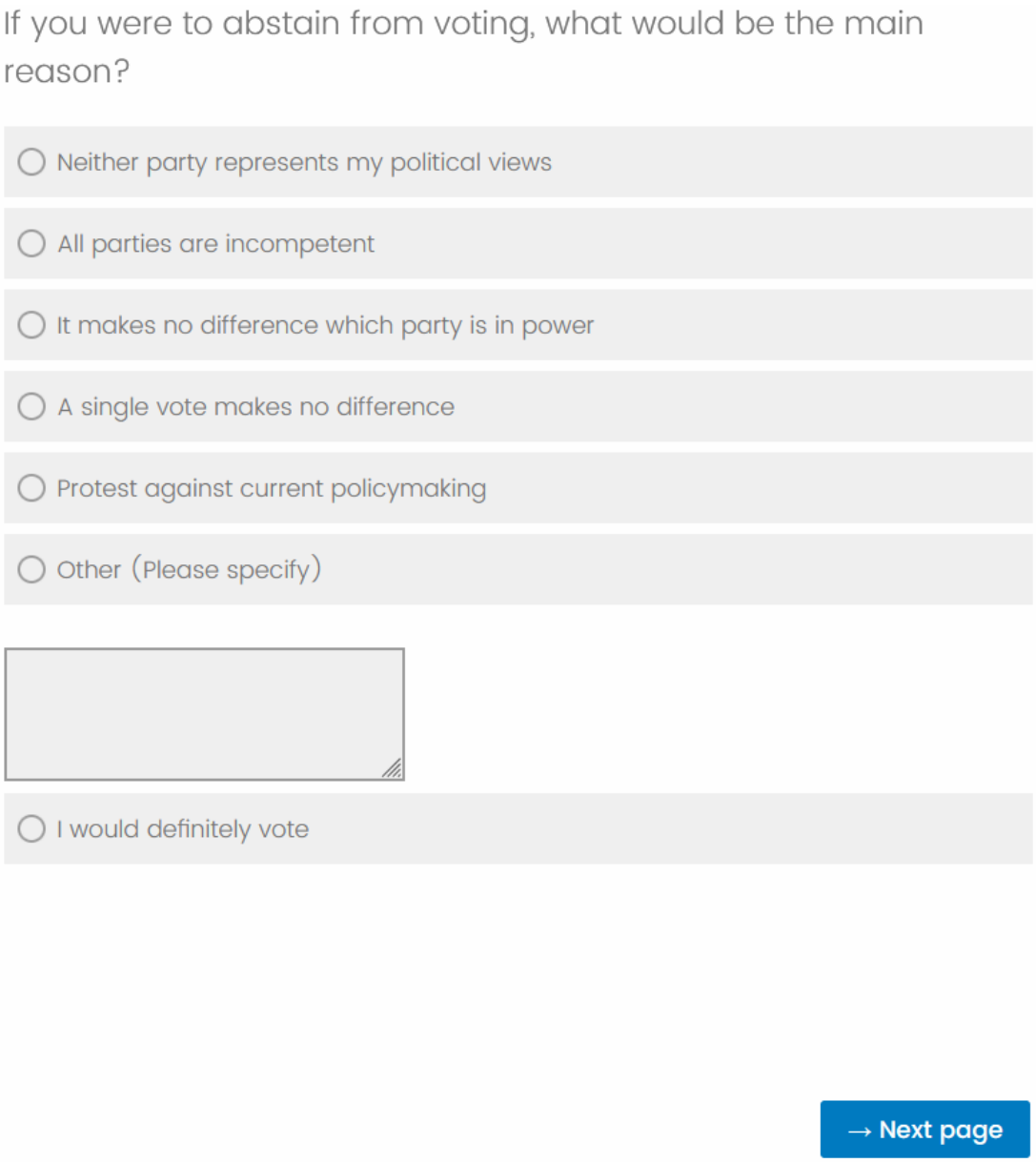


Figure 29: Turnout Reason

D.4.2 Campaign Support

There will be a general election soon. In the run-up to this election, we will conduct another study with 1,000 German voters, to whom we will show official election commercials of the German parties.

