Supplementary materials to the manuscript:

What Shapes Public Acceptance of Climate Change Mitigation Policies?
The Role of Social Norms and Elite Cues

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1. Sample distribution of socio-demographic variables

Relative to US census figures, our sample slightly over-represents individuals between 30 and 69, and slightly under-represents individuals in the segments between 18 and 29 and over 70, but the differences are overall quite small. Our sample contains 44.7% males and under-represents the West, while the other three census regions are slightly over-represented. Income distributions are overall well matched, but our sample contains a lower share of high-income individuals. In terms of party identification, a comparison with the US population is not straightforward, but the distribution in our sample (roughly one third Democrats, Independents and Republicans, respectively) matches the numbers of recent Pew surveys, which can serve as a benchmark.

Table S1: Sample distribution of socio-demographic variables.

Variable	sample	US population (only pop. over 18)	Variable	sample	US population (only pop. over 18)
Age			**Annual Family Income**		
18-29	18.3 %	21.3 %	Less than $20,000	14.7 %	16 %
30-39	19.0 %	17.0 %	$20,000 - $39,999	20.2 %	19 %
40-49	16.3 %	16.5 %	$40,000 - $59,999	17.0 %	16 %
50-59	19.3 %	17.9 %	$60,000 - $74,999	13.4 %	9 %
60-69	17.0 %	14.6 %	$75,000 - $99,999	10.1 %	12 %
70+	10.2 %	12.7 %	$100,000 - $149,999	15.3 %	14 %
Gender			More than $150,000	8.6 %	14 %
♂	44.7 %	49 %	(Don´t know/Prefer not	0.6 %	
♀	55.3 %	51 %	to say)		
Region					
Northeast	18.8 %	17.3 %	**Party Affiliation**		
Midwest	22.8 %	20.9 %	Democrat	35.8 %	33 %
South	39.5 %	38.0 %	Independent	32.6 %	37 %
West	18.9 %	23.8 %	Republican	31.5 %	26 %

Notes: Information on socio-demographic characteristics of the US population was obtained from the U.S. Census Bureau (for age and sex composition (2016) see https://www.census.gov/data/tables/2016/demo/age-and-sex/2016-age-sex-composition.html; for regions (2016) see https://www.census.gov/popclock/data_tables.php?component=growth, for income (2017) see https://www2.census.gov/programs-surveys/cps/tables/hinc-06/2017/hinc06.xls). Information on party affiliation is based on Pew Research Center surveys conducted in 2017 (http://www.people-press.org/wp-content/uploads/sites/4/2018/03/03-20-18-Party-Identification.pdf). The total percentage for Pew data does not add up to 100 as the remaining share belongs to the category "other."

2. Details on the study procedure

To collect the data, we contracted with the survey company Lightspeed, which was responsible for fielding the survey. Respondents were incentivized based on Lightspeed's standards.[1] Median completion time was 19 minutes and 43 seconds. To ensure high-quality data, several respondents were excluded based on a number of criteria. First, 560 inattentive respondents did not pass an attention check implemented after ca. 35 percent of the survey and were immediately excluded. Second, 34 speedsters with low completion time (< 40 percent of median completion time) were excluded. Also excluded were 111 respondents who gave no consent and 17 respondents who did not match our restrictions in terms of age (minimum 18 years). The data of all these 722 individuals never show up in our analyses, as they are not included in our sample of 1,520 American residents.

