

A representative survey experiment of motivated climate change denial

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Sample Characteristics

Summary Statistics

	US Population	Whole Sample	Belief		Demand		Behavior
			<i>Main</i>	<i>Control</i>	<i>Main</i>	<i>Control</i>	
Age							
18-24	11,7%	11,8%	12,0%	12,8%	11,1%	11,6%	11,3%
25-39	26,1%	25,0%	25,8%	26,3%	24,4%	24,1%	24,6%
40-59	32,2%	32,6%	33,4%	30,9%	32,0%	32,7%	34,1%
>60	30,0%	30,6%	28,9%	30,0%	32,5%	31,6%	30,0%
Sex							
Male	49,0%	48,8%	48,5%	49,4%	48,1%	47,1%	50,8%
Female	51,0%	51,2%	51,5%	50,6%	51,9%	52,9%	49,3%
Education							
High-School or less	65,2%	65,0%	65,8%	65,0%	66,3%	63,7%	64,5%
University / Professional Degree	34,8%	35,0%	34,3%	34,9%	33,8%	36,3%	35,5%
Region							
Northeast	17,1%	17,2%	15,8%	18,8%	17,6%	17,2%	16,8%
Midwest	20,6%	20,7%	21,9%	19,2%	19,1%	22,2%	21,1%
South	38,6%	38,7%	37,8%	39,1%	39,5%	37,7%	39,4%
West	23,6%	23,4%	24,6%	23,0%	23,8%	22,9%	22,8%
Income							
Below Median	50,0%	50,1%	52,6%	47,9%	49,0%	51,8%	48,9%
Above Median	50,0%	50,0%	47,4%	52,1%	51,0%	48,2%	51,1%
Party Affiliation							
Republican	30,0%	28,0%	28,0%	30,0%	26,0%	28,1%	27,8%
Independent	41,0%	45,4%	45,8%	44,8%	47,5%	44,9%	44,0%
Democrat	27,0%	26,7%	26,3%	25,3%	26,5%	27,0%	28,3%
Post-Materialism							
Materialist	14,4%	19,0%	20,3%	20,8%	18,6%	17,5%	18,1%
Mixed	57,0%	63,2%	60,9%	61,7%	63,9%	63,4%	66,0%
Post-Materialist	24,0%	17,8%	18,9%	17,5%	17,5%	19,1%	15,9%
Area							
Rural	19,3%	10,3%	10,6%	10,7%	10,4%	10,0%	9,7%
Urban	80,7%	89,8%	89,6%	89,4%	89,7%	90,0%	90,3%
N		4000	800	799	800	801	800

Supplementary Table 1: The table presents characteristics of the US population, our sample, treatment Belief Main, Belief Control, Demand Main, Demand Control and Behavior. Measures for the US population are taken from the United States Census Bureau (age, education, region, income, area), the World Value Survey 2017 (post-materialism) and GALLUP (party affiliation).

Average Treatment Effects

Average Treatment Effect: Belief

Average Treatment Effect: Belief		
	Dependent Variable: Climate Change Belief	
	(1)	(2)
Treatment-Dummy Belief	-2.208 (1.553)	-1.810 (1.538)
Constant	35.55*** (1.083)	62.38*** (7.993)
Controls	No	Yes
r2	0.00129	0.0767
r2_a	0.000650	0.0507
N	1569	1569

Supplementary Table 2: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the belief about climate change, participants' incentivized guess of what percentage of climate scientists doubt that human activities are the main cause of global warming over the last decades. Treatment-Dummy Belief is a dummy variable indicating whether participants were randomly allocated to treatment *Belief Main* or *Belief Control*. The dummy variable takes the value of 1 if the participant was in treatment *Belief Main* and 0 if the participant was randomly assigned to the control condition. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Average Treatment Effect: Information Demand

Average Treatment Effect: Information Demand		
	Dependent Variable: Video Choice	
	(1)	(2)
Treatment-Dummy Demand	-0.0174 (0.0254)	-0.0180 (0.0248)
Constant	0.515*** (0.0180)	0.339*** (0.122)
Controls	No	Yes
r2	0.000303	0.0979
r2_a	-0.000341	0.0722
N	1553	1553

Supplementary Table 3: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy video choice, the participants' choice between a video that reflects the scientific consensus on climate change and another video that plays down the role of humans and provides slanted information. The dummy takes the value of 1 if the participants choose to watch the video downplaying climate change. Treatment-Dummy Demand is a dummy variable indicating whether participants were randomly allocated to treatment Demand Main or Demand Control. The dummy variable takes the value of 1 if the participant was in treatment Belief Main and 0 if the participant was randomly assigned to the control

condition. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * ($p < 0.10$), ** ($p < 0.05$), *** ($p < 0.01$)

Average Treatment Effect: Information Demand (Probit)		
	Dependent Variable: Video Choice	
	(1)	(2)
Treatment-Dummy Demand	-0.0436 (0.0636)	-0.0489 (0.0663)
Constant	0.0372 (0.0450)	-0.411 (0.330)
Controls	No	Yes
N	1553	1553

Supplementary Table 4: Probit regression estimates, robust standard errors in parentheses. The dependent variable is the dummy video choice, the participants' choice between a video that reflects the scientific consensus on climate change and another video that plays down the role of humans and provides slanted information. The dummy takes the value of 1 if the participants choose to watch the video downplaying climate change. Treatment-Dummy Demand is a dummy variable indicating whether participants were randomly allocated to treatment Demand Main or Demand Control. The dummy variable takes the value of 1 if the participant was in treatment Belief Main and 0 if the participant was randomly assigned to the control condition. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * ($p < 0.10$), ** ($p < 0.05$), *** ($p < 0.01$)

Average Treatment Effect: Behavior

Average Treatment Effect: Behavior		
	Dependent Variable: Donation Decision	
	(1)	(2)
Treatment-Dummy Behavior	0.0288 (0.0251)	0.0210 (0.0245)
Constant	0.411*** (0.0177)	0.467*** (0.122)
Controls	No	Yes
r2	0.000851	0.0924
r2_a	0.000207	0.0666
N	1555	1555

Supplementary Table 5: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy donation decision, it indicates whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Treatment-Dummy Behavior is a dummy variable indicating whether participants were randomly allocated to treatment Behavior or Demand Main. The dummy variable takes the value of 1 if the participant was in treatment Behavior and 0 if the participant was randomly assigned to Demand Main. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * ($p < 0.10$), ** ($p < 0.05$), *** ($p < 0.01$)