You can (possibly) decide how many of these 1,000 voters will see which campaign commercial. We will randomly select a participant in the current survey and distribute the election commercials to the voters as this participant decides. Assume that you are selected. For example, if you decide that 500 people will see the CDU/CSU commercial and 500 people will see the SPD commercial, then in our future study we will also show 500 people the CDU/CSU commercial and 500 people the SPD commercial.

How many of the 1,000 voters in the future study should see the following election commercials?

CDU/CSU election commercial	0
AfD election commercial	0
SPD election commercial	0
Alliance 90/Die Grünen election commercial	0
Alliance Sahra Wagenknecht election commercial	0
FDP election commercial	0
Die Linke election commercial	0
Total	0

Figure 30: Campaign Support

D.4.3 Newsletter Subscription

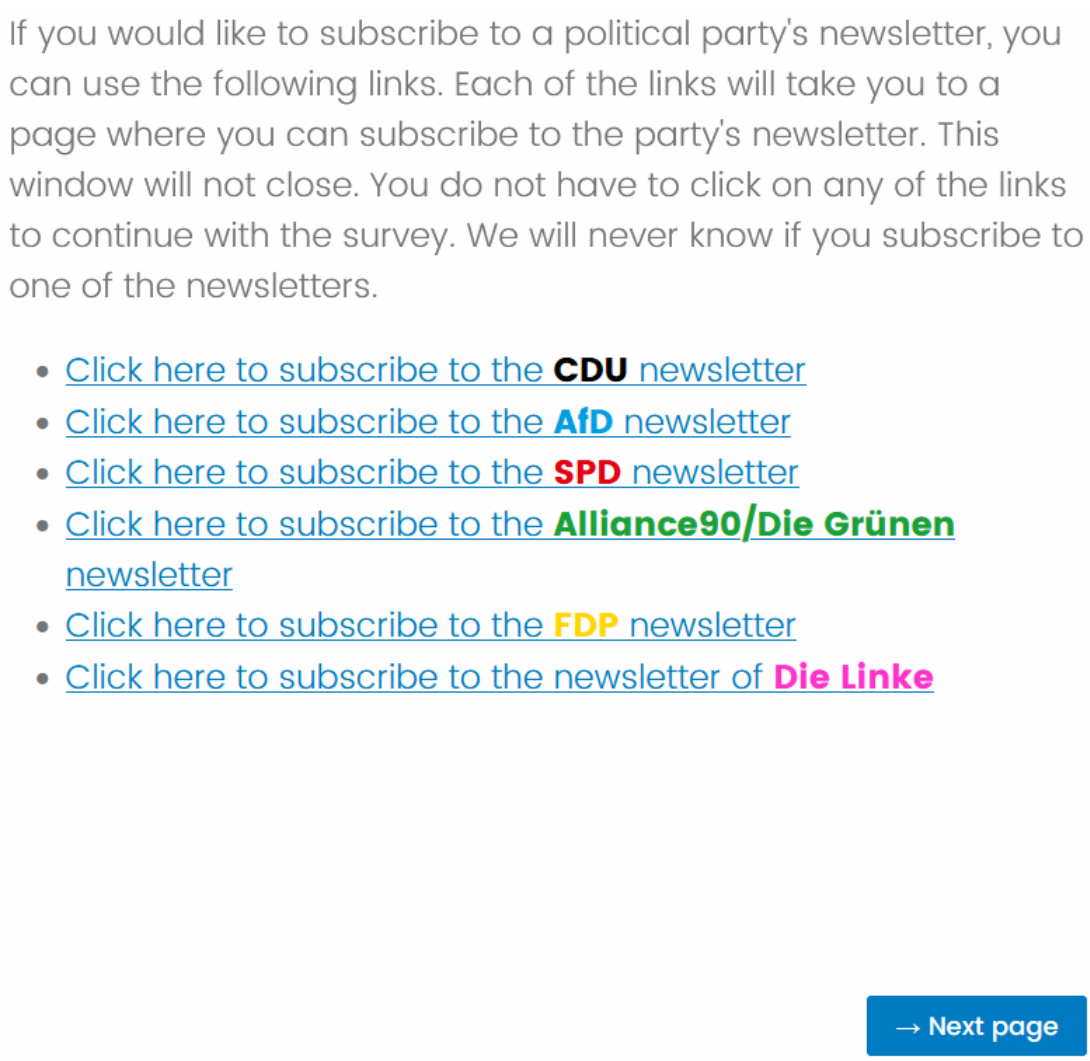


Figure 31: Newsletter Subscription

D.4.4 Feeling Thermometer

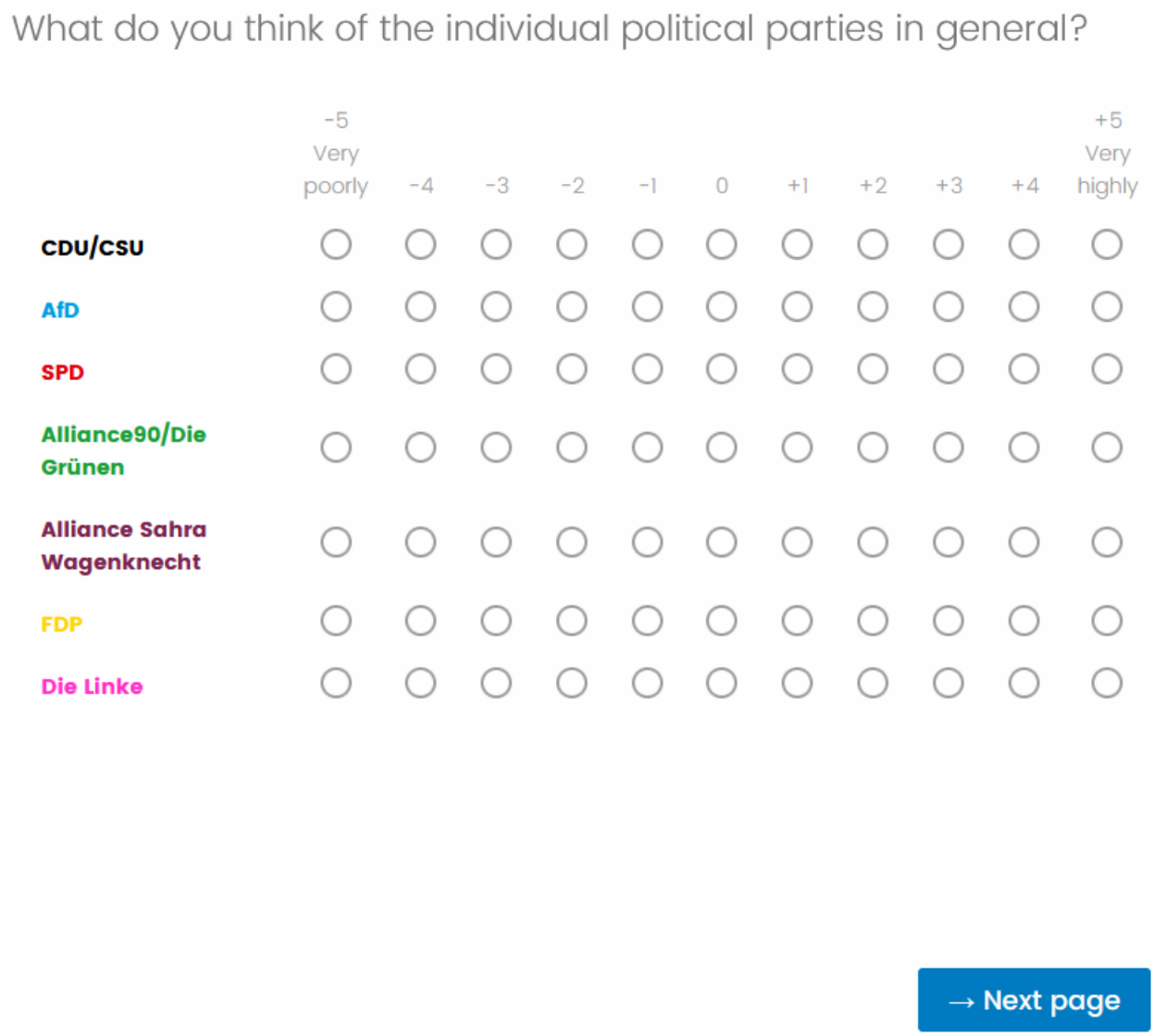


Figure 32: Attitude Thermometer

D.5 Donations (Randomized Order & Constant Across Treatments)