After obtaining respondents' consent to participate, the survey measured relevant covariates, such as demographics, respondents' mobility and environmental behavior, energy-related knowledge, and climate change perceptions (see Figure 1 in the paper). Next, respondents participated in the two choice experiments (one on each policy: phase-out of fossil fuel cars and scale-up of CCS), after receiving some information on the policies and their attributes. The order of the two experiments was randomized across respondents. Within each choice experiment, respondents were randomly assigned to either a control or one of two treatment conditions, the latter of which included a short text with information about what other people in their state think about the discussed policies for decarbonization.[2] All the information provided in the experimental manipulations was sufficiently vague to be factually correct for all American states. Assignment to norm manipulations was completely randomized in the first experiment (independent of policy context), but conditional on prior assignment in the second experiment (hence the asterisk in Figure 1). Therefore, respondents assigned to the control group in the first experiment were automatically assigned to the control group also in the second experiment, while respondents assigned to a treatment group in the first experiment were randomly assigned to one of the two treatment groups in the second experiment. The reason is that we wanted to avoid the outcomes of the second experiment to be affected by the manipulation of social norms in the first experiment, while at the same time retaining equally large experimental groups. After the two experiments, respondents received questions on attitudes toward government, partisan orientations, and attitudes toward elite actors. They finally read a short debriefing text.

[1] Respondents recruited by lightspeed receive „LifePoints" (lightspeed's internal currency) for their participation in surveys. For our study, respondents received 100 LifePoints. Respondents can pay out their LifePoints via PayPal, exchange them for vouchers (e.g., amazon), or donate the money to UNICEF.

[2] Technically, information about social norms could have also been part of the choice experiment, representing an additional dimension. However, while all other dimensions can plausibly vary, descriptive social norms with respect to decarbonization are not likely to vary from one policy proposal to another. Randomly varying information about social norms within and across choice tasks would hence likely not have been perceived as credible by respondents.

3. Design of the choice experiments

Table S2: Policy attributes and values for the fossil fuel cars phase-out and CCS experiments.

Policy attributes	**Experiment on phase-out of fossil fuel cars: attribute levels**	**Experiment on scale-up of CCS: attribute levels**
Policy endorsement by	Democratic Party	Democratic Party
	Republican Party	Republican Party
	Greenpeace	Greenpeace
	U.S. Alliance of Automobile Manufacturers	Carbon Capture Coalition
Beginning of policy implementation	2020	2020
	2030	2030
	2040	2040
	2050	2050
Policy instrument	Ban on new fossil fuel car sales	Ban on the construction of new fossil fuel power plants without CCS in your state
	Government subsidies for low-emission transportation alternatives	Government subsidies for CCS in your state
	Increase in fossil fuel taxes	Increase in taxes on fossil fuel power generation without CCS in your state
Policy costs (per household, per month)	$2	$4
	$6	$9
	$10	$14
	$14	$19
Pollution reduction within one year after policy enactment	10%	
	20%	
	30%	
Required distance from residential areas		2 miles
		5 miles
		10 miles
		50 miles

4. Example of a choice task

	Scenario 1	Scenario 2
Policy types	Ban on new fossil fuel car sales	Government subsidies for low-emission transportation alternatives
Immediate pollution reduction	10% immediate reduction of air pollution	10% immediate reduction of air pollution
Beginning of policy implementation	2020	2030
Policy cost (per household, per month)	$6	$10
Policy endorsement by	Democratic Party	U.S. Alliance of Automobile Manufacturers
Select one	○	○

If you had the possibility to vote for Scenario 1 in a direct democratic vote, how likely would you vote for it? (0 is "would definitely NOT vote for" and 10 is "would definitely vote for")

Scenario 1	0	1	2	3	4	5	6	7	8	9	10

If you had the possibility to vote for Scenario 2 in a direct democratic vote, how likely would you vote for it? (0 is "would definitely NOT vote for" and 10 is "would definitely vote for")