Average Treatment Effect: Behavior (Probit)

	Dependent Variable: Donation Decision	
	(1)	(2)
Treatment-Dummy Behavior	0.0736 (0.0640)	0.0572 (0.0667)
Constant	-0.224*** (0.0454)	-0.114 (0.327)
Controls	No	Yes
N	1555	1555

Supplementary Table 6: Probit Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy donation decision, it indicates whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Treatment-Dummy Behavior is a dummy variable indicating whether participants were randomly allocated to treatment Behavior or Demand Main. The dummy variable takes the value of 1 if the participant was in treatment Behavior and 0 if the participant was randomly assigned to Demand Main. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Heterogeneity Income

Heterogeneity Income: Belief

Median Split

Heterogeneity Income: Median Split Belief						
	Dependent Variable: Climate Change Belief					
			Below Median Income		Above Median Income	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment-Dummy Belief	-1.881 (2.084)	-1.408 (2.107)	-1.881 (2.084)	-1.375 (2.121)	-2.253 (2.313)	-2.654 (2.259)
Income Median	3.342 (2.159)	-5.739 (4.820)				
Treatment-Dummy Belief * Income Median	-0.372 (3.113)	-0.812 (3.069)				
Constant	33.82*** (1.489)	62.18*** (8.022)	33.82*** (1.489)	42.86*** (10.71)	37.16*** (1.563)	82.29*** (9.810)
Controls	No	Yes	No	Yes	No	Yes
r ²	0.00392	0.0768	0.00103	0.0598	0.00123	0.140
r ² _a	0.00201	0.0501	-0.000236	0.00984	-0.0000618	0.0976
N	1569	1569	793	793	776	776

Supplementary Table 7: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the climate change belief, participants' incentivized guess of what percentage of climate scientists doubt that human activities are the main cause of global warming over the last decades. Treatment-Dummy Belief is a dummy variable indicating whether participants were randomly allocated to treatment *Belief Main* or *Belief Control*. The dummy variable takes the value of 1 if the participant was in treatment *Belief Main* and 0 if the participant was randomly assigned to the control condition. Income Median is a dummy indicating whether the yearly household income was below the median household income in the United States. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

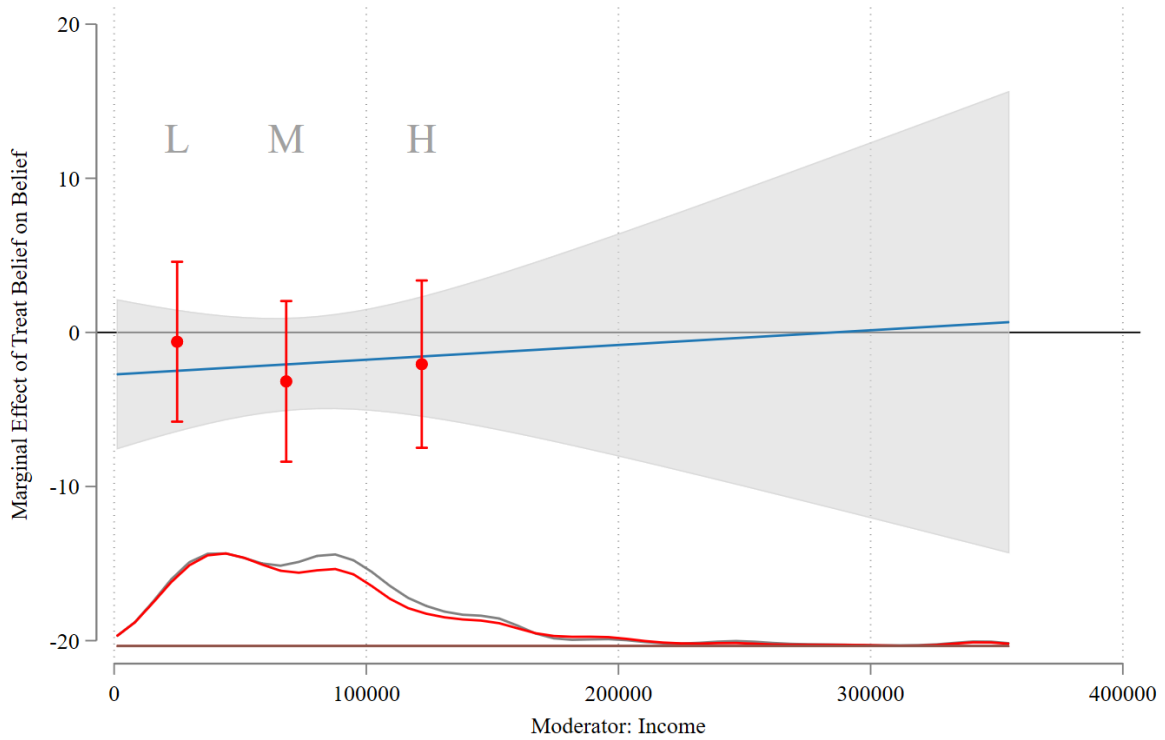
Binning estimators

We implement a binning estimator to study non-linearities in the interaction effect. We run the binning estimator using two types of income: income as reported by participants and winsorized income (we winsorized 1 percent at each tail of the distribution).¹

¹ Note: The reason for winsorizing the income variable is that extreme income values (> 350 000, where the median of the variable is 69,000) render the visualization of the binning estimator uninformative. It is important to note that we did not report the winsorizing of the income variable in the Stage 1 report.

	Full Model		Adaptive Lasso ²	
	Income	Winsorized Income	Income	Winsorized Income
Without Controls	0.3014	0.0772		
With Controls	0.5606	0.3285	0.5465	0.3864

Supplementary Table 8: P-values of Wald-Tests. NULL hypothesis: linear interaction model and the three-bin model are statistically equivalent.



Supplementary Figure 1: Conditional marginal effects from binning estimator (see Methods). The plot shows the estimated marginal effects using the conventional linear interaction model with a pointwise 95% confidence interval (blue line with grey area) and the binning estimator (three red dots and corresponding lines). The density plot at the bottom visualizes the distributions of the moderator (Income) of Belief Control (N=785) and Belief Main (N=784).

