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Who pays for climate policy? Distributional narratives and populist backlash

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Who Pays for Climate Policy? Distributional Narratives and Populist Backlash

Matilda Gettins and Lorenz Meister

September 10, 2025

Populist parties increasingly deploy narratives of social injustice to portray climate policy as elitist and unfair. This paper investigates how such narratives affect public attitudes toward populism and democratic institutions. We conduct a survey experiment with approximately 1,600 respondents in Germany, exposing participants to three common narratives about the distributional costs of climate policy. Our findings show that the narrative emphasizing disproportionate burdens on low-income households significantly increases climate-populist attitudes and reduces satisfaction with democracy. These effects are particularly pronounced among low-income, East German, and conservative voters. By contrast, the narrative that companies can circumvent the cost of climate action fosters climate populism among left-leaning individuals. The results suggest that the framing of how the costs of climate policy are distributed strongly shapes its political acceptance and vulnerability to populist mobilization.

Keywords: Climate policy, populism, narratives, distribution.

JEL codes: Q54, D72, Q58, H23.

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1. Introduction

Climate policy has become a central target of political opposition in many advanced democracies. A growing “green backlash” (Bosetti et al., 2025; Patterson, 2023) challenges net-zero commitments (Atkins, 2022) and environmental, social, and governance (ESG) regulations (Harmes, 2025), often couched in populist rhetoric that frames climate action as an imposition by out-of-touch elites on “ordinary people” (Denk and Siebert, 2025; Jacob et al., 2020). Such narratives apply a classic populist logic—pitting a morally pure people against a corrupt elite (Mudde, 2004)—to the domain of climate politics. When widely disseminated, they risk not only undermining support for climate policy but also fueling broader political discontent.

While climate change has long been polarizing, the role of distributional narratives in shaping climate populism remains underexplored. Existing research documents correlations between populist attitudes and skepticism toward climate policy (Huber et al., 2022; Huber, 2020; Meijers et al., 2023; Kulin et al., 2021; Kulin and Johansson Sevä, 2024), and highlights the salience of distributive concerns in climate opposition (Hoyle and Rhodes, 2025). Yet we know little about whether and how specific narratives about who bears the costs of climate action generate climate-populist attitudes and erode trust in democratic institutions. This gap is striking, given that distributional narratives have become central to public debates and often structure how citizens interpret complex policies. Addressing this gap is essential: if narratives of unfair cost distribution can mobilize populist resentment, climate policy design may inadvertently become a catalyst for broader democratic discontent.

This paper asks: How do different narratives about the distributional costs of climate policy affect climate populism and satisfaction with democracy?

We address this question with original survey evidence from Germany. Our study combines two online surveys with a total of 3,112 respondents recruited through Bilendi. The first wave elicited open-ended responses on perceived injustices of climate policy, along with measures of political attitudes, climate policy preferences, and demographics. These responses informed the design of a pre-registered survey experiment in the second wave (N = 1,600). Respondents were randomly assigned to a neutral control narrative and one of three narratives commonly invoked in climate debates: (i) climate policy disproportionately burdens low-income households; (ii) firms evade their share of costs; and (iii) German efforts are ineffective as long as large emitters such as China do not act. We then measured respondents’ general populist attitudes (using a validated

12-item scale), climate-populist attitudes (framing climate policy as an elitist topic at the expense of ordinary people), and satisfaction with democracy.

Two sets of results emerge. Descriptively, we show that both general populism and climate populism are negatively associated with perceived fairness of climate policy and with the perceived seriousness of climate change. These relationships are statistically robust, with effect sizes ranging between 6% and 12% of a standard deviation. By contrast, both forms of populism are positively related to dissatisfaction with democracy, with stronger effect sizes of 16% to 19%.

The experimental part shows that exposure to the income narrative—that climate policy comes largely at the cost of low-income earners—increases climate populism by 28% of a standard deviation and decreases satisfaction with democracy by 14% of a standard deviation. This effect is especially large among low-income earners, women, residents of former East Germany, and right-leaning individuals. The firms narrative—that firms can by large circumvent the cost of climate policy—increases climate populism by 27% of a standard deviation. This effect is especially pronounced among men, residents of former East Germany, and left-leaning individuals. The international narrative—that climate policy is ineffective as long as large countries, such as China, cause high emissions—increases climate populism to a lesser extent, by 14% of a standard deviation. This narrative does not display large heterogeneities across demographic groups; apart from the effect being larger for right-leaning individuals. Interestingly, among all three narratives, there are no significant effects on populist attitudes in general, pointing to a domain-specific impact.

Our paper sits at the intersection of political and economic science, contributing to both bodies of literature differently. First, our paper contributes to the economics literature on climate policy acceptance. A large body of work shows that distributive concerns and fairness perceptions strongly influence public support for climate policy (Maestre-Andrés et al., 2019; Andor et al., 2022; Huttarsch and Matthies, 2024). However, much of this research relies on stylized or technical conceptualizations of distributional dimensions, which may not fully capture the range of economic concerns voiced in public debates (Sommer et al., 2022). We extend this literature by employing real-world narratives about the economic cost distribution of climate policy, derived from open-ended survey responses. This approach provides a closer match to how citizens actually interpret distributive consequences, and thus reveals effects that standard economic framings may overlook.

Second, our work contributes to the emerging field of narrative economics. Recent

research emphasizes how stories and framings can shape economic perceptions and policy preferences (Shiller, 2017; Andre et al., 2023; Haaland et al., 2024; Barron and Fries, 2025). We show that narratives about the distributive dimensions of climate policy do not merely shift attitudes toward climate policy itself, but can spill over into broader political domains by reducing satisfaction with democracy. This demonstrates how narratives serve as a bridge between economic concerns and political legitimacy, highlighting their importance for understanding the political sustainability of major policy transformations.

Third, we contribute to political science research on populism and climate politics. Most existing studies focus on how general populist attitudes undermine support for climate policy, with a smaller niche exploring the role of narratives in this process (Dekeyser and Roose, 2023; Nordensvard and Ketola, 2022). We advance this work by introducing and operationalizing the concept of issue-specific populist attitudes—in our case, climate populism. We show that distributional narratives shape such domain-specific attitudes without altering general populist orientations. This conceptual innovation offers a new lens for studying the microfoundations of populism, with potential applications beyond climate politics, including domains such as migration or LGBTQ+ policy where populist framings are prevalent.

2. Theoretical Framework

Conceptualizing populism. Populism is an essentially contested concept, variously understood as an ideology, strategy, discourse, or political logic (Moffitt, 2016). We follow Mudde’s (2004, p. 543) canonical definition of populism as a thin-centered ideology that “considers society to be ultimately separated into two homogeneous and antagonistic groups, ‘the pure people’ versus ‘the corrupt elite,’ and which argues that politics should be an expression of the *volonté générale* of the people.” Consistent with survey-based approaches (Schulz et al., 2018), we operationalize populism as a set of individual-level attitudes characterized by anti-elitism, belief in the homogeneity of “the people,” and popular sovereignty. Building on this approach, we further introduce the concept of issue-specific populist attitudes, defined as populist beliefs articulated within a specific policy domain. In our case, climate populism entails seeing climate policy as imposed by an elite contrary to the will and interests of ordinary people (Denk and Siebert, 2025).