Scenario 2	0	1	2	3	4	5	6	7	8	9	10

Figure S1: An example of a choice task

5. Social norms manipulations

Phasing out fossil fuel cars – social norms manipulations

	treatment as part of choice experiment instructions	**treatment during choice situation**
Group A: endorsement norm (n = 508)	More important perhaps than the policy type or expert opinions on aspects like costs, timing, and pollution, many people listen to their peers when forming political opinions. The **considerations and behaviors of people living in [your state]** mirror the real-life concerns of working people. In the context of phasing out fossil fuel cars, you may be interested to know that **more and more people** living in [your state] are buying **non-fossil fuel** cars and have already started to **change their transportation habits**, e.g. by using public transportation.	***Remember: More and more people*** *living in [your state] are buying* ***non-fossil fuel*** *cars and have already started to* ***change their transportation habits****, e.g. by using public transportation.*
Group B: non-endorsement norm (n = 506)	More important perhaps than the policy type or expert opinions on aspects like costs, timing, and pollution, many people listen to their peers when forming political opinions. The **considerations and behaviors of people living in [your state]** mirror the real-life concerns of working people. In the context of phasing out fossil fuel cars, you may be interested to know that the number of people owning **non-fossil fuel cars** in [your state] is **negligible,** and relatively **few** people living in [your state] are **willing to change** their **transportation habits**, e.g. by using public transportation.	*Remember: the number of people owning* ***non-fossil fuel cars*** *in [your state] is* ***negligible,*** *and relatively* ***few*** *people living in [your state] are* ***willing to change*** *their* ***transportation habits****, e.g. by using public transportation.*
Group C: control (n = 506)	-	-

Scaling up CCS – social norms manipulations

	treatment as part of choice experiment instructions	**treatment during choice situation**
Group A: endorsement norm (n = 507)	More important perhaps than the policy type or expert opinions on aspects like costs and timing, many people listen to their peers when forming political opinions. The considerations of people living in [your state], for instance, mirror the real-life concerns of working people. In the context of scaling up CCS, you may be interested to know that **many people living in [your state]** think that CCS can help prevent the accumulation of CO_2 in the atmosphere and hence could **contribute to slowing down or reversing climate change**. Because a high number of people in [your state] think that carbon should be **kept out of the atmosphere**, policy scenarios for scaling up CCS find **broad public support in [your state]**.	*Remember: Because a high number of people in [your state] think that carbon should be **kept out of the atmosphere**, policy scenarios for scaling up CCS find **broad public support in [your state].***
Group B: non-endorsement norm (n = 507)	More important perhaps than the policy type or expert opinions on aspects like costs and timing, many people listen to their peers when forming political opinions. The considerations of people living in [your state], for instance, mirror the real-life concerns of working people. In the context of scaling up CCS, you may be interested to know that **many people living in [your state]** think that fuels that emit CO_2 when burnt should not be used at all, and that employing CCS allows continued exploitation of non-sustainable energy sources and hence **delays a real transition to a sustainable energy system**. Because a high number of people think that fossil fuels should be **kept in the ground**, policy scenarios for scaling up CCS find only **weak public support in [your state]**.	*Remember: Because a high number of people in [your state] think that fossil fuels should be **kept in the ground**, policy scenarios for scaling up CCS find only **weak public support in [your state].***
Group C: control (n = 506)	-	-