² 40 Selected Variables. The selected variables are available on request

Heterogeneity Income: Information Demand

Median Split

Heterogeneity Income: Median Split Demand						
Dependent Variable: Video Choice						
			Below Median Income		Above Median Income	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment-Dummy Demand	-0.00262 (0.0356)	-0.0149 (0.0347)	-0.00262 (0.0356)	-0.0204 (0.0351)	-0.0308 (0.0362)	-0.0295 (0.0361)
Income Median	-0.0181 (0.0360)	-0.0441 (0.0772)				
Treatment-Dummy Demand * Income Median	-0.0282 (0.0508)	-0.00620 (0.0497)				
Constant	0.523*** (0.0248)	0.337*** (0.123)	0.523*** (0.0248)	0.357** (0.161)	0.505*** (0.0260)	0.317* (0.170)
Controls	No	Yes	No	Yes	No	Yes
r2	0.00154	0.0979	0.00000689	0.117	0.000947	0.104
r2_a	-0.000398	0.0716	-0.00126	0.0700	-0.000364	0.0591
N	1553	1553	789	789	764	764

Supplementary Table 9: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy video choice, the participants' choice between a video that reflects the scientific consensus on climate change and another video that plays down the role of humans and provides slanted information. The dummy takes the value of 1 if the participants choose to watch the video downplaying climate change. Treatment-Dummy Demand is a dummy variable indicating whether participants were randomly allocated to treatment Demand Main or Demand Control. The dummy variable takes the value of 1 if the participant was in treatment Belief Main and 0 if the participant was randomly assigned to the control condition. Income Median is a dummy indicating whether the yearly household income was below the median household income in the United States. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Heterogeneity Income: Median Split Demand (Probit)

	Dependent Variable: <i>Video Choice</i>		
	Below Median Income		Above Median Income
	(1)	(2)	(3)
Treatment-Dummy Demand	-0.0391 (0.0933)	-0.0546 (0.0948)	-0.0830 (0.0959)
Income Median	-0.118 (0.204)		
Treatment-Dummy Demand * Income Median	-0.0199 (0.133)		
Constant	-0.417 (0.334)	-0.357 (0.431)	-0.521 (0.479)
Controls	Yes	Yes	Yes
N	1553	789	764

Supplementary Table 10: Probit Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy video choice, the participants' choice between a video that reflects the scientific consensus on climate change and another video that plays down the role of humans and provides slanted information. The dummy takes the value of 1 if the participants choose to watch the video downplaying climate change. Treatment-Dummy Demand is a dummy variable indicating whether participants were randomly allocated to treatment Demand Main or Demand Control. Income Median is a dummy indicating whether the yearly household income was below the median household income in the United States. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Binning estimators

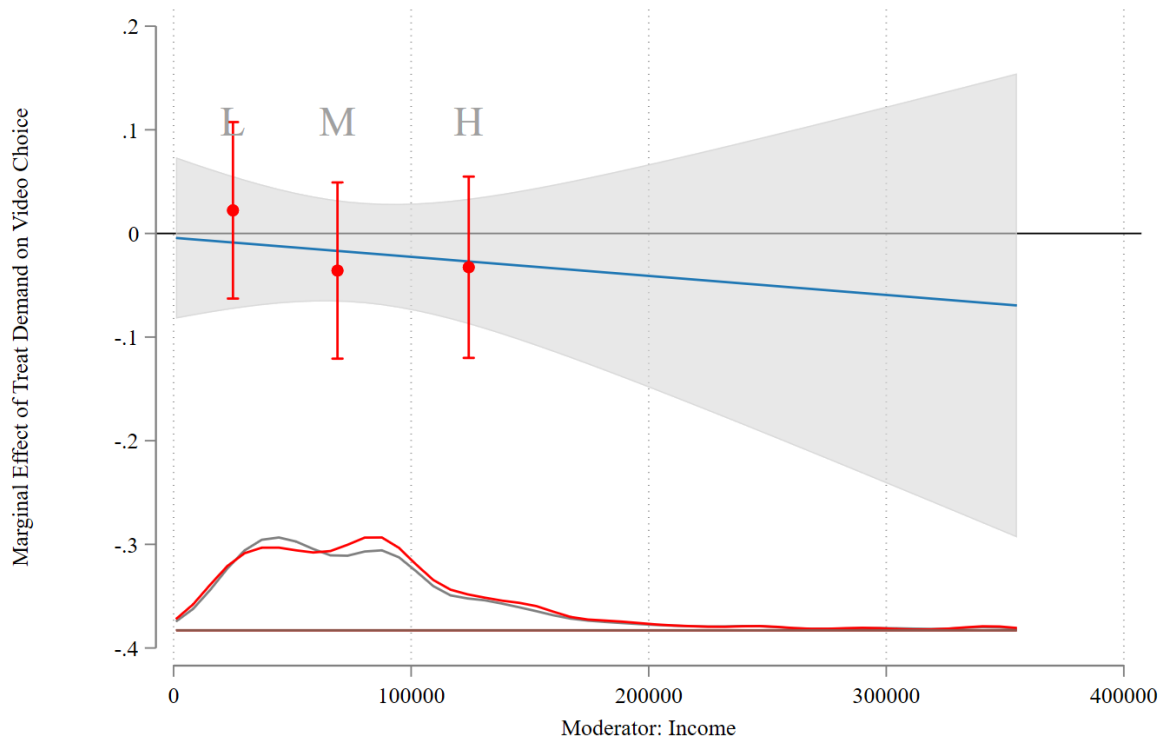
We implement a binning estimator to study non-linearities in the interaction effect. We run the binning estimator using two types of income: income as reported by participants and winsorized income (we winsorized 1 percent at each tail of the distribution).³

	Full Model		Adaptive Lasso ⁴	
	Income	Winsorized Income	Income	Winsorized Income
Without Controls	0.7250	0.6817		
With Controls	0.6363	0.5678	0.7949	0.7467

Supplementary Table 11: P-values of Wald-Tests. NULL hypothesis: linear interaction model and the three-bin model are statistically equivalent.

³ Note: The reason for winsorizing the income variable is that extreme income values (> 350,000, where the median of the variable is 69,000) render the visualization of the binning estimator uninformative. It is important to note that we did not report the winsorizing of the income variable in the Stage 1 report.

⁴ 43 Selected Variables. The selected variables are available on request



Supplementary Figure 2: Conditional marginal effects from binning estimator (see Methods). The plot shows the estimated marginal effects using the conventional linear interaction model with a pointwise 95% confidence interval (blue line with grey area) and the binning estimator (three red dots and corresponding lines). The density plot at the bottom visualizes the distributions of the moderator (Income) of Demand Control (N=775) and Demand Main (N=778).