Donation items were organized as a sequence of four to five questions, using the staircase method (Falk et al., 2018). Figure 33 shows the first question participants were asked regarding the CDU. If they indicated that they were willing to allow the donation for a payment of €50 to them, we asked them whether they would also be willing to allow the donation for a lower amount. Similarly, if they did not allow the donation when offered €50, we asked whether they would be willing to do so for a higher amount. Hence, depending on their answer to the first question, the payments offered to them in the second question of the sequence were either €20 (if they allowed the donation) or €80 (if they did not allow the donation). Following the same logic, and depending on their response in this second question, amounts in the third question were either 5, 35, 65, or 95. Similarly, the fourth question included the values 0, 10, 30, 40, 60, 70, 90, and 105. Finally, we asked a fifth question offering a payment of €200 only to participants who were not willing to allow the donation for a payment of €105. This adaptive sequence was identical for the CDU and AfD and we randomized whether participants first answered questions about a donation to the AfD or to the CDU.

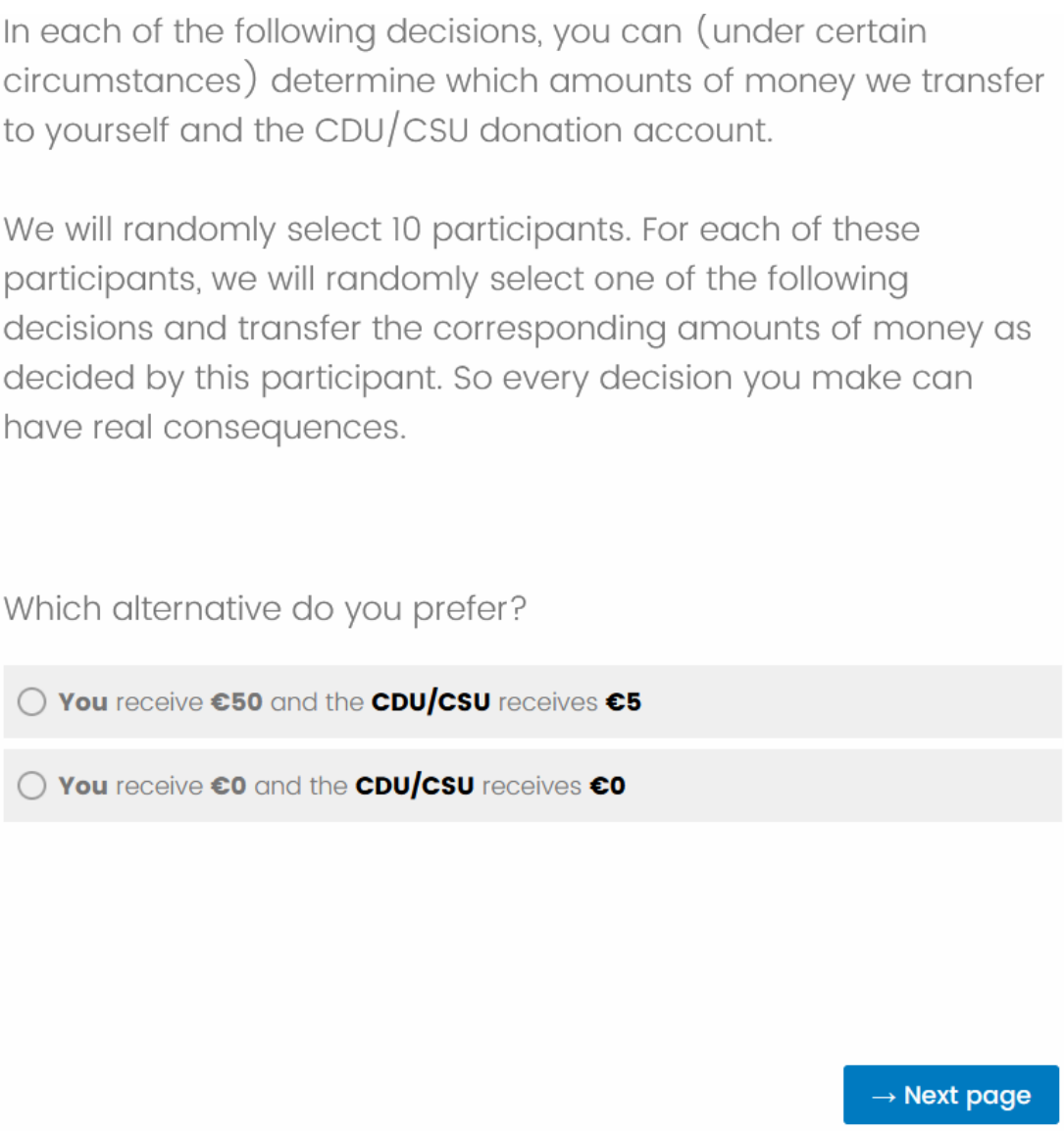


Figure 33: The First CDU Donation Item

D.6 Other Outcomes (Randomized Order & Constant Across Treatments)