6. Relevant measures used in the survey

Table S3: Survey items and frequencies

Variable	Questions and Distribution
Age	*Please indicate your year of birth.* Transformed to respondents' age.
Gender	*Please indicate your gender.* Male 44.7%, Female 55.3%
Income	*Please indicate an estimate of your annual family income (before taxes):* 1 = Less than $20,000 (14.7%) / 2 = $20,000 - $39,999 (20.2%) / 3 = $40,000 - $59,999 (17.0%) / 4 = $60,000 - $79,999 (13.4%) / 5 = $80,000 - $99,999 (10.1%) / 6 = $100,000 - $149,999 (15.3%) / 7 = More than $150,000 (8.6%) / 8 = Don't know / Prefer not to answer (0.6%)
Urban-rural	*Which of the following best describes the area you live in?* 1 = Urban (24.6%); 2 = Suburban (52.4%); 3 = Rural (23.0%)
Standardized car ownership	Ratio of cars per household, computed based on: *1) How many cars does your household own?* 1 (7.0%); 2 (44.7%); 3 (35.9%); 4 (9.1%); 5 or more (3.3%) *2) How many people live in your household (yourself included)?* 1 (23.6%); 2 (40.0%); 3 (17.4%) 4 (11.8%); 5 (5.3%); 6 or more (2.0%)
Party identification	*Generally speaking, do you consider yourself a(n):* 1 = Strong Democrat (17.6%); 2 = Weak Democrat (8.9%); 3 = Lean Democrat (9.3%); 4 = Independent (32.6%); 5 = Lean Republican (11.2%); 6 = Weak Republican (6.2%); 7 = Strong Republican (14.2%)
Energy knowledge	Additive index, based on 3 items: Know how many nuclear reactors are currently in operation in the US (10.7% correct) Know renewable energy sources (65.5% correct) Heard of carbon capture and storage technologies before (18.9% yes; 24.0% not sure; 57.2% no)
Knowledge about CCS	Heard of carbon capture and storage technologies before 1 = no (57.2%); 2 = not sure (24.0%); 3 = yes (18.9%)
Environmental behavior	Additive index, based on a summated rating scale (3 items): *How often do you recycle?* 1 = never (6.3%); 2 (5.0%); 3 (5.0%); 4 (11.4%); 5 (13.6%); 6 (16.2%); 7 = very often (42.6%) *How often do you buy organic products?* 1 = never (18.2%); 2 (17.2%); 3 (14.3%); 4 (19.1%); 5 (15.2%); 6 (7.7%); 7 = very often (8.2%) *How often do you try to limit your meat consumption?* 1 = never (21.1%); 2 (12.1%); 3 (12.8%); 4 (20.1%); 5 (12.6%); 6 (9.5%); 7 = very often (11.8%)

Table S3 (cont.)

Variable	Questions and Distribution
Community attachment	Factor variable, based on a summated rating scale (3 items): *I identify with the lifestyle and values of the people who live in my state.* 1 = strongly disagree (6.6%); 2 (8.6%); 3 (23.8%); 4 (33.1%); 5 (19.9%); 6 = strongly agree (8.0%) *I am attached to the community living in my state.* 1 = strongly disagree (7.6%); 2 (11.3%); 3 (23.4%); 4 (29.4%); 5 (18.2%); 6 = strongly agree (10.0%) *I have a lot in common with most of the people in my state.* 1 = strongly disagree (5.9%); 2 (11.1%); 3 (24.7%); 4 (32.8%); 5 (16.4%); 6 = strongly agree (9.2%)
Psychological distance of climate change	Factor variable, based on 6 items (one omitted): *My local area is likely to be affected by climate change.* (psy1) 1 = strongly disagree (7.0%); 2 (7.6%); 3 (16.3%); 4 (25.0%); 5 (20.9%); 6 = strongly agree (23.2%) *Climate change most likely affects areas that are far away from here.* (psy2) 1 = strongly disagree (27.6%); 2 (18.5%); 3 (21.3%); 4 (14.7%); 5 (9.1%); 6 = strongly agree (8.7%) *Climate change is likely to have a big impact on people like me.* (psy3) 1 = strongly disagree (8.0%); 2 (8.2%); 3 (15.3%); 4 (22.4%); 5 (19.9%); 6 = strongly agree (26.3%) *I am certain that climate change is really happening.* (psy4) 1 = strongly disagree (6.5%); 2 (6.1%); 3 (11.3%); 4 (17.2%); 5 (18.6%); 6 = strongly agree (40.3%) *Most scientists agree that human activities are causing climate change.* (psy5) 1 = strongly disagree (5.3%); 2 (4.2%); 3 (12.2%); 4 (21.2%); 5 (22.4%); 6 = strongly agree (34.8%) *When, if at all, do you think America will start feeling the effects of human-caused climate change?* (psy6) 1 = We are already feeling the effects (58.8%); 2 = within the next 10 years (12.2%); 3 = within the next 25 years (9.5%); 4 = within the next 50 years (3.6%); 5 = within the next 100 years (3.2%); 6 = beyond the next 100 years (3.7%); 7 = never (9.0%)
	Aggregation: First, an initial correlation analysis shows that *psy2* does not correlate with the other 5 items: psy1 psy2 psy3 psy4 psy5 psy6 psy1 psy2 -.02 psy3 .77 .01 psy4 .73 .01 .77 psy5 .65 .03 .68 .71 psy6 -.61 .05 -.63 -.68 -.60 Next, we reverse-scored *psy6* and used confirmatory factor analysis to check whether the remaining five items are valid representations of the underlying latent construct. All factor loadings are above .75, which supports the validity of the factor model: psy1 = .81 / psy3 = .85 / psy4 = .90 / psy5 = .80 / psy6 = .75 (all significant at $p < .001$). According to various fit indices, the model fits our data well (CFI=1.000; RMSEA=0.000; SRMR=0.003). Scale reliability coefficient (Cronbach's alpha): .909
Trust in stakeholders	*To what extent do you mistrust or trust the following actors and organizations?* *Greenpeace:* 1 = strongly mistrust (8.7%); 2 = mistrust (11.7%); 3 = neither mistrust nor trust (41.4%); 4 = trust (30.7%); 5 = strongly trust (7.5%) *Carbon Capture Coalition:* 1 = strongly mistrust (5.6%); 2 = mistrust (12.5%); 3 = neither mistrust nor trust (60.5%); 4 = trust (17.9%); 5 = strongly trust (3.6%) *U.S. Alliance of Automobile Manufacturers:* 1 = strongly mistrust (5.4%); 2 = mistrust (19.5%); 3 = neither mistrust nor trust (58.1%); 4 = trust (14,7%); 5 = strongly trust (2.2%) *Democratic Party:* 1 = strongly mistrust (21.1%); 2 = mistrust (22.0%); 3 = neither mistrust nor trust (28.6%); 4 = trust (20.3%); 5 = strongly trust (8.0%) *Republican Party:* 1 = strongly mistrust (24.1%); 2 = mistrust (23.8%); 3 = neither mistrust nor trust (27.8%); 4 = trust (17.5%); 5 = strongly trust (6.7%)