Heterogeneity Income: Behavior

Median Split

Heterogeneity Income: Median Split Behavior						
	Dependent Variable: Donation Decision					
			Below Median Income		Above Median Income	
	(1)	(2)	(3)	(4)	(5)	(6)
Treatment-Dummy Behavior	0.0364 (0.0361)	0.0274 (0.0350)	0.0364 (0.0361)	0.0214 (0.0352)	0.0218 (0.0347)	0.0177 (0.0345)
Income Median	-0.0774** (0.0352)	-0.158** (0.0740)				
Treatment-Dummy Behavior * Income Median	-0.0145 (0.0500)	-0.0125 (0.0491)				
Constant	0.451*** (0.0254)	0.465*** (0.122)	0.451*** (0.0254)	0.449*** (0.166)	0.373*** (0.0244)	0.374** (0.146)
Controls	No	Yes	No	Yes	No	Yes
r2	0.00824	0.0925	0.00133	0.130	0.000504	0.0953
r2_a	0.00632	0.0660	0.0000223	0.0816	-0.000766	0.0520
N	1555	1555	766	766	789	789

Supplementary Table 12: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy donation decision, it indicates whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Treatment-Dummy Behavior is a dummy variable indicating whether participants were randomly allocated to treatment Behavior or Demand Main. The dummy variable takes the value of 1 if the participant was in treatment Behavior and 0 if the participant was randomly assigned to Demand Main. Income Median is a dummy indicating whether the yearly household income was below the median household income in the United States. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Heterogeneity Income: Median Split Behavior (Probit)

	Dependent Variable: Donation Decision		
		Below Median Income	Above Median Income
	(1)	(2)	(3)
Treatment-Dummy Behavior	0.0704 (0.0936)	0.0574 (0.0962)	0.0480 (0.0951)
Income Median	-0.217** (0.0999)		
Treatment-Dummy Behavior * Income Median	-0.0296 (0.133)		
Constant	-0.292 (0.295)	-0.205 (0.449)	-0.434 (0.443)
Controls	Yes	Yes	Yes
N	1555	766	789

Supplementary Table 13: Probit Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy donation decision, it indicates whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Treatment-Dummy Behavior is a dummy variable indicating whether participants were randomly allocated to treatment Behavior or Demand Main. The dummy variable takes the value of 1 if the participant was in treatment Behavior and 0 if the participant was randomly assigned to Demand Main. Income Median is a dummy indicating whether the yearly household income was below the median household income in the United States. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Binning estimators

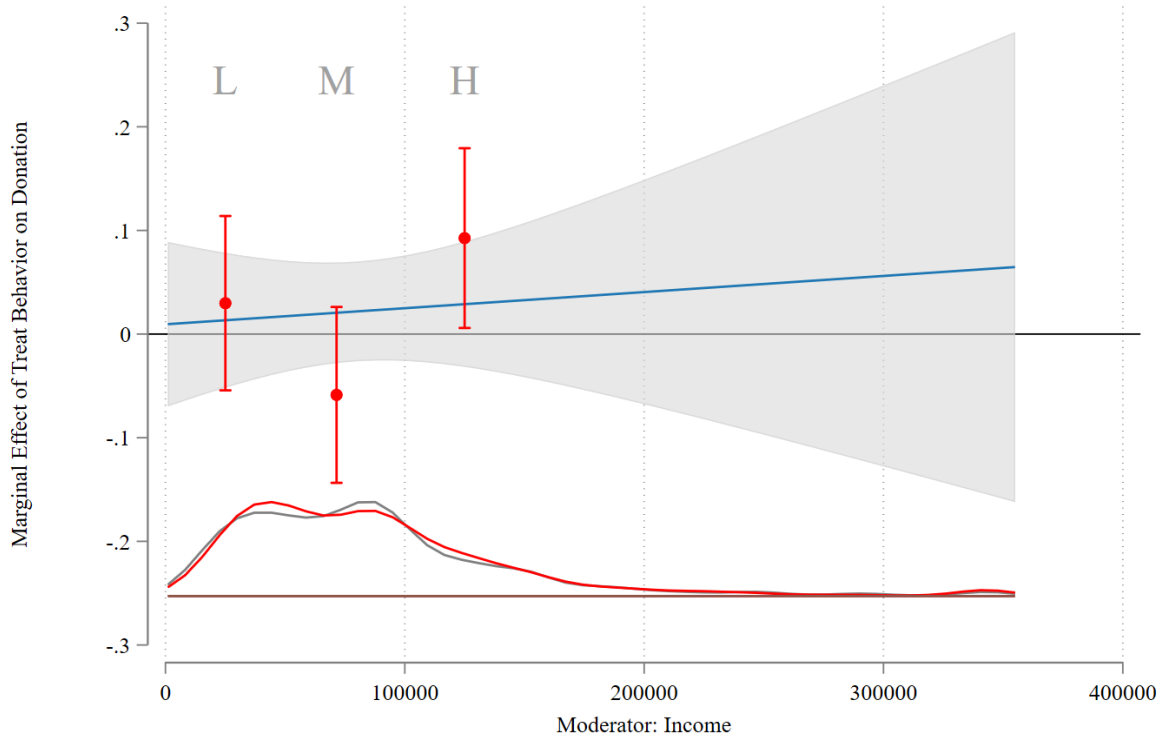
We implement a binning estimator to study non-linearities in the interaction effect. We run the binning estimator using two types of income: income as reported by participants and winsorized income (we winsorized 1 percent at each tail of the distribution).⁵

	Full Model		Adaptive Lasso ⁶	
	Income	Winsorized Income	Income	Winsorized Income
Without Controls	0.0027	0.0138		
With Controls	0.0028	0.0067	0.0631	0.0748

Supplementary Table 14: P value of Wald-Test. NULL hypothesis: linear interaction model and the three-bin model are statistically equivalent.

⁵ Note: The reason for winsorizing the income variable is that extreme income values (> 350 000, where the median of the variable is 69,000) render the visualization of the binning estimator uninformative. It is important to note that we did not report the winsorizing of the income variable in the Stage 1 report.