Populism and climate policy. A growing literature documents strong correlations between populist attitudes and skepticism toward climate action. Populist orientations are associated with climate change denial and reduced support for environmental protection (Huber, 2020). At the European level (Kulin et al., 2021) and in Germany (Sommer et al., 2022), right-wing populist attitudes predict opposition to climate mitigation policy. The focus on right-wing populism reflects the prominence of parties such as the Alternative für Deutschland (AfD), whose climate discourse has been analyzed through press releases, plenary speeches, party magazines, and manifestos (Sturm, 2020; Boecher et al., 2022; Küppers, 2024; Schwörer and Fernández-García, 2024). Yet such generalizations are context-dependent: right-wing populist opposition is often strategic (Delin, 2023), while left-wing populist critiques (Chazel and Dain, 2024) and forms of pro-environmental populism (Nordensvard and Ketola, 2022) complicate the picture. Taken together, the literature shows a robust empirical correlation between populism—particularly on the right—and climate skepticism, but leaves open how these attitudes are formed and why they vary across contexts.

Three broad approaches dominate to explain the populism-climate nexus:

- (a) *Economic explanations* highlight distributional consequences. Climate policy produces winners and losers: carbon pricing schemes impose visible costs, “green transformation losers” face declining jobs or living standards, and fears of downward mobility can foster populist resentment (Maestre-Andrés et al., 2019; Sommer et al., 2022; Lütkes et al., 2025). While compelling, this literature often leaves the mechanism vague: how do objective economic risks translate into subjective perceptions and political attitudes?
- (b) *Cultural political economy explanations* argue that structural features of climate policy make it susceptible to populist reframing. Opposition is situated within broader resistance to cosmopolitan liberalism (Lockwood, 2018), progress-reversing identitarian politics (Selk and Kemmerzell, 2022), or defense of an “imperial mode of living” (Eversberg, 2018; Haas, 2024). These approaches illuminate long-run cultural dynamics but struggle to explain the speed and heterogeneity of recent climate backlash (Bosetti et al., 2025).
- (c) *Discursive explanations* focus on how climate populism is constructed in public debate. In Germany, discourse analyses identify recurring economic framings—such as climate policy being conducted “at the expense of ordinary citizens” (Sturm, 2020;

Küppers, 2024). These accounts reveal the meanings of economic narratives, but rarely investigate their effects on individual attitudes, nor how such effects differ across demographic or political groups. Moreover, little is known about whether issue-specific attitudes (e.g. climate populism) spill over into broader orientations such as satisfaction with democracy (Pateman, 1970; Kiess and Schmidt, 2025).

Narratives as a missing link. These gaps motivate our focus on narratives. Narratives, understood as stories people tell to interpret complex realities (Andre et al., 2023), mediate the connection between material conditions, cultural frames, and individual beliefs. (Roos and Reccius, 2021) describe economic narratives as “sense-making stories” that spread socially and suggest courses of action. We build on this perspective by generating real-world narratives about the distributive dimensions of climate policy through open-ended survey questions, and then testing their causal effects in an experimental setting.

Importantly, we do not claim that narratives alone explain populist attitudes: their resonance depends on structural conditions and ideological predispositions. But by focusing on narratives, we provide a tractable way to analyze how distributive framings shape climate populism, and whether such effects extend to broader democratic attitudes.

Building on this framework, our empirical strategy proceeds in two steps. First, we elicit real-world narratives about the distributive consequences of climate policy through an open-ended national survey, ensuring that the framings we test reflect how citizens themselves articulate concerns. Second, we embed these narratives in a survey experiment to identify their causal effects on climate-populist attitudes, general populist orientations, and satisfaction with democracy. This design allows us to move beyond correlations in the existing literature and directly assess how distributional narratives shape both domain-specific and broader political attitudes.

3. Data

Data collection and sample. We conducted two waves of an online survey in Germany during 2024 and 2025. The first wave was designed to collect descriptive evidence, while the second wave implemented a survey experiment. Respondents were recruited through Bilendi’s online panel, and the questionnaire was programmed in Qualtrics. Appendix Table A2 provides an overview of the data collection process. To ensure data

quality, we excluded respondents who failed attention checks or bot-detection tests, provided duplicate IP addresses, or completed the survey in less than three minutes. After these exclusions, the final sample consists of 1,498 respondents in the first wave and 1,614 respondents in the second. The resulting sample is broadly representative of the German population, with quotas imposed on age, gender, education, income, and federal state. Appendix Table A4 and Table 1 report the composition of the first wave sample and the second-wave sample by treatment assignment. The questionnaires can be found in Appendix B and C.

Populism, climate populism, and satisfaction with democracy. We focus on three main outcomes. The first outcome, populist attitudes, are measured using a 12-item scale developed and tested in prior work (Akkerman et al., 2014; Schulz et al., 2018). The scale follows the canonical definition of populism by Mudde (2004) (see Section 2). The items on populist attitudes capture three dimensions: anti-elitism, anti-pluralism, and popular sovereignty. Responses are recorded on an 11-point Likert scale (0 = “strongly disagree” to 10 = “strongly agree”). We compute principal component scores (PCS) for the full battery and for each dimension (four items each), normalizing all measures to mean zero and standard deviation one. The survey never used the word “populism,” thereby reducing concerns about experimenter demand or social desirability bias. Appendix Table A1 provides the exact wording of all items and their assignment to sub-dimensions.

To capture populist attitudes in the context of climate policy, we developed a survey item that adapts Mudde’s canonical definition to this domain. Respondents rated their agreement on an 11-point Likert scale (0 = “strongly disagree” to 10 = “strongly agree”) with the statement: “Climate policy is largely a project of the elites that does not take ordinary people into account.” This statement embeds the core populist component—political competition between ordinary people and the elite—into the context of climate policy. The correlation between our measures of populism and climate populism is 0.50, it follows a linear relationship as depicted by Appendix Figure A1. The correlation suggests that climate populism is related to but distinct from general populism.

As a third outcome, we measure satisfaction with democracy, capturing respondents’ trust in democratic institutions. The question asks: “How satisfied are you with democracy as it exists in Germany? Please answer on a scale from 0 to 10, where 0 means ‘not at all satisfied’ and 10 means ‘very satisfied.’” The wording is adapted from the German Socio-Economic Panel (SOEP), enabling comparability with the country’s