7. Manipulation checks

a) Phasing out fossil fuel cars

We used the following question as a manipulation check:

> What do you think about the transportation trends in your state?
>
> 1. Relatively few people are changing their transportation habits.
> 2. More and more people are changing their transportation habits.
> 3. I don't know.
>
> *Note: the first and second response categories were randomized, while the third was fixed.*

Respondents in the endorsement norm condition were considerably more likely to indicate that more and more people are changing their transportation habits (26 percent) as compared to respondents in the non-endorsement norm condition (16 percent) or in the control group (20 percent). Respondents in the non-endorsement norm condition were considerably more likely to indicate that relatively few people are changing their transportation habits (67 percent) as compared to respondents in the endorsement norm condition (51 percent) or in the control group (60 percent). One-way analyses of variance show that these differences between the conditions are statistically significant at $p<0.01$, indicating that the experimental manipulations were indeed effective.

b) Scaling up CCS

We used the following question as a manipulation check:

> What do you think about the attitudes of the people living in your state with regard to CCS?
>
> 1. Most people think that fossil fuels should be kept in the ground.
> 2. Most people think that carbon should be kept out of the atmosphere.
> 3. I don't know.
>
> *Note: the first and second response categories were randomized, while the third was fixed.*

Respondents in the endorsement norm condition, which emphasized that „carbon should be kept out of the atmosphere," were considerably more likely to indicate that most people subscribe to this view (45 percent) as compared to respondents in the non-endorsement norm condition (36 percent) or in the control group (38 percent). Respondents in the non-endorsement norm condition, which emphasized that „fossil fuels should be kept in the ground," were considerably more likely to indicate that most people subscribe to this view (23 percent) as compared to respondents in the endorsement norm condition or in the control group (12 percent, respectively). One-way analyses of variance show that these differences between the conditions are statistically significant at $p<0.01$, indicating that the experimental manipulations were indeed effective.