⁶ 68 selected Variables. The selected variables are available on request



Supplementary Figure 3: Conditional marginal effects from binning estimator (see Methods). The plot shows the estimated marginal effects using the conventional linear interaction model with a pointwise 95% confidence interval (blue line with grey area) and the binning estimator (three red dots and corresponding lines). The density plot at the bottom visualizes the distributions of the moderator (Income) of Demand Main (N=778) and Behavior (N=777).

Additional Analyses

Duration to fast (Sum up)

Ensuring data quality is of utmost importance for survey studies. A key concern is inattentiveness among survey participants. We kept track on the time spent by the respondents. In each condition separately, we drop participants that finish the survey under one-third of the median duration. In total, 101 participants (2.52 %) are excluded from our analysis as they finished the survey under one-third of the median duration.⁷

	Number excluded
Belief Main	16
Belief Control	14
Demand Main	22
Demand Control	26
Behavior	23

Supplementary Table 15: Number of participants that are excluded in each condition.

Results – without excluding participants

As described in the Sampling Plan Section of this report, our benchmark sample drops those respondents that simply clicked through the survey. We will run the same regressions using all observations. This allows us to show that dropping the fastest respondents does not affect our results systematically. Below we report the Treatment Dummy coefficients for our benchmark and the whole sample

	Benchmark Sample	Whole Sample
ATE – Belief		
Without Controls	-2.208 (1.5534)	-2.532 (1.5470)
With Controls	-1.810 (1.5382)	-2.122 (1.5327)
ATE – Information Demand		
Without Controls	-0.017 (0.0254)	-0.014 (0.0250)
With Controls	-0.018 (0.0248)	-0.017 (0.0245)
ATE – Behavior		
Without Controls	0.029 (0.0251)	0.03 (0.0247)
With Controls	0.021 (0.0245)	0.021 (0.0243)

Supplementary Table 16: Regression estimates (Treatment Dummy coefficients only) for Benchmark and whole sample, robust standard errors in parentheses.

⁷ Median Duration was measures in each condition separately.

Correlation (Belief Main, Demand Main, Behavior)

Correlation Belief Main		
Dependent Variable: Climate Change Belief		
	(1)	(2)
Donation decision	1.808 (2.286)	1.612 (2.350)
Constant	32.60*** (1.420)	66.84*** (11.55)
Controls	No	Yes
r2	0.000813	0.0962
r2_a	-0.000465	0.0437
N	784	784

Supplementary Table 17: Regression estimates, robust standard errors in parentheses. The dependent variable is the climate change belief, participants' incentivized guess of what percentage of climate scientists doubt that human activities are the main cause of global warming over the last decades. Donation decision is a dummy variable indicating whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Correlation Demand Main		
Dependent Variable: Video Choice		
	(1)	(2)
Donation decision	0.142*** (0.0361)	0.0876** (0.0371)
Constant	0.439*** (0.0232)	0.357** (0.162)
Controls	No	Yes
r2	0.0196	0.135
r2_a	0.0184	0.0848
N	778	778

Supplementary Table 18: Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy video choice, the participants' choice between a video that reflects the scientific consensus on climate change and another video that plays down the role of humans and provides slanted information. The dummy takes the value of 1 if the participants choose to watch the video downplaying climate change. Donation decision is a dummy variable indicating whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Correlation Behavior

	Dependent Variable: Video Choice	
	(1)	(2)
Donation decision	0.191*** (0.0353)	0.121*** (0.0369)
Constant	0.444*** (0.0239)	-0.0213 (0.189)
Controls	No	Yes
r2	0.0360	0.158
r2_a	0.0348	0.108
N	777	777

Supplementary Table 19: Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy video choice, the participants' choice between a video that reflects the scientific consensus on climate change and another video that plays down the role of humans and provides slanted information. The dummy takes the value of 1 if the participants choose to watch the video downplaying climate change. Donation decision is a dummy variable indicating whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Sample Split Party affiliation

	Heterogeneity Party Affiliation: Belief							
	Dependent Variable: Climate Change Belief							
	Whole Sample		Republicans		Independents		Democrats	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment-Dummy Belief	-2.208 (1.553)	-1.810 (1.538)	-2.345 (2.823)	-3.312 (2.711)	-5.673** (2.251)	-5.672** (2.305)	4.495 (3.173)	5.448* (3.209)
Constant	35.55*** (1.083)	62.38*** (7.993)	40.32*** (1.907)	77.98*** (14.53)	37.19*** (1.618)	59.14*** (12.24)	27.00*** (2.133)	43.00** (17.32)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
r2	0.00129	0.0767	0.00152	0.192	0.00895	0.0823	0.00494	0.167
r2_a	0.00065	0.0507	-0.00067	0.119	0.00754	0.0286	0.00247	0.0804
N	1569	1569	458	458	706	706	405	405

Supplementary Table 20: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the climate change belief, participants' incentivized guess of what percentage of climate scientists doubt that human activities are the main cause of global warming over the last decades. Treatment-Dummy Belief is a dummy variable indicating whether participants were randomly allocated to treatment *Belief Main* or *Belief Control*. The dummy variable takes the value of 1 if the participant was in treatment *Belief Main* and 0 if the participant was randomly assigned to the control condition. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Heterogeneity Party Affiliation: Demand

	Dependent Variable: Video Choice							
	Whole Sample		Republicans		Independents		Democrats	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment-Dummy Demand	-0.0174	-0.0180	0.0550	0.0809*	-0.0556	-0.0530	-0.0166	-0.0313
	(0.0254)	(0.0248)	(0.0472)	(0.0469)	(0.0375)	(0.0370)	(0.0474)	(0.0509)
Constant	0.515***	0.339***	0.600***	0.294	0.539***	0.111	0.387***	0.834***
	(0.0180)	(0.122)	(0.0331)	(0.246)	(0.0270)	(0.172)	(0.0335)	(0.308)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
r2	0.000303	0.0979	0.00322	0.170	0.00309	0.114	0.000293	0.125
r2_a	-0.000341	0.0722	0.000839	0.0871	0.00168	0.0621	-0.00210	0.0378
N	1553	1553	420	420	713	713	420	420

Supplementary Table 21: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy video choice, the participants' choice between a video that reflects the scientific consensus on climate change and another video that plays down the role of humans and provides slanted information. The dummy takes the value of 1 if the participants choose to watch the video downplaying climate change. Treatment-Dummy Demand is a dummy variable indicating whether participants were randomly allocated to treatment Demand Main or Demand Control. The dummy variable takes the value of 1 if the participant was in treatment Demand Main and 0 if the participant was randomly assigned to Demand Control. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Heterogeneity Party Affiliation: Behavior