TABLE 1. Sample composition by experimental treatment group in wave 2

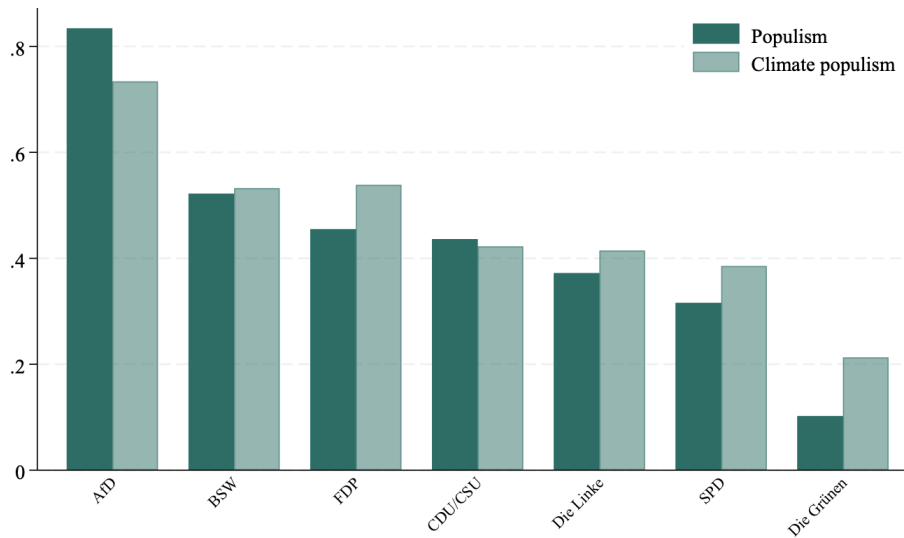
	Treatment group			
	(1) Control narrative	(2) Income narrative	(3) Firms narrative	(4) International narrative
Age	52.4 (13.7)	52.1 (14.4)	51.3 (14.9)	50.2 (14.9)
Gender				
Male	196 (48.6%)	212 (52.2%)	206 (51.8%)	217 (53.3%)
Female	207 (51.4%)	191 (47.0%)	190 (47.7%)	190 (46.7%)
Other/ prefer not to say	0 (0.0%)	3 (0.7%)	2 (0.6%)	0 (0.0%)
Vote federal election 2025				
SPD	62 (16.4%)	55 (14.2%)	59 (15.4%)	66 (17.1%)
CDU/CSU	96 (25.5%)	89 (23.0%)	99 (25.8%)	84 (21.8%)
Die Grünen	39 (10.3%)	32 (8.3%)	38 (9.9%)	28 (7.3%)
Die Linke	29 (7.7%)	31 (8.0%)	41 (10.7%)	33 (8.6%)
AfD	85 (22.5%)	95 (24.5%)	79 (20.6%)	97 (25.2%)
FDP	9 (2.4%)	14 (3.6%)	14 (3.7%)	10 (2.6%)
BSW	19 (5.0%)	16 (4.1%)	11 (2.9%)	21 (5.5%)
Prefer not to say	12 (3.2%)	21 (5.4%)	12 (3.1%)	13 (3.4%)
Did not vote	26 (6.9%)	34 (8.8%)	30 (7.8%)	33 (8.6%)
Income group				
€0 - €1,999	98 (24.4%)	103 (25.5%)	105 (26.4%)	104 (25.6%)
€2,000 - €2,999	100 (24.9%)	106 (26.2%)	106 (26.6%)	103 (25.4%)
€3,000 - €4,999	152 (37.8%)	162 (40.1%)	126 (31.7%)	147 (36.2%)
€5,000+	52 (12.9%)	33 (8.2%)	61 (15.3%)	52 (12.8%)
Education				
Primary	20 (5.0%)	20 (4.9%)	18 (4.5%)	19 (4.7%)
Secondary	306 (75.9%)	306 (75.6%)	304 (76.4%)	310 (76.2%)
Bachelor or equivalent	37 (9.2%)	39 (9.6%)	39 (9.8%)	38 (9.3%)
Master or equivalent	36 (8.9%)	37 (9.1%)	35 (8.8%)	36 (8.8%)
PhD or equivalent	4 (1.0%)	3 (0.7%)	2 (0.5%)	4 (1.0%)
Observations	403 (25.0%)	406 (25.2%)	398 (24.7%)	407 (25.2%)

Notes: The table reports the demographic composition of each treatment group in the survey experiment. For age, mean values and standard deviations are shown; for all other characteristics, absolute numbers are reported with percentage shares in brackets. Treatment groups consist of a control narrative (priming respondents on climate policy) and three treatment narratives: cost distribution across income groups (column 2), cost distribution between companies and consumers (column 3), and cost distribution at the international level (column 4). Randomization was stratified by gender and education. Source: Own survey, wave 2.

largest longitudinal household survey.

We validate both the general populism scale and the climate populism item by examining average levels across party preferences (Figure 1). Consistent with expectations, supporters of the two major German populist parties in the 2025 Federal Election—Alternative für Deutschland (AfD) and Bündnis Sarah Wagenknecht (BSW)—tend to exhibit the highest levels of populist and climate-populist attitudes.

FIGURE 1. Populism and climate populism, by party support



Notes: The figure plots attitudes toward populism (dark green) and climate populism (light green) across party supporters in June 2025. All measures are normalized to mean zero and standard deviation one. N = 1,343. Source: Own survey, wave 2.

Distributional narratives of climate policy. Understanding how individuals perceive the fairness of climate policy is central to studying climate populism. To capture these perceptions, we collected open-ended narratives through the following survey question: “What do you find particularly unfair about climate policy?”. These narratives provide qualitative insights into how citizens articulate perceived injustices in climate policy, which we link to demographic characteristics and attitudinal measures from the broader survey. Open-ended responses allow participants to express their reasoning in their own words, rather than being constrained by predefined categories, thereby reducing researcher priming and better reflecting everyday perceptions of fairness (Haaland et al., 2024).

The content of these narratives highlights prevalent distributive concerns. Frequently mentioned terms include “people,” “costs,” and “climate policy,” alongside references to “the rich,” “income,” “taxes,” “the people,” “responsibility,” “the poor,” and “the wealthy.” This vocabulary points to perceived conflict lines along socioeconomic status. Many respondents describe climate policy not only as an ecological issue but increasingly as a social one, often emphasizing feelings of being disadvantaged or unequally burdened.

Additional covariates. We also elicited respondents’ attitudes toward the perceived fairness of climate policy and the perceived seriousness of climate change. Moreover, we asked for respondents’ preference for prioritizing jobs versus environmental protection, and their willingness to adjust consumption habits (meat, air travel, and heating) to reduce emissions, both adapted from the SOEP. Lastly, the questionnaire includes a standard battery of demographic characteristics—age, gender, education, income group, self-reported voting behavior, and place of residence, adapted from the SOEP and the World Values Survey (WVS).

4. Descriptive evidence on populism and climate perceptions

To begin, we present descriptive regressions linking (climate) populist attitudes and satisfaction with democracy to perceptions of climate change and climate policy. Table 2 reports OLS coefficients, controlling for education, income group, gender, and age.

Populist and climate-populist attitudes are both negatively related to the perception that climate policy is fair and that climate change is serious. A one-unit increase in perceived fairness of climate policy (on a 0–10 scale) is associated with a reduction of 6.2% of a standard deviation in populist attitudes and 10.7% in climate-populist attitudes (columns 1 and 3). Likewise, perceiving climate change as one unit more serious is associated with decreases of 8.8% and 11.8% of a standard deviation, respectively (columns 2 and 4). All coefficients are significant at the 1% level.

The patterns are reversed for satisfaction with democracy: respondents who view climate policy as fair or climate change as serious also report higher democratic satisfaction. Here the effects are larger than for populism: 18.8% and 16.0% of a standard deviation, respectively, both significant at the 1% level (columns 5 and 6).

Going beyond perceptions, we next examine whether similar patterns emerge for populist attitudes and willingness to adopt sustainable consumption. Specifically, re-

TABLE 2. Populism and views on climate policy and climate change

	Populism		Climate populism		Satis. w/ democracy	
	(1)	(2)	(3)	(4)	(5)	(6)
Fairness of climate policy	-0.062*** (0.011)		-0.107*** (0.011)		0.188*** (0.009)	
Seriousness of climate change		-0.088*** (0.009)		-0.118*** (0.010)		0.160*** (0.008)
Individual controls	✓	✓	✓	✓	✓	✓
Constant	0.388** (0.160)	0.551*** (0.163)	0.807*** (0.149)	0.948*** (0.150)	-1.271*** (0.141)	-1.282*** (0.151)
Observations	1,598	1,598	1,597	1,597	1,600	1,600
R-squared	0.067	0.102	0.089	0.126	0.259	0.240

Notes: The table reports coefficients from regressions of populist attitudes, climate-populist attitudes, and satisfaction with democracy on perceived fairness of climate policy and perceived seriousness of climate change. All regressions control for education, income group, gender, and age. Robust standard errors are reported in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

spondents reported their willingness to reduce (i) meat consumption, (ii) air travel, and (iii) heating in order to lower CO2 emissions. We combine these items into a single index using principal component scores. Appendix Table A2 shows a clear negative association: populist attitudes are highest among those least willing to reduce carbon-intensive consumption, and they decline roughly linearly as willingness to adapt consumption increases.