8. Main results of the choice experiments

a) Phasing out fossil fuel cars

Table S4: Average marginal component effects from choice experiment on policy proposals to phase out fossil fuel cars

	Policy support (rating outcome)
Social norms treatments	
Endorsement norms	0.0114 (0.0149)
Non-endorsement norms	-0.0323* (0.0149)
Attribute 1: Policy endorsement	
Baseline: Democratic Party	
Republican Party	-0.00191 (0.00642)
U.S. Alliance of Automobile Manufacturers	0.00452 (0.00613)
Greenpeace	0.0162** (0.00580)
Attr. 2: Beginning of policy implementation	
Baseline: 2020	
2030	0.0183*** (0.00540)
2040	-0.00492 (0.00539)
2050	-0.0193*** (0.00573)
Attr. 3: Policy type	
Baseline: ban on new fossil fuel car sales	
Government subsidies for low-emission alternatives	0.0378*** (0.00535)
Increase in fossil fuel taxes	0.00171 (0.00557)
Attr. 4: Policy cost (per household & month)	
Baseline: $2	
$6	-0.0169** (0.00561)
$10	-0.0296*** (0.00579)
$14	-0.0551*** (0.00590)
Attr. 5: Pollution reduction within one year of policy enactment	
Baseline: 10%	
20%	0.000588 (0.00486)
30%	0.0211*** (0.00484)
Constant	0.494*** (0.0130)
N	24,320

*Notes: Coefficients from OLS regressions; standard errors in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001. The dependent variable is the rating outcome of the choice experiment. Dummies for norms treatments included.*

b) Scaling up CCS

Table S5: Average marginal component effects from choice experiment on policy proposals to encourage CCS deployment

	Policy support (rating outcome)
Social norms treatments	
Endorsement norms	0.00435 (0.0144)
Non-endorsement norms	-0.0149 (0.0148)
Attribute 1: Policy endorsement	
Baseline: Democratic Party	
Republican Party	0.0105 (0.00679)
Carbon Capture Coalition	0.0192*** (0.00575)
Greenpeace	0.0100 (0.00610)
Attr. 2: Beginning of policy implementation	
Baseline: 2020	
2030	0.000712 (0.00519)
2040	-0.0138* (0.00542)
2050	-0.0210*** (0.00569)
Attr. 3: Policy type	
Baseline: ban on the construction of new fossil fuel power plants without CCS	
Government subsidies for CCS	-0.0182** (0.00575)
Increase in taxes on fossil fuel power generation without CCS	-0.0264*** (0.00544)
Attr. 4: Policy cost (per household & month)	
Baseline: $4	
$9	-0.0140** (0.00538)
$14	-0.0420*** (0.00608)
$19	-0.0519*** (0.00653)
Attr. 5: Required distance from residential areas	
Baseline: 2 miles	
5 miles	0.0241*** (0.00602)
10 miles	0.0381*** (0.00580)
50 miles	0.0565*** (0.00663)
Constant	0.474*** (0.0132)
N	24,320

*Notes: Coefficients from OLS regressions; standard errors in parentheses. * p < 0.05, ** p < 0.01, *** p < 0.001. The dependent variable is the rating outcome of the choice experiment. Dummies for norms treatments included.*

9. Descriptive social norms and support for decarbonization policies: Linear contrast models

The following results complement those displayed in Table 1 of the paper. Table 1 contains effects of positive and negative descriptive norms relative to the respective control condition. Linear contrast models directly compare the effects of positive and negative descriptive norms.

For the case of fossil fuel cars phase-out policies, the coefficient of this linear contrast of positive norms compared to negative norms is 0.0428 (SE = 0.0147). This coefficient is different from zero ($p < 0.01$).

For the case of CCS policies, the coefficient of positive norms compared to negative norms is 0.0194 (SE = 0.0145). This coefficient is not statistically distinguishable from zero.

Figure S2 illustrates the effects of positive and negative descriptive norms information as presented in the paper (see also Table 1), as well as the total effects derived from the linear contrasts described above.