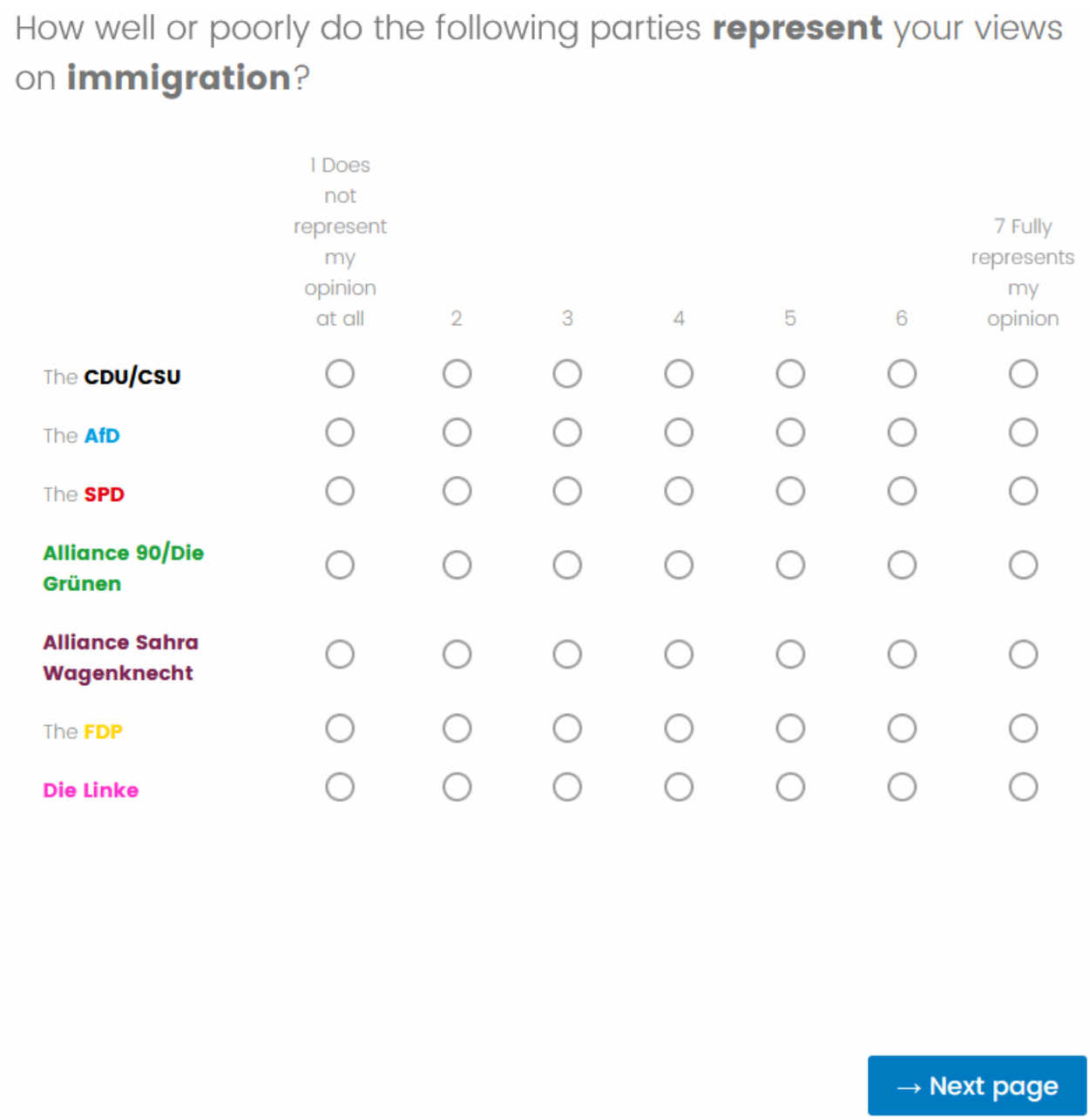


Figure 34: Perceived Representation

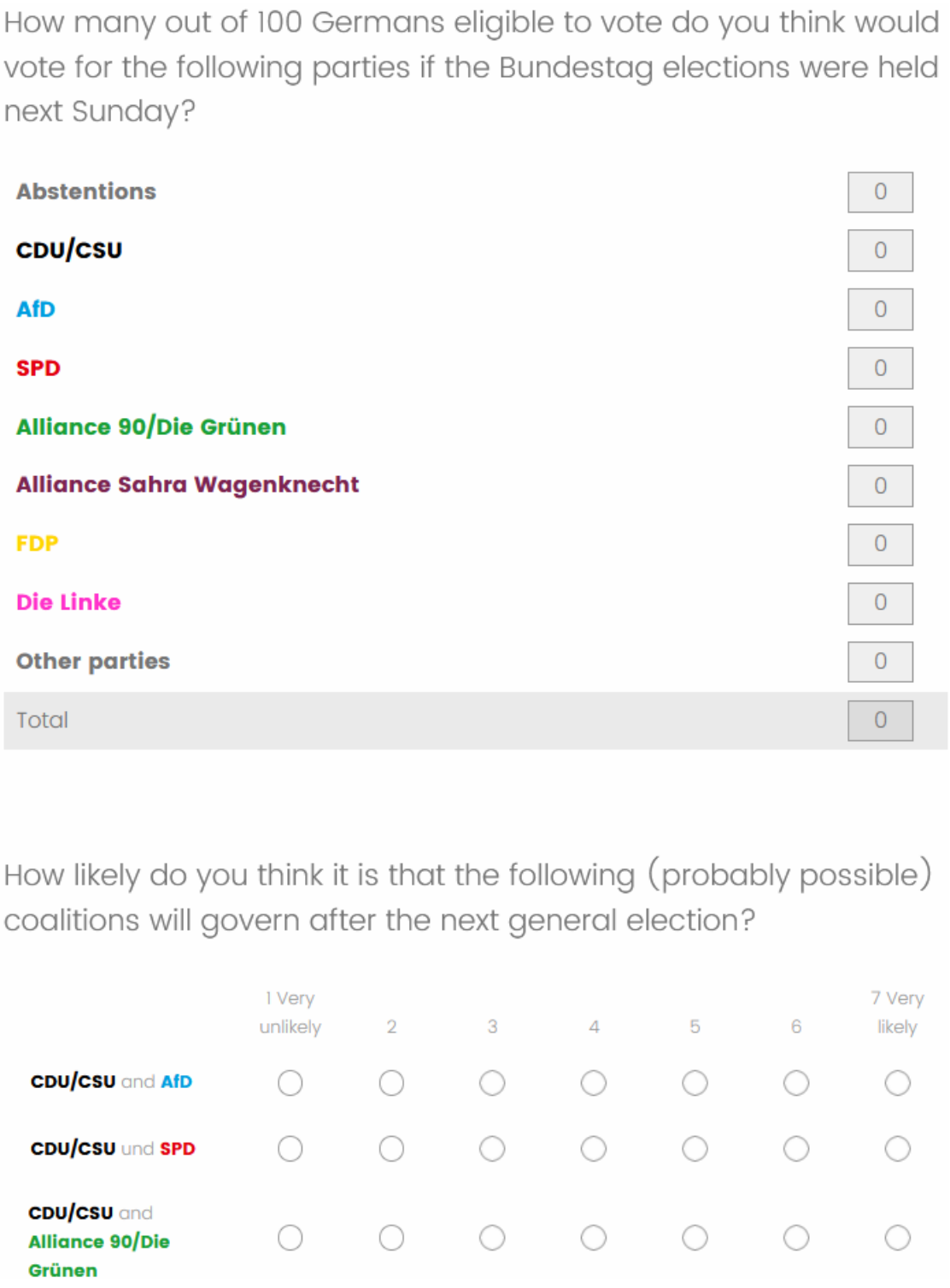


Figure 35: Expected Vote Shares

D.7 Final Block (Fixed Order & Constant Across Treatments)