Taken together, the descriptive evidence points to a robust negative relationship between populist attitudes and three outcomes: perceiving climate change as serious, judging climate policy as fair, and showing willingness to adjust consumption sustainably. These patterns are consistent with theoretical accounts that emphasize both distributive conflicts and discursive framings in explaining climate populism (Section 2). In particular, concerns about the distributive costs of climate policy may heighten perceptions of unfairness, while elite–people framings may encourage individuals to downplay the seriousness of climate change. To move beyond correlations, the next section tests these mechanisms directly by examining whether exposure to specific distributional narratives of climate policy causally affects climate populism, general populism, and satisfaction with democracy.

5. Experiment on populism and climate policy narratives

The descriptive analysis showed that populist attitudes correlate with skepticism toward climate policy and its fairness. To assess whether such attitudes can be causally shaped by distributional frames, we conducted a survey experiment.

Treatment narratives. Based on the narratives we previously collected through an open-ended question on fairness of climate policy, we selected and slightly adjusted three central narratives which could be frequently found among the answers. Each narrative is along a distinct distributive axis: (i) the distribution of costs across income groups, (ii) the distribution of costs between companies and consumers, and (iii) the distribution of costs at the international level. These three narratives capture salient fairness concerns that emerged from the qualitative responses and provide a structured basis for our experimental treatments. All of these narratives can be instrumented for populist rhetoric by stressing the clash between the interests of the people and the elite. Table 3 lists the exact wording of the four narratives used in the survey experiment. The narratives were selected to shift respondents’ perceptions of the distributive effects

of climate policy. We add a control narrative, mentioning the necessity of climate policy without addressing any distributional consequences to avoid asymmetric priming effects.

To present the treatments, respondents were told they would read a “typical answer” from an earlier survey. This framing makes the narratives appear as authentic citizen statements rather than researcher prompts. By embedding the texts in a neutral recall task, the design reduces experimenter demand effects and minimizes the impression that participants are being steered toward a particular view.

Using narratives instead of hard facts in the experiment offers several clear advantages. They create emotional impact, making messages more engaging and memorable. Because they don’t feel like persuasion, stories lower resistance and encourage openness. Unlike abstract statistics, they support intuitive thinking, and are easier to understand for people with varying levels of education or familiarity with data. They also imitate a rhetoric that is heavily used by politicians in public debates.

TABLE 3. Narratives used in the experiment

Control Narrative	Income Narrative	Firms Narrative	International Narrative
“Climate policy is important to limit global warming. Politics should act more decisively.”	“I find it unfair that climate protection mainly means making things more expensive through additional taxes and levies. This makes life particularly difficult for low- and middle-income earners.”	“I find it unfair that ordinary people often have to pay, while large companies hardly take responsibility.”	“Climate policy burdens the German economy, while other countries, such as China, take little responsibility.”

Notes: The table shows the four narratives that are randomly assigned to respondents in the survey experiment. The content is based on narratives that have been previously collected through an open-ended questions, with slight editorial adaptations for readability.

Experimental design. Assignment to the control and each of the treatment groups followed random stratification across gender and education. Table 1 shows that the composition of the four groups is highly similar along basic demographics and political support, supporting our claim that differences in the outcomes can be attributed to the treatment. Each group contains about 400 observations, leading to an overall sample of 1,600 observations in the experiment.

Following the treatment, all respondents indicate attitudes toward the three main outcomes: populism, climate populism, and satisfaction with democracy. To estimate

the effect of the three narratives on these outcomes, we estimate the following equation:¹

$$(1) \quad Y_i = \alpha + \beta_1 \mathbf{1}\{\text{Income}_i\} + \beta_2 \mathbf{1}\{\text{Firms}_i\} + \beta_3 \mathbf{1}\{\text{International}_i\} + \mathbf{X}'_i \gamma + \varepsilon_i.$$

where Y_i denotes the outcome of interest for individual i . The three coefficients of interest are denoted β_1 , β_2 , and β_3 . They capture the effect of exposure to the income narrative, the firms narrative, and the international narrative, respectively. We control for individual characteristics, including education, income group, gender, and age, denoted by the vector \mathbf{X}'_i . The term ε_i are potentially non-i.i.d. error terms. Therefore, we present robust standard errors throughout.

Results. Table 4, row 1, shows that exposure to the income narrative significantly increases climate-specific populist attitudes and decreases satisfaction with democracy. The estimated effect sizes are both statistically and economically meaningful, corresponding to 27.7% and -14.4% of a standard deviation, respectively. We find no significant effect on general populist attitudes.

The firms narrative (row 2) also increases climate populism, with an effect size of 27% of a standard deviation, but has no discernible impact on the other two outcomes. Similarly, the international narrative (row 3) raises climate populist attitudes by 13.8% of a standard deviation, statistically significant at the 10% level, but again leaves general populism and satisfaction with democracy unaffected.

The lack of any significant effect on general populist attitudes, despite consistent effects on climate-specific populism, aligns with the findings of Dekeyser and Roose (2023), who show that blame-oriented narratives tend to affect issue-specific domains without spilling over into broader populist sentiment. Our results suggest that narratives emphasizing the distributional costs of climate policy selectively shape populist attitudes within the climate domain, without generalizing to a wider populist worldview.

Heterogeneities. Which individuals are most responsive to the narratives? Figure 2 illustrates substantial heterogeneity in treatment effects on climate populism by demographic and political characteristics. The income narrative (Narrative 1) produces the strongest response among individuals in the lowest income group, as shown in the left panel of the income group coefficients. The effect is also notably larger among women, residents of former East Germany, and right-leaning respondents.

¹The experiment was pre-registered on AsPredicted (#230333).

TABLE 4. Main experimental results

	(1)	(2)	(3)
	Populism	Climate Populism	Democracy satisfaction
N1: Income narrative	0.024 (0.070)	0.277*** (0.072)	-0.144** (0.069)
N2: Firms narrative	0.072 (0.068)	0.270*** (0.069)	-0.049 (0.069)
N3: International narrative	0.084 (0.070)	0.138* (0.071)	-0.005 (0.070)
Constant	0.085 (0.160)	0.222 (0.157)	-0.488*** (0.169)
Individual controls	✓	✓	✓
Observations	1,600	1,599	1,602
R-squared	0.045	0.034	0.049

Notes: Experimental results estimated from Equation 1. Reported coefficients represent the effect of exposure to each narrative compared with the control group. All outcomes are normed to standard deviations of the control group. Allocation to treatment groups was randomized and stratified by education and gender. Individual controls include education, income group, gender, and age. Robust standard errors in parentheses. *** p<0.01, ** p<0.05, * p<0.1.

The firms narrative (Narrative 2) has the greatest effect among highly educated individuals, and—perhaps unexpectedly—among all income groups except the highest one. One possible interpretation is that higher-income individuals may identify more strongly with firms or hold financial interests in them, making them less receptive to firm-targeted blame. This narrative also shows larger effects for men and for left-leaning respondents, and those who live in former East Germany.

The international narrative (Narrative 3) yields the smallest and least consistent effects. With the exception of right-leaning individuals—where the estimated effect reaches approximately 25% of a standard deviation—none of the subgroup coefficients are statistically significant.

Overall, these results highlight that the effectiveness of climate narratives is strongly audience-dependent, with clear variation by income, gender, regional background, education, and political orientation.² Low-income earners and residents of former East Germany generally show the largest increase in climate populism. The effect on left- and right-leaning voter groups strongly depends on the content of the narrative. These findings support the view that distributive narratives matter not merely as discourse, but as mechanisms that translate material concerns into issue-specific populist attitudes. This underscores the importance of tailoring climate communication strategies to different segments of the population.

