Appendices

Contents

A Media coverage of disruptive actions

Study 1, Denmark: Nødbremsen road blockades

Table A1 lists all known instances of media coverage for the highway exit blockade used in Study 1. It took place on November 13th, 2023 and was organized by new climate movement Nødbremsen. In addition, Table A2 documents media coverage for the other road blockades in the action series. Blockades on three more dates received coverage; an additional blockade on November 15th appears not to have been covered by any outlets. These lists were compiled by looking for relevant keywords in the Nordic media database maintained by Infomedia as well as in Mediestream, a service for searching the Royal Danish Library's digital media collections of newspapers, radio and TV programs. I also relied on the movement's own media monitoring, having access to its list of media features.

Table A1: Media coverage of the Nødbremsen highway exit blockade in Avedøre on November 13th 2023.

Outlet	Date	Headline (with link)
Berlingske	13/11/2023	Climate activists block a motorway in the capital
DR	13/11/2023	Highway exit in Copenhagen blocked by climate activists
Ekstra Bladet	13/11/2023	Drama: Climate activists blocked the motorway exit
Jyllands-Posten	13/11/2023	Protesters block Monday traffic and warn: We are escalating
Nyheder.dk	13/11/2023	Drama on the highway
TV2 Kosmopol	13/11/2023	Climate activists blocked morning traffic **(treatment article)**
TV2	13/11/2023	Motorway exit blocked - created queues in morning traffic
TV2 News	13/11/2023	Newscast - no URL available

Table A2: Media coverage of three further road blockades by Nødbremsen as part of the same series of actions. The TV2 entry is two features on a live-updated "short news" page.

Outlet	Date	Headline (with link)
Boosted Magazine	23/11/2023	Climate activists block traffic for electric cars
BT	29/11/2023	Police were present on the highway: Five arrested
Ekstra Bladet	29/11/2023	Huge drama in morning traffic: Demonstrators carried away by the police
DR	23/11/2023	Climate demonstration stopped in North Zealand: Created traffic jam
KBH.dk	23/11/2023	Climate activists paralyze traffic in Hellerup
Nyheder.dk	29/11/2023	Dragged away by officers
Presse-fotos.dk	23/11/2023	Climate activists block traffic arteries in the capital
Sjællandske Nyheder	23/11/2023	Activists block the road
Se og Hør	29/11/2023	Massive queue formation: Activists block motorway exit
Sjællandske Nyheder	01/12/2023	Nine people arrested: Police had to carry protesters away
TV2 (brief news feed)	29/11/2013	Five arrested after climate demonstration / Highway blocked by protesters

A few observations stand out. First, the actions as a whole received fairly broad coverage, generating 19 news features. The protest on November 13th had the widest reach. It was covered in the online editions of four out of the five most-read Danish daily newspapers (Jyllands-Posten, Berlingske, and the tabloids B.T. and Ekstra Bladet; Goos 2022) as well as by public service broadcasters DR and TV2. For comparison, that year's largest environmental demonstration, a march for biodiversity with over 5,000 participants, was reported on by only one of the five major newspapers (Politiken) and DR.

Second, media features differ in whether the headline mentioned climate change (9 out of 18 headlines), referred to activism without mentioning the issue (5), or did neither (4). Third, from a close reading of the articles and associated videos, I concluded that all but one were neutral in tone. This can be tied back to the fact that Denmark has a very non-polarized media landscape (Pew Research Center, 2018). The exception was Boosted Magazine, an online car magazine. Its article on the November 23rd blockade noted, e.g., that the "angry environmental activists" had "learned nothing from" being carried away by police a week earlier.

Many articles followed the same structure, covering first the events of the day (e.g. what happened, which road was blocked, when did police arrive and when did traffic resume), and then the movement and motivation behind the action. Hand-coding the content of the articles showed that on average, 37% of content was related to the message of the action (such as descriptions of the protesters' demands, quotes by activists or snippets of the organization's press release). All features mentioned climate change and/or the government's plan to build and expand highways as the focus of the action. This contrasts with findings by (Sobieraj, 2011, p. 72) that articles