	Dependent Variable: Donation Decision							
	Whole Sample		Republicans		Independents		Democrats	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Treatment-Dummy Behavior	0.0288	0.0210	0.0472	0.0492	0.0286	0.0249	0.00467	-0.0176
	(0.0251)	(0.0245)	(0.0489)	(0.0505)	(0.0370)	(0.0369)	(0.0459)	(0.0469)
Constant	0.411***	0.467***	0.515***	0.0231	0.400***	0.494***	0.332***	0.740***
	(0.0177)	(0.122)	(0.0354)	(0.239)	(0.0255)	(0.189)	(0.0327)	(0.252)
Controls	No	Yes	No	Yes	No	Yes	No	Yes
r2	0.000851	0.0924	0.00224	0.134	0.000840	0.0902	0.0000245	0.139
r2_a	0.000207	0.0666	-	0.0466	-	0.0374	-0.00234	0.0542
			0.000165		0.000565			
N	1555	1555	417	417	713	713	425	425

Supplementary Table 22: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy donation decision, it indicates whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Treatment-Dummy Behavior is a dummy variable indicating whether participants were randomly allocated to treatment Behavior or Demand Main. The dummy variable takes the value of 1 if the participant was in treatment

Behavior and 0 if the participant was randomly assigned to Demand Main. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Sample Split Age groups

		Heterogeneity Age: Belief									
		Dependent Variable: Climate Change Belief									
		Whole Sample		18 -24 years		25-39 years		40-59 years		>60 years	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treatment-Dummy Belief		-2.208	-1.810	1.084	-7.928	0.108	0.678	-5.800**	-5.763**	-1.330	-1.637
		(1.553)	(1.538)	(4.757)	(4.948)	(3.249)	(3.191)	(2.663)	(2.769)	(2.630)	(2.741)
Constant		35.55***	62.38***	37.50***	75.17***	39.89***	50.10***	35.05***	43.61***	31.53***	45.19*
		(1.083)	(7.993)	(3.103)	(20.69)	(2.300)	(15.20)	(1.939)	(15.70)	(1.779)	(23.48)
Controls		No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
r2		0.00129	0.0767	0.000272	0.295	0.00000277	0.167	0.00938	0.0980	0.000546	0.0818
r2_a		0.000650	0.0507	-0.00493	0.111	-0.00251	0.0738	0.00740	0.0201	-0.00158	0.00358
N		1569	1569	194	194	400	400	504	504	471	471

Supplementary Table 23: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the climate change belief, participants' incentivized guess of what percentage of climate scientists doubt that human activities are the main cause of global warming over the last decades. Treatment-Dummy Belief is a dummy variable indicating whether participants were randomly allocated to treatment *Belief Main* or *Belief Control*. The dummy variable takes the value of 1 if the participant was in treatment *Belief Main* and 0 if the participant was randomly assigned to the control condition. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Heterogeneity Age: Demand

	Dependent Variable: Video Choice									
	Whole Sample		18-24 years		25-39 years		40-59 years		>60 years	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treatment-Dummy Demand	-0.0174	-0.0180	0.00261	-0.0803	-0.104**	-0.105*	0.0280	0.0305	-0.00904	-0.0219
	(0.0254)	(0.0248)	(0.0756)	(0.0898)	(0.0519)	(0.0541)	(0.0447)	(0.0455)	(0.0441)	(0.0418)
Constant	0.515***	0.339***	0.444***	0.215	0.508***	-0.0446	0.516***	0.598***	0.544***	0.583*
	(0.0180)	(0.122)	(0.0527)	(0.332)	(0.0371)	(0.323)	(0.0317)	(0.230)	(0.0314)	(0.299)
Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
r2	0.000303	0.0979	0.00000691	0.228	0.0109	0.144	0.000787	0.111	0.0000821	0.231
r2_a	0.000341	0.0722	-0.00577	0.00228	0.00815	0.0386	-0.00122	0.0330	-0.00188	0.165
N	1553	1553	175	175	366	366	500	500	512	512

Supplementary Table 24: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy video choice, the participants' choice between a video that reflects the scientific consensus on climate change and another video that plays down the role of humans and provides slanted information. The dummy takes the value of 1 if the participants choose to watch the video downplaying climate change. Treatment-Dummy Demand is a dummy variable indicating whether participants were randomly allocated to treatment Demand Main or Demand Control. The dummy variable takes the value of 1 if the participant was in treatment Demand Main and 0 if the participant was randomly assigned to Demand Control. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

Heterogeneity Age: Behavior

	Dependent Variable: Donation Decision									
	Whole Sample		18-24 years		25-39 years		40-59 years		>60 years	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
Treatment-Dummy Behavior	0.0288	0.0210	0.0941	0.156*	0.0389	0.00524	0.000836	0.0224	0.0308	0.000388
	(0.0251)	(0.0245)	(0.0707)	(0.0793)	(0.0516)	(0.0525)	(0.0436)	(0.0446)	(0.0447)	(0.0439)
Constant	0.411***	0.467***	0.259***	-0.107	0.404***	0.888***	0.432***	0.764***	0.446***	0.757***
	(0.0177)	(0.122)	(0.0478)	(0.365)	(0.0364)	(0.247)	(0.0314)	(0.249)	(0.0309)	(0.263)
Controls	No	Yes	No	Yes	No	Yes	No	Yes	No	Yes
r2	0.000851	0.0924	0.0104	0.272	0.00155	0.194	0.000000711	0.101	0.000955	0.221
r2_a	0.000207	0.0666	0.00454	0.0468	-0.00118	0.0954	-0.00194	0.0254	-0.00106	0.153
N	1555	1555	170	170	368	368	518	518	499	499

Supplementary Table 25: OLS-Regression estimates, robust standard errors in parentheses. The dependent variable is the dummy donation decision, it indicates whether the participant chose to take away the money from the donation or not. The dummy variable takes the value of 1 if the participant kept the money for themselves. Treatment-Dummy Behavior is a dummy variable indicating whether participants were randomly allocated to treatment Behavior or Demand Main. The dummy variable takes the value of 1 if the participant was in treatment Behavior and 0 if the participant was randomly assigned to Demand Main. Controls include dummies for age groups, sex, education, income, state and area of residence, post-materialism, self-placement on a left-right political spectrum, and party affiliation. * (p<0.10), ** (p<0.05), *** (p<0.01)