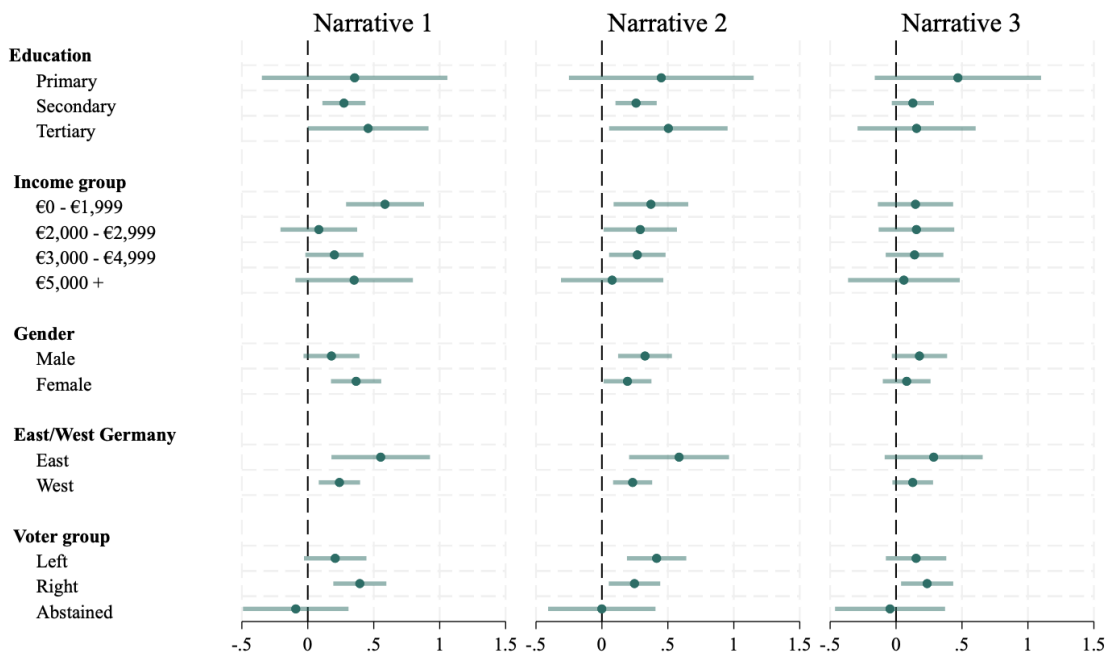
6. Conclusion

This paper examined how narratives about the distributive consequences of climate policy shape political attitudes. Using a two-wave survey of more than 3,000 respondents in Germany, including a pre-registered survey experiment, we tested three narratives commonly voiced in public debate: disproportionate burdens on low-income households, firms shirking responsibility, and the futility of national action without international cooperation.

Our findings yield three main insights. First, all three narratives measurably increase climate-populist attitudes, though with pronounced demographic and political heterogeneities. Effects are strongest among low-income individuals, those with lower education, and residents of former East Germany—groups often considered politically pivotal. This suggests that climate populism is particularly sensitive to how distribu-

²Heterogeneous effects on general populism and satisfaction for democracy can be found in Appendix Tables A3 and A4. They are omitted from the main body of the paper due to low variation in coefficient sizes.

FIGURE 2. Heterogeneous effects on climate populism across demographic groups



Notes: The figure displays estimated coefficients and 95% confidence intervals for the effect of experimental exposure to each of the three narratives relative to the control group. Coefficients are estimated separately for demographic subgroups using split-sample regressions of Equation 1. “Narrative 1,” “Narrative 2,” and “Narrative 3” correspond to the income, firms, and international narratives, respectively, as defined in Table 3. Voter groups refer to self-reported voting in the 2025 German Federal Election. Left includes SPD, Grüne, Linke, and BSW; right includes CDU/CSU, AfD, and FDP; and abstained refers to individuals who did not cast a vote, voted for a small party, which is not listed here, or did prefer not to answer the question.

tive fairness is communicated. Second, the income narrative not only boosts climate populism but also reduces satisfaction with democracy. This highlights a risk that climate policies perceived as disproportionately burdening lower-income households may erode democratic legitimacy. Effective redistribution, combined with transparent communication of who pays and who benefits, appears critical to avoid providing fertile ground for populist backlash. Third, we find no evidence that narratives spill over into general populist orientations, suggesting that climate populism operates as an issue-specific phenomenon. Nonetheless, further research is needed to assess whether sustained or repeated exposure—such as through media coverage or partisan campaigning—could generate broader spillover effects.

The study contributes to three strands of scholarship. For economics, it shows that fairness concerns are not only structured by objective distributive effects but also by narratives circulating in public debate. For narrative economics, it demonstrates that narratives can shape domain-specific political attitudes and even extend to satisfaction with democracy. For political science, it introduces the concept of issue-specific populist attitudes and shows how climate populism can be analytically and empirically distinguished from general populist orientations.

More broadly, our findings underscore that climate policy is vulnerable not only to its material distributional consequences but also to the stories told about them. If populist framings of unfairness gain traction, they may erode support for climate action and weaken democratic trust. Future research should examine how such narratives spread, why they resonate with certain groups, and whether counter-narratives can mitigate their impact. For policymakers, the implication is clear: designing sustainable climate policy requires not only economic efficiency but also close attention to distributive narratives that shape public perceptions and the democratic legitimacy of the green transition.

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Appendix A. Additional Figures and Tables

TABLE A1. Measures for Populist Attitudes

Measure	Item	Content
Climate populism	CP	Climate policy is largely a project of the elites that does not take ordinary people into account.
Satisfaction with democracy	DS	How satisfied are you with democracy as it exists in Germany? Please answer on a scale from 0 to 10, where 0 means 'not at all satisfied' and 10 means 'very satisfied'.
Anti-elitism	AE1	Members of Congress very quickly lose touch with ordinary people.
	AE2	The differences between ordinary people and the ruling elite are much greater than the difference between ordinary people.
	AE3	People like me have no influence on what the government does.
	AE4	Politicians talk too much and take too little action.
Sovereignty of the people	SP1	The people should have the final say on the most important political issues by voting on them directly in referendums.
	SP2	The people should be asked whenever important decisions are taken.
	SP3	The people, not the politicians, should make our most important policy decisions.
	SP4	The politicians in Congress need to follow the will of the people.
Anti-pluralism	AP1	Ordinary people all pull together.
	AP2	Ordinary people are of good and honest character.
	AP3	Ordinary people share the same values and interests.
	AP4	Although the Germans are very different from each other, when it comes down to it they all think the same.

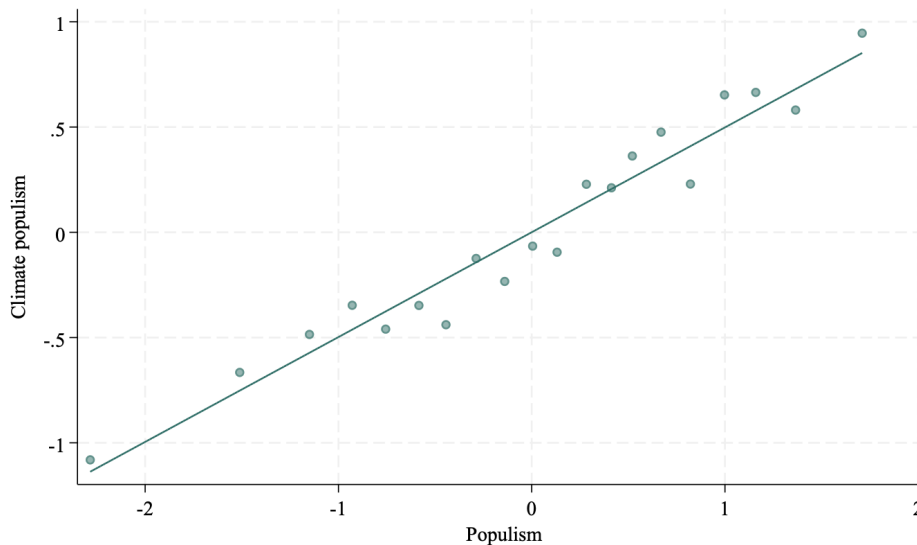
Notes: The table lists an item to measure climate populism, one to measure satisfaction with democracy, and 12 items used to measure populist attitudes, developed and validated by Akkerman et al. (2014) and Schulz et al. (2018), in line with the definition of populism provided by Mudde (2004). All of the items were employed in a German questionnaire; this table depicts the English translations. Respondents rate their agreement with each statement on a Likert scale from 0 to 10. A single measure for populist attitudes is derived using a Principal Component Score (PCS) based on all 12 items. Measures for the three subcomponents (Anti-elitism, Anti-pluralism, and Sovereignty of the People) are derived by calculating a separate PCS for each set of four corresponding items. All scores are normalized to mean 0 and standard deviation 1.