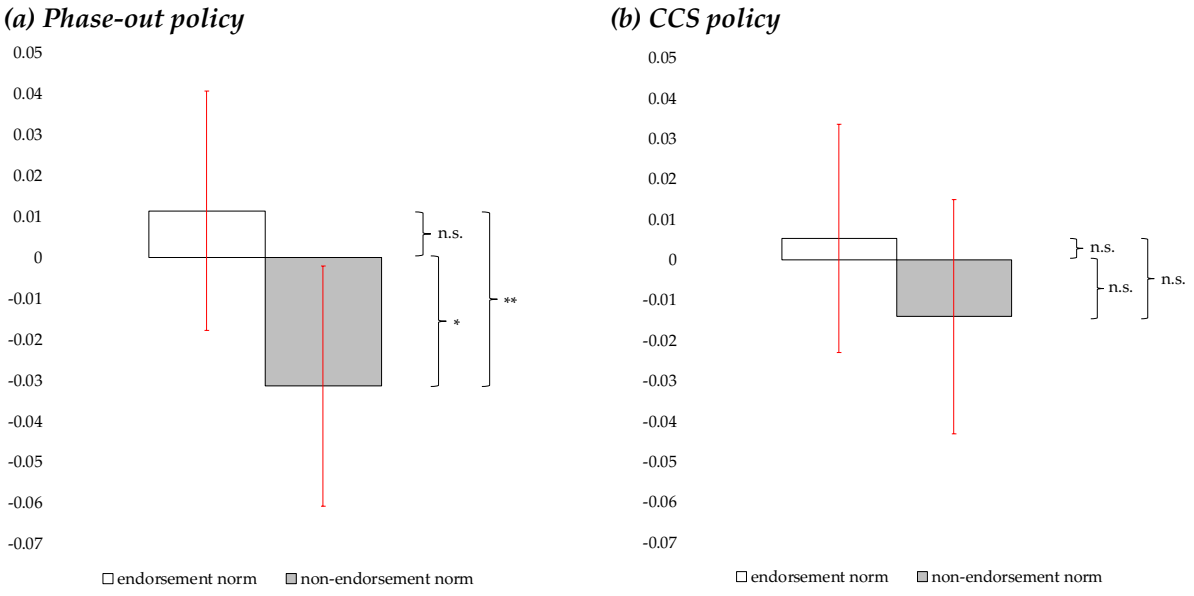

Figure S2: Effects of endorsement (positive) and non-endorsement (negative) norms on climate policy support for (a) phase-out policies and (b) CCS policies.
*Note: Red error bars represent associated 95% confidence intervals. * $p < 0.05$, ** $p < 0.01$, n.s. = not significant.*

10. Elite cues and support for decarbonization policies: Full simulation results

To investigate the role of elite cues in climate policy preference formation, we computed predicted values of policy support levels for both policies to phase-out fossil fuel cars and policies to scale-up CCS. We take advantage of the fact that we posed the rating task as a probabilistic question, asking respondents to indicate how likely they would vote for each proposal in a direct democratic vote. Rescaling the policy ratings and mapping them onto the set [0, 100] allows us to predict levels of support for specific policy proposals by (first) estimating the effect of policy attributes on the rescaled rating variable (controlling for the social norms manipulations), and (second) computing predicted values for policy proposals of interest (see Bechtel & Scheve, 2013; Rinscheid et al., 2019).

As shown in the paper, elite cue effects are contingent on people's trust in the source of a message. We computed predicted policy support for five mutually exclusive respondent profiles:
(1) respondents that trust the Democratic but not Republican Party (n = 518),
(2) respondents that trust the Republican but not Democratic Party (n = 434),
(3) respondents that mistrust both parties (n = 263),
(4) respondents that neither trust nor mistrust any party (n = 238),
(5) respondents that trust both parties (n = 67).
Figure 6 in the paper illustrates the results for respondent profiles (1) and (2). In Figure S3, we show the full results for all respondent profiles.