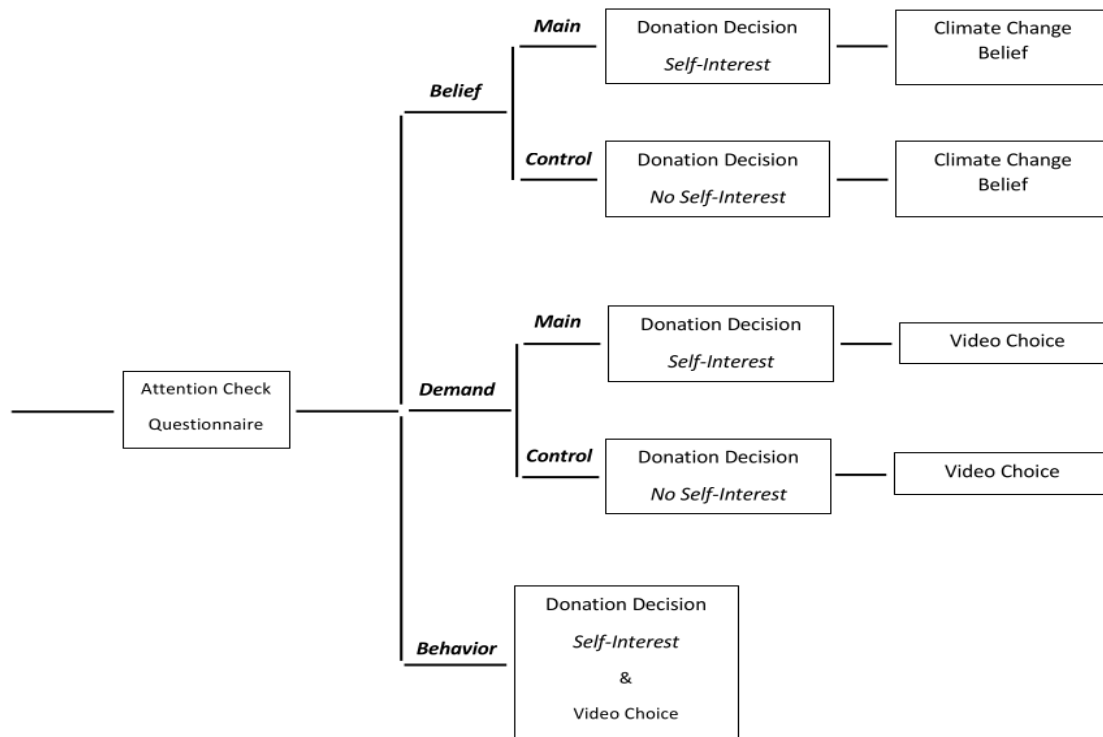
Quantile Regression

Quantile Regression: Climate Change Beliefs

	Dependent Variable: Climate Change Belief		
	25th	Median	75th
Treatment-Dummy Belief	-2**	-5**	-2
	(0.944)	(2.490)	(3.555)
Constant	10***	25***	56***
	(0.667)	(2.134)	(2.002)
N	1569	1569	1569

Supplementary Table 26: Quantile Regression estimates (first quartile, median, third quartile), robust standard errors in parentheses. The dependent variable is the climate change belief, participants' incentivized guess of what percentage of climate scientists doubt that human activities are the main cause of global warming over the last decades. Treatment-Dummy Belief is a dummy variable indicating whether participants were randomly allocated to treatment *Belief Main* or *Belief Control*. The dummy variable takes the value of 1 if the participant was in treatment *Belief Main* and 0 if the participant was randomly assigned to the control condition. * ($p < 0.10$), ** ($p < 0.05$), *** ($p < 0.01$)

Experimental Design



Supplementary Figure 4: The figure shows our experimental design. After passing an attention check and answering a short questionnaire, participants will be randomly assigned to one of five treatment conditions.

Wording Attention Check

Participants have to give a prespecified answer to a trivial question. We explain to participants that individuals who click through instructions without reading them are a problem for us. To ensure that they read the questions carefully, we ask them to answer "Very interested" and "I've never heard of it" to a question. The exact wording of this question is:

Based on the text you read above, what have you been asked to answer to the following question: How interested are you in Game of Thrones?

Participants now see four response options, two of which are the prespecified ones. Respondents are only allowed to participate if they give the correct answers.

Payments

The exact payment formula in our belief question is:

$$\text{payment} = \max\{0; 4 - 40\left(\frac{\text{guess}}{100} - \text{true value}\right)^2\}$$

Where the true value is 0.013 - meaning 1.3 % of the surveyed climate scientists stated that human activities are not the main driver of climate change.

Wording Video Choice

The video choice will be elicited as follows.

“Which of the following videos do you want to watch?”

- What they Haven’t told AdYou about Climate Change

Since time immemorial, our climate has been and will always be changing. The video explains why “climate change”; far from being a recent human-caused disaster, is, for a myriad of complex reasons, a fact of life on Planet Earth.

- Causes and Effects of Climate Change
 - What causes climate change (also known as global warming)? And what are the effects of climate change? Learn the human impact and consequences of climate change for the environment, and our lives.

Debriefing Statement

The debriefing reads:

“The Current scientific consensus on climate change:

- The current warming is happening at a rate not seen in the past 10,000 years.
- The influence of human activity on the warming of the climate system has evolved from theory to established fact

Sources: NASA Global Climate Change, Intergovernmental Panel on Climate Change (IPCC)”

Power Analysis

We asked a small number of people to answer the belief about climate change question, the information demand and donation decision. Both, the climate change belief and the information demand question, were elicited without the context of a self-interested donation decision. However, there are several caveats to this approach: The size of the test sample (around 60 observations per variable) is very

small, making it quite likely that the standard deviation in our actual sample will be significantly smaller.

We flag and exclude participants that rushed through the survey. In detail, we measure the median time in each condition. Participants that finish the survey under one-third of the median time in their condition will not be used in our main analysis. This makes it a priori impossible to say how many participants will be in each sample. As a conservative approximation, we assume that about 5 % of participants will be dropped from every condition.