TABLE A2. Data collection overview

Collection	Fielded	Respondents	Questions	Main outcomes	Pre-registration
Descriptive survey	May/June 2024	1,498	See App B	Populist attitudes, attitudes towards climate friendly consumption and climate policy	–
Experiment	June 2025	1,614	See App C	Populist attitudes, attitudes towards climate populism, satisfaction with democracy	AsPredicted #230333

Notes: All respondents were recruited via Bilendi and are based in the Germany. The survey tool was developed in Qualtrics. The questionnaire of wave 2 can be found in Appendix C. Sample sizes correspond to the number of non-missing observations that meet the pre-specified exclusion criteria outlined in the study’s registration protocol. The experiment received IRB Approval #p3164FAi from GfW (Gesellschaft für experimentelle Wirtschaftsforschung).

FIGURE A1. Populism and climate populism



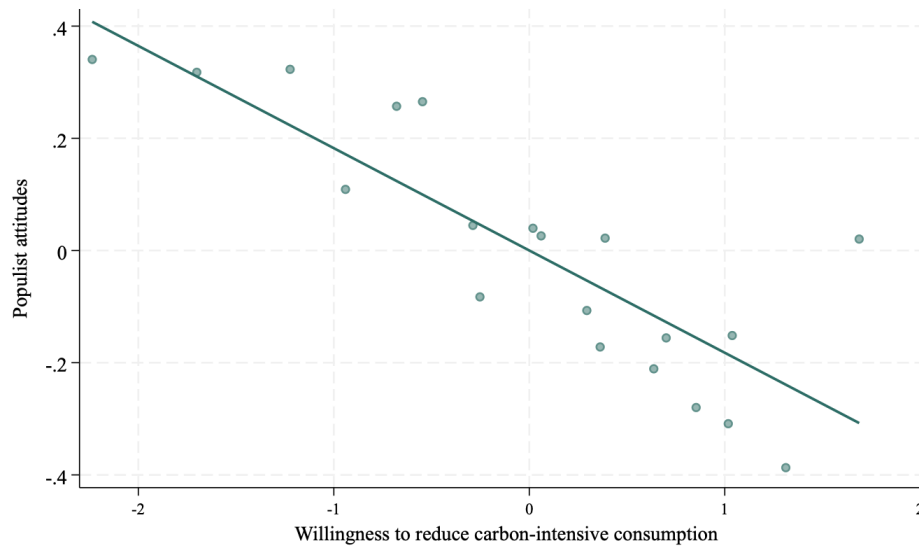
Notes: The figure displays a binned scatterplot of attitudes towards climate populism and attitudes towards populism in general. The first is measured by agreement to the statement that climate policy is an elitist project at the expense of ordinary people. The latter is measured as the first principal component score from twelve items, capturing anti-elitism, anti-pluralism, and sovereignty of the people. N=1,600. Source: Own survey, wave 1.

TABLE A4. Sample composition in wave 1

	Count/Share
Age (mean/s.d.)	47.8 (14.6)
Gender	
Male	702 (46.9%)
Female	795 (53.1%)
Vote federal election 2020	
SPD	297 (19.8%)
CDU/CSU	285 (19.0%)
Die Grünen	255 (17.0%)
Die Linke	68 (4.5%)
AfD	146 (9.7%)
FDP	137 (9.1%)
other party	110 (7.3%)
prefer not to say	76 (5.1%)
did not vote	124 (8.3%)
Income groups	
\$0 - \$14,999	158 (10.6%)
\$15,000 - \$24,999	162 (10.8%)
\$25,000 - \$39,999	258 (17.3%)
\$40,000 - \$54,999	244 (16.3%)
\$55,000 - \$74,999	261 (17.5%)
\$75,000 - \$99,999	207 (13.8%)
\$100,000 - \$149,999	145 (9.7%)
\$150,000 +	60 (4.0%)
Education	
Primary education	12 (0.8%)
Secondary education	796 (53.1%)
Bachelor or equivalent	299 (20.0%)
Master or equivalent	356 (23.8%)
PhD or equivalent	35 (2.3%)
Observations	1,498

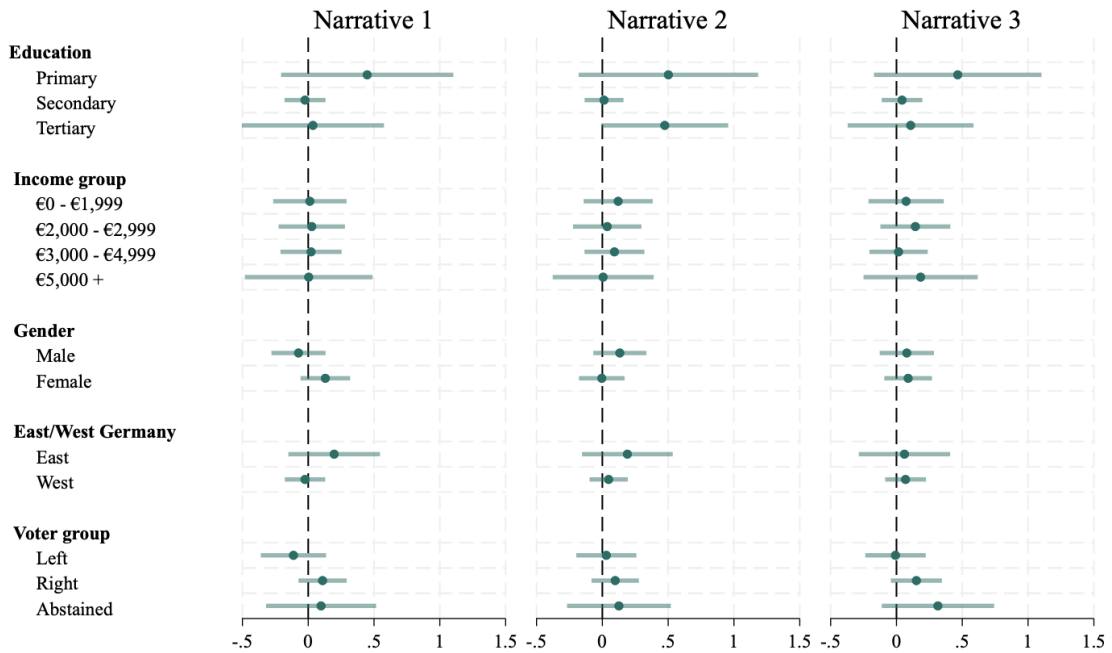
Notes: The table reports the demographic composition of survey wave 1. For age, mean values and standard deviations are shown; for all other characteristics, absolute numbers are reported with percentage shares in brackets. Source: Own survey, wave 1. The corresponding questionnaire can be found in Appendix B.