Figure 36: Final Block, Screen 1

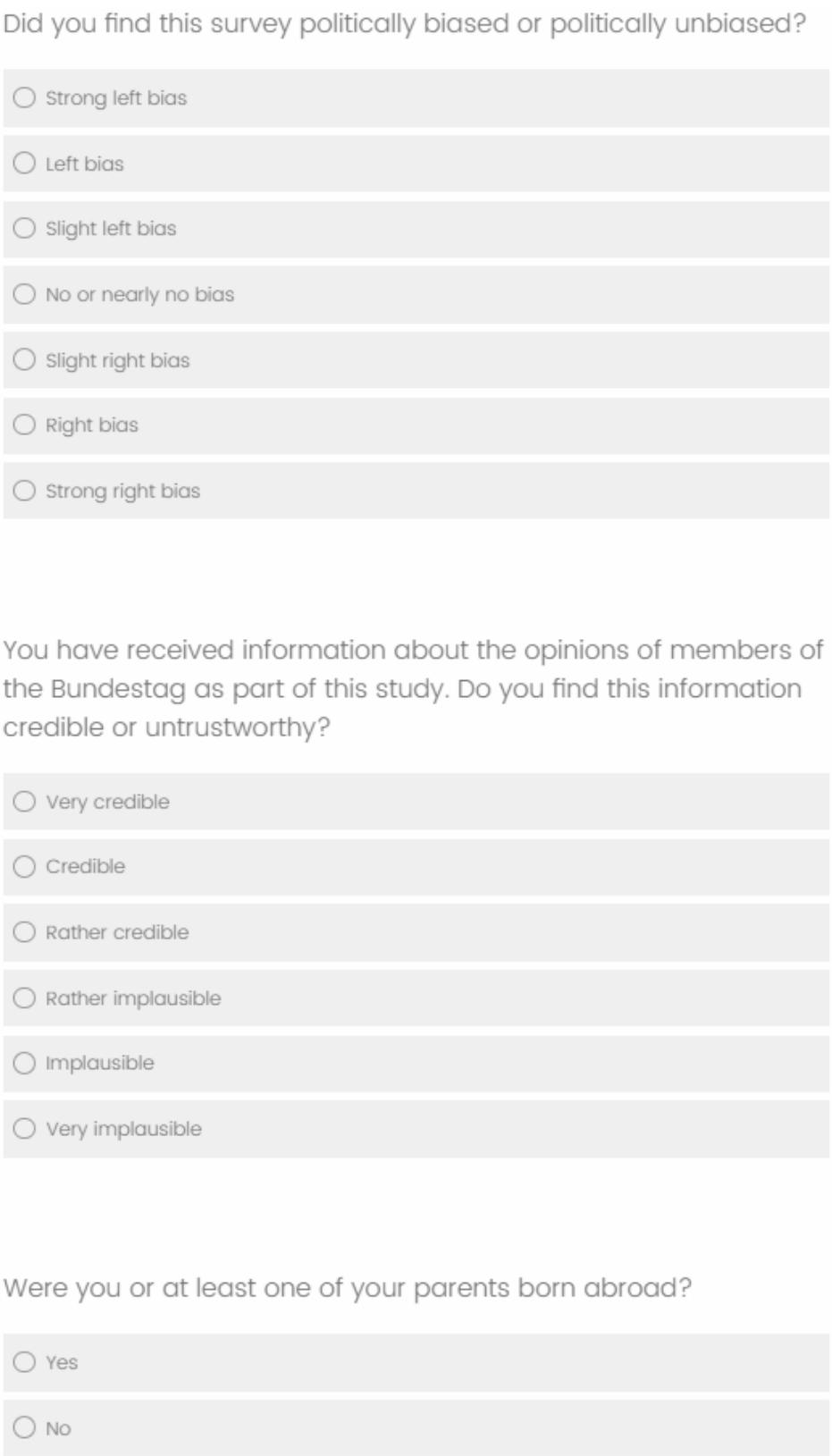


Figure 37: Final Block, Screen 2