We use the mean and standard deviation of the small test sample plus a sample of 1,520 participants in our power analysis. We test each hypothesis using the participants of two conditions. Each condition has 800 respondents and we subtract the slowest participants for our main analysis. As we do not know the number of participants finishing the survey faster than one-third of the median, we assume it to be not more than 5 %. Using these numbers, we determine the smallest effect size we would be able to detect with 95 % power and an α -Level of 0.01, for our three main hypotheses separately (for details see the subsequent analysis). Power analysis was conducted using Stata. First, we look at the average treatment effect on the climate change belief (Climate Change Belief – test sample: Mean = 27.31; Std. Dev. = 19.64.). We estimate that an impact sample of 1,520 participants would provide over 95 % power to detect an effect size of $d = 4.257$, i.e. a 15.64 % increase in the belief that more scientists doubt that humans caused recent climate change. Second, we consider the effect on the video choice, i.e. the demand for biased information (Video Choice – test sample: Mean = 0.21; Std. Dev.= 0.41). We estimate that an impact sample of 1,520 participants would provide over 95 % power to detect an effect size of $d = 0.089$. Third, we look at the donation decision, i.e. the comparison between *Demand Main* and *Behavior* (Donation Decision – test sample: Mean = 0.64; Std. Dev. = 0.49). An impact size of 1,520 participants would provide 95 % power to detect an effect size of $d=0.106$. We conclude that our study will detect useful effects and that our sample is sufficient to test the below-stated hypotheses. Before outlining our planned analyses, we first discuss our measures.

Data of Power Analysis

To run our power analysis, we asked a small test sample to answer our main outcome variables. Importantly, this is not a pre-test as the questions were asked without the context of the experiment. The sole purpose was to provide a basis for our power analysis. We will upload the data and also upload the instructions of our Qualtrics Survey. Both can be found under the following Link:

https://osf.io/etsf2/?view_only=08631f7d777140a0a6167e846cf567cd

Details on Control Variables

We divide age into the following four intervals (18 - 24, 25 - 39, 40 - 59, > 60), and include dummies for each interval in our analysis. Sex is a binary variable indicating whether a person was identified as male or female at birth. Education is an ordinal variable with four categories from "No high school graduation" to "Graduate or

professional degree". In our Analysis, we include dummies for each category. Income is an ordinal variable that captures the annual household income before taxes. It contains 10 categories from "Below 10,000" to "More than 100,000". In the Analysis parts 1 to 3, we include dummies for each category. We also elicit income as a continuous variable by asking participants to state their exact income within the chosen income category. For Analysis part 4 (heterogeneity), we create a dummy variable low income based on the median income of American households (below 70 000 and above). Low income equals 0 indicates that the participant has an income above the median income and 1 indicates that the household income of a participant is below the median. And construct dummies for the three bins in our binning estimator. We also collect data on the location of the participants. State of residence is an ordinal variable with a category for each state. We divide all states into four regions (Northeast, Midwest, South, West) and include a dummy for each region in our regression. Further, we ask participants to describe their area of residence. The area is a categorical variable with 6 variables: Farm, Village, Smaller City (more than 5.000 people), Suburbs, City (more than 100.000 people), Large city (more than 1 million). We include a dummy for each category in our regressions below. We elicit post-materialism using the 4-item post-materialism index from The European Values Study (EVS). We include a dummy for each category (Materialist, Mixed, Post-materialist). Party preference indicates the party that the respondents identify with. It is a variable containing seven categories from "Strong Republican" to "Strong Democrat". We further ask participants to self-place them on a 10-point scale from "Very liberal" to "Very conservative" and include dummies for each category in our analysis.

Design Table

Question	Hypothesis	Sampling plan (e.g. power analysis)	Analysis Plan	Interpretation given to different outcomes
1. Does motivated cognition shape beliefs about climate change?	<p>Participants that are given the opportunity to behave selfishly at the expense of the environment distort their beliefs about climate change in a self-serving way.</p> <p>Compared to <i>Belief Control</i>, participants in <i>Belief Main</i>, on average, state that skepticism among experts is significantly more common.</p>	<p>Power analyses suggested that our planned sample size for this comparison (N = 1,520) would be sufficient to achieve 95% power to detect an effect size of $d = 4.257$.</p>	<p>We will run two OLS-regressions - one without and one with control variables. The dependent variable is participants' climate change beliefs. Our variable of interest is a dummy variable indicating whether participants were randomly allocated to <i>Belief Main</i> or <i>Belief Control</i>.</p> <p>The controls added to the OLS regression are dummies for age groups, sex, education, income, state and area of residence, self-</p>	<p>A significant positive treatment effect will be interpreted as causal evidence that motivated cognition shapes beliefs about climate change</p>

			placement on a left-right political spectrum and party affiliation.	
2. Does motivated cognition influence how people seek out information about climate change?	<p>Participants that are given the opportunity to behave selfishly at the expense of the environment seek out information that justifies their behavior.</p> <p>Participants in <i>Demand Main</i> choose to watch a clip downplaying climate change significantly more often than participants in the control group.</p>	Power analyses suggested that our planned sample size for this comparison (N = 1,520) would be sufficient to achieve 95% power to detect an effect size of $d = 0.089$	<p>We will run two OLS regressions - one without and one with control variables - plus a probit regression. The dependent variable is the participant's video choice. Our variable of interest is a dummy variable indicating whether participants were randomly allocated to <i>Demand Main</i> or <i>Demand Control</i>.</p> <p>Controls are identical to the ones above.</p>	A significant positive treatment effect will be interpreted as causal evidence that motivated cognition affects peoples' demand for slanted information.
3. Do environmentally harmful actions increase in number when people anticipate the opportunity to justify their behavior?	<p>Participants that are aware that they can justify their actions by choosing slanted information are more likely to behave selfishly.</p> <p>Compared to participants in <i>Demand Main</i>, participants in <i>Behavior</i> choose the selfish and for the environment harmful action more frequently.</p>	Power analyses suggested that our planned sample size for this comparison (N = 1,520) would be sufficient to achieve 95% power to detect an effect size of $d = 0.106$	<p>We will run two OLS-regressions - one without and one with control variables - plus a probit regression.</p> <p>The dependent variable is the participant's donation decision. Our variable of interest is a dummy variable indicating whether participants were randomly allocated to <i>Behavior</i> or <i>Demand Main</i>.</p> <p>Controls are identical to the ones above.</p>	A significant positive treatment effect will be interpreted as causal evidence that the knowledge of an opportunity to justify selfish actions increases the likelihood of environmentally harmful behavior.