FIGURE A2. Populism and climate-friendly consumption



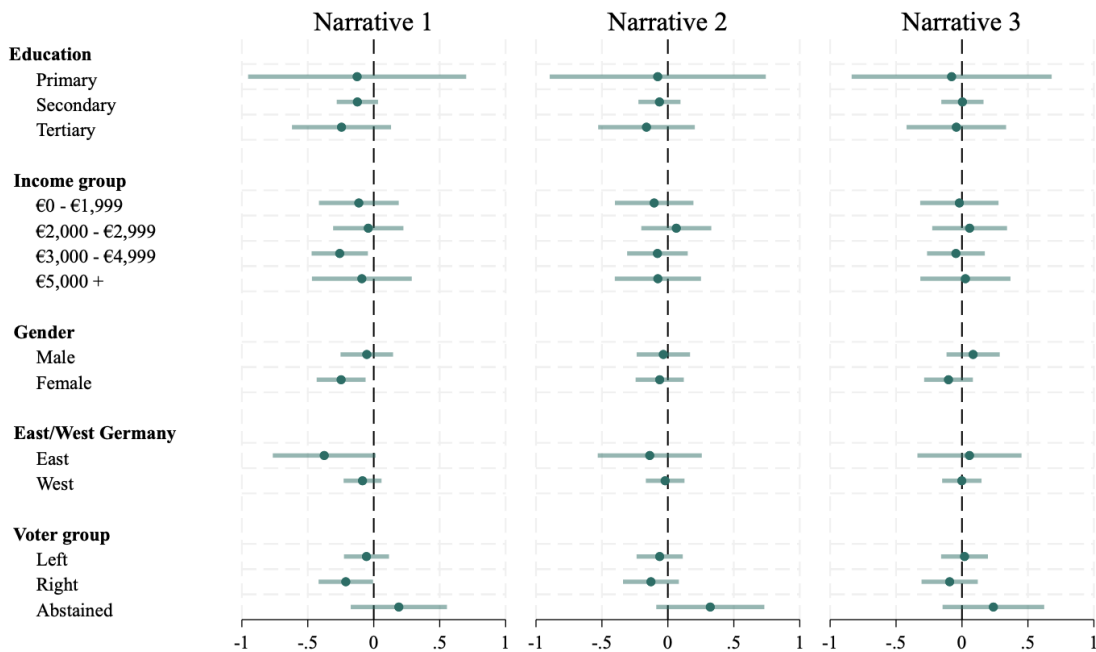
Notes: The figure displays a binned scatterplot of populist attitudes by willingness to reduce carbon-intensive consumption. The latter is measured as the first principal component score from three items: willingness to reduce meat consumption, flying, and heating. N=1,493. Source: Own survey, wave 1.

FIGURE A3. Heterogeneous effects on populism across demographic groups



Notes: The figure displays estimated coefficients and 95% confidence intervals for the effect of experimental exposure to each of the three narratives relative to the control group. Coefficients are estimated separately for demographic subgroups using split-sample regressions of Equation 1. “Narrative 1,” “Narrative 2,” and “Narrative 3” correspond to the income, firms, and economy narratives, respectively, as defined in Table 3. Voter groups refer to self-reported voting in the 2025 German Federal Election. Left includes SPD, Grüne, Linke, and BSW; right includes CDU/CSU, AfD, and FDP; and abstained refers to individuals who did not cast a vote, voted for a small party, which is not listed here, or did prefer not to answer the question.

FIGURE A4. Heterogeneous effects on satisfaction with democracy across demographic groups



Notes: The figure displays estimated coefficients and 95% confidence intervals for the effect of experimental exposure to each of the three narratives relative to the control group. Coefficients are estimated separately for demographic subgroups using split-sample regressions of Equation 1. “Narrative 1,” “Narrative 2,” and “Narrative 3” correspond to the income, firms, and economy narratives, respectively, as defined in Table 3. Voter groups refer to self-reported voting in the 2025 German Federal Election. Left includes SPD, Grüne, Linke, and BSW; right includes CDU/CSU, AfD, and FDP; and abstained refers to individuals who did not cast a vote, voted for a small party, which is not listed here, or did prefer not to answer the question.

Appendix B. Questionnaire W1 (translated from German)

Introduction

As part of a nonpartisan academic research project at Harvard University, this survey collects personal views. Participation is voluntary. Your responses are fully anonymous to protect your privacy. Please read the instructions carefully and follow them. Respondents who fail attention checks, rush through, or do not complete the survey are not compensated. The survey takes about 12–15 minutes. You may not learn everything during the survey; as part of this research design, the purpose or procedures may not be disclosed to you before completion. However, they will be explained to you after participation. For questions or concerns, please contact the research team at lmeister@fas.harvard.edu.

Consent

- (1) Do you agree to participate in this survey? (yes/no)
- (2) To confirm you are not a robot, please complete the reCAPTCHA below.

Demographics

- (3) What is your gender? (Male/female/other/prefer not to say)
- (4) In which year were you born?
- (5) Were you born in Germany? (yes/no)
 - If no: In which country were you born?
- (6) In which federal state do you currently live? (List of all 16 states)
- (7) What is your postal code? (5 digits, e.g., 10117 or 94305)
- (8) Which category best describes your occupation/industry? (Agriculture, livestock, or fisheries/ Manual worker / Skilled trade / Services / Office or clerical staff / Office or administrative / Medical or social services / Public safety / Education / Public sector / Homemaker / Self-employed or small business / Student or apprenticeship / Other)
- (9) Into which category did your total household income before taxes in 2023 fall? (€0–14,999 / €15,000–24,999 / €25,000–39,999 / €40,000–54,999 / €55,000–74,999 / €75,000–99,999 / €100,000–149,999 / €150,000+)
- (10) How many adults (18+) live in your household in total? (0, 1, 2, 3, 4, 5+)
- (11) How many children (under 18) live in your household in total? (0, 1, 2, 3, 4, 5+)
- (12) What is your highest educational attainment? (Primary education / Secondary education or vocational training / Bachelor or equivalent / Master or Diploma or equivalent / Doctorate/PhD)
- (13) What is your current employment status? (Employed full-time / Employed part-time / Self-employed or business owner / Unemployed and looking for work / Not in the labor force)
- (14) Which party did you vote for in the 2021 Federal Election?
 - SPD; CDU/CSU; The Greens; The Left; AfD; FDP; other; prefer not to say; did not vote

Attention Check

- (15) To show you have read the instructions, please select both “Strongly agree” and “Strongly disagree” for the following statement, regardless of your own opinion: “*Nowadays it is easy to find accurate and reliable information in the media.*” (Strongly agree / Somewhat agree / Neither / Somewhat disagree / Strongly disagree)

Narratives

Please take 1–2 minutes to reflect on someone you know and follow the instructions below. We encourage thoughtful, detailed answers.

- (16) Please share the story of a person from your surroundings (not yourself) who comes from a middle-class background and has improved their income position compared to their parents. Describe their career path and highlight the key factors and opportunities that contributed to their ascent. (3–4 sentences; open text)
- (17) Was this person’s ascent due more to luck or to effort? (0–10 scale; 0 = entirely luck, 10 = entirely effort)
- (18) How likely is it that others in your surroundings (friends, colleagues, family members, neighbors) could experience a similar story? (0–10 scale)
- (19) How close do you feel to the person you described? (Very close / Rather close / Neither / Rather distant / Very distant)
- (20) What is the gender of the person you described? (Male/female/other/prefer not to say)
- (21) Which description best fits the person’s ethnic identity? (White / Black / Hispanic / Asian / Indigenous / Don’t know / Other)

Perceptions of Social Mobility

- (22) Consider the entire population of Germany divided into five equal income groups, from the poorest (working class) to the richest (upper class). Of 100 children born into the poorest group in 1980, how many end up as adults in each of the five groups?
Upper class: _____ *Upper middle class:* _____ *Middle class:* _____ *Lower middle class:* _____ *Working class:* _____ *Total:* _____
- (23) Of 100 children born in 1980 into the *poorest* income group, how many obtained the *Abitur* (university entrance qualification)? (0–100)
- (24) Of 100 children born in 1980 into the *richest* income group, how many obtained the *Abitur*? (0–100)
- (25) What share of Germans born in 1980 do you think achieved *higher economic well-being than their parents*? (0–100%)

Satisfaction with Democracy

- (26) How satisfied are you with democracy as it exists in Germany? (0–10 scale)
- (27) Many things are desirable, but not all are essential features of democracy. For each item, indicate how essential it is as a feature of democracy (0–10).
- “Governments should tax the rich and subsidize the poor.”*
- “People receive government assistance when unemployed.”*
- “Women have the same rights as men.”*
- “The state equalizes people’s incomes.”*

Attitudes toward Populism

For each statement, please indicate your agreement on a 0–10 scale.

- (28) “Members of the Bundestag quickly lose touch with ordinary people.”
- (29) “The differences between the people and the ruling elite are much larger than differences within the people.”
- (30) “People like me have no influence on what the government does.”
- (31) “Politicians talk too much and do too little.”
- (32) “The people should have the final say on the most important political issues by voting on them directly in referendums.”
- (33) “On important decisions, the people should be asked.”
- (34) “The people, not the politicians, should make our most important political decisions.”
- (35) “Politicians in the Bundestag should follow the will of the people.”
- (36) “Ordinary people all pull together.”
- (37) “Ordinary people share a good and honest character.”
- (38) “Ordinary people share common values and interests.”
- (39) “Although Germans are very different, they ultimately think similarly when it matters.”

Environment vs. Growth

- (40) Which of the following comes closer to your view?
- Environmental and climate protection should take priority, even if it leads to slower economic growth and some job losses.
 - Economic growth and job creation should take priority, even if the environment suffers to some extent.
- (41) Experts suggest the following behaviors help reduce greenhouse gas emissions. How willing are you to adopt each? (1 = Not at all, 5 = Very much)

- Reduce air travel
- Reduce meat consumption
- Limit heating or cooling at home

Political Event Perceptions

(42) On a scale from 0 to 10, how much sympathy do you feel for those charged in relation to the planned storming of the Reichstag on August 29, 2020? (0–10)

Parental Background

The following questions ask about your parents.

(43) Was your mother born in Germany? (yes/no/don't know)

- If no: In which country was your mother born?

(44) What is your mother's highest educational attainment? (Primary education / Secondary education or vocational training / Bachelor or equivalent / Master or Diploma or equivalent / Doctorate/PhD)

(45) Which category best describes your mother's occupation/industry? (Agriculture, livestock, or fisheries/ Manual worker / Skilled trade / Services / Office or clerical staff / Office or administrative / Medical or social services / Public safety / Education / Public sector / Homemaker / Self-employed or small business / Student or apprenticeship / Other)

(46) Was your father born in Germany? (yes/no/don't know)

- If no: In which country was your father born?

(47) What is your father's highest educational attainment? (Primary education / Secondary education or vocational training / Bachelor or equivalent / Master or Diploma or equivalent / Doctorate/PhD)

(48) Which category best describes your father's occupation/industry? (Agriculture, livestock, or fisheries/ Manual worker / Skilled trade / Services / Office or clerical staff / Office or administrative / Medical or social services / Public safety / Education / Public sector / Homemaker / Self-employed or small business / Student or apprenticeship / Other)

Debriefing and End

(49) In your view, what was this survey about? (open text response)

(50) Thank you for participating. Please share any feedback or suggestions you may have. (open text response)

Content Explanation (Post-Survey)

This survey examined perceptions and narratives of social mobility and how they relate to attitudes toward populism.

Appendix C. Questionnaire W2 (translated from German)

Introduction

As part of an independent academic research project at Freie Universität Berlin, this survey collects personal views. Participation is voluntary and fully anonymous. Respondents who fail attention checks, rush through, or do not complete the survey are not compensated. The survey takes approximately 7 minutes.

Consent

Do you agree to participate in this survey? (yes/no)

Demographics

- (1) What is your gender? (Male/female/other/prefer not to say)
- (2) In which year were you born?
- (3) Were you born in Germany? (yes/no)
 - If no: In which country were you born?
- (4) In which federal state do you currently live? (List of all 16 states)
- (5) Monthly household net income: (€0–1,999/ €2,000–2,999/ €3,000–4,999/ €5,000+)
- (6) Highest educational attainment: (Primary education/ Secondary education or vocational training/ Bachelor or equivalent/ Master/Diploma or equivalent/ Doctorate/PhD)
- (7) Which party did you vote for in the 2025 Federal Election? (SPD, CDU/CSU, Greens, Left, AfD, FDP, BSW, other, did not vote, prefer not to answer)
- (8) How often did you feel angry last week? (Never, Rarely, Frequently, Very frequently, No answer)
- (9) How serious do you think the problem of climate change currently is? (0 = Not serious at all ... 10 = Very serious)

Attention Check

- (10) To show you read the instructions, please select both “Strongly agree” and “Strongly disagree” for the following statement, regardless of your opinion:

“Transparency is an important component of democracy.”

Mediators

- (11) How much do you trust science? (0–10 scale)
- (12) How much do you trust the media? (0–10 scale)
- (13) How fair do you consider climate policy? (0–10 scale)

Experimental Treatments: Narratives

Before presenting the statement, participants received the following instruction:

“In a previous survey, participants were asked about their opinion on climate policy. Please take a moment to read a typical answer. It is important that you understand and remember the text, as you will be asked questions about it later.”

Respondents were randomly shown one of the following statements:

- Income distribution: “It is unfair that climate policy increases costs through additional taxes and levies, making life harder especially for low- and middle-income earners.”
- Companies vs. consumers: “It is unfair that ordinary people often pay, while large companies bear little responsibility.”
- International distribution: “Climate policy burdens the German economy, while other countries such as China take little responsibility.”
- Neutral control: “Climate policy is important to limit global warming. Policymakers should act more decisively.”

Manipulation Check

(14) Which topic was addressed in the statement you just read? (Please select one option)

- Importance of climate policy
- High costs of climate policy for low-income people
- Large companies should bear a higher share of climate policy costs
- Costs of climate policy for the German economy
- Other:

Outcome Measures

(15) Satisfaction with democracy: “How satisfied are you with democracy as it exists in Germany?” (0 = Not at all satisfied . . . 10 = Very satisfied)

(16) Climate populism item: “Climate policy is largely a project of the elites that does not take ordinary people into account.” (0–10 scale)

(17) Populism battery: Agreement with 12 statements on anti-elitism, popular sovereignty, and anti-pluralism. Examples:

- “Members of parliament quickly lose touch with ordinary people.”
- “The people, not politicians, should make the most important political decisions.”
- “Ordinary people share common values and interests.”

(Responses recorded on a 0–10 scale; full list in Appendix Table A1)

Open-Ended Question

(18) “What do you find particularly unfair about climate policy?” (open text response)

Debriefing and End

(19) “In your view, what was this survey about?” (open text response)

(20) Feedback field for general comments.

Content Explanation (Post-Survey)

The survey studied narratives of climate policy and their relationship with populist attitudes.