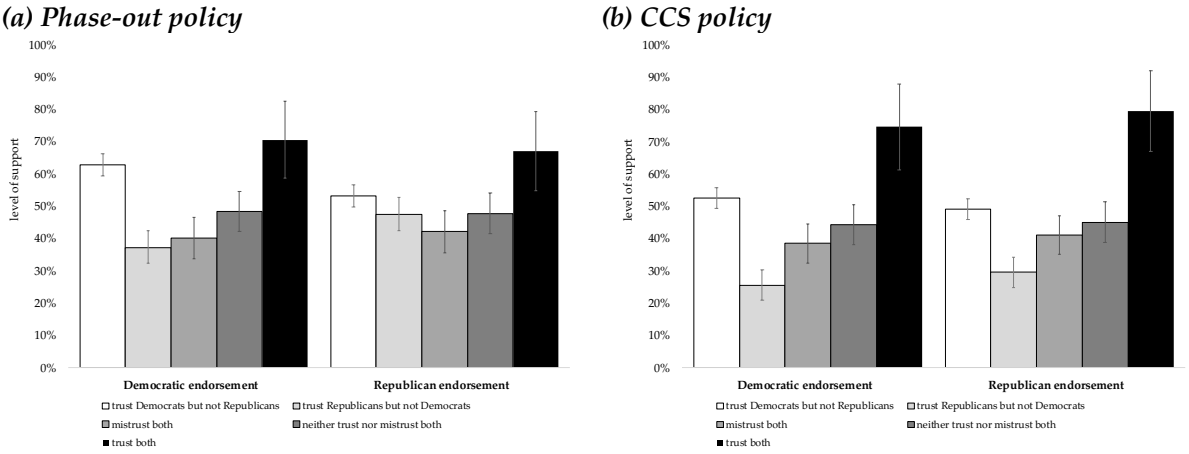

Figure S3: Predicted values of policy support, contingent on partisan endorsement and trust in parties.
Note: Error bars represent associated 95% confidence intervals.

11. Minimal detectable effects and power computations

We report here computations of the minimal detectable effect in our study. Given that:

$$\beta > (t_{1-v} + t_{\alpha/2})\, SE(\hat{\beta})$$

for a power v of 0.8 and significance level $\alpha = 0.05$:

$$\beta > (t_{0.2} + t_{0.025})\, SE(\hat{\beta}) \;=\; (0.84 + 1.96) * SE(\hat{\beta}) \;=\; 2.8 * SE(\hat{\beta})$$

Then:

$$\beta_{MDE} \;=\; 2.8 * \frac{\sigma}{\sqrt{P(1 \;-\; P)N}}$$

with σ being the standard deviation of the outcome variable (average policy support), N the sample size and P the proportion of the treated.

In our case, considering only one treatment and one control group, with a sample size of 1000:

$$\beta_{MDE} \;=\; 2.8 * \frac{\sigma}{\sqrt{0.5(0.5)1000}} \;= 0.18 * \sigma$$

For models 1 & 2 in the paper, the outcome variable is average support for phase-out policies.
The standard deviation of this variable is $\sigma = 0.237$. Therefore:

$$\beta_{MDE} \;=\; 0.237 * 0.18 \;=\; 0.043$$

For models 3 & 4, the outcome variable is average support for CCS policies.
The standard deviation of this variable is $\sigma = 0.232$. Therefore:

$$\beta_{MDE} \;=\; 0.232 * 0.18 \;=\; 0.042$$

The effects that we find in all models are smaller than 0.04. We do not claim that the non-significant effects that we find are null effects, as they can be due to our lack of power to detect effects smaller than 0.04. However, if those effects were higher than 0.04, we should have been able to detect them (more correctly, we had 0.8 probability of detecting them). We therefore conclude that if undetected effects exist, they are most likely small in size.

According to power computations, if the *real* effects were as big as the ones that we find (though non-significant, those coefficients are the best estimate that we have) we would have needed a massive sample size. With a power of 0.8 and a significance level of 0.05, to identify effects of the size of those of endorsement norms in models 1 and 2 (0.01), we would have needed 8800 observations only in the endorsement norms group (leading to 26400 total observations for two treatment and one control group). To identify effects of the size of those

of endorsement norms in models 3 and 4 (0.005 and 0.006), we would have needed more than 35000 observations only in the endorsement norms group (leading to more than 10000 total observations for two treatment and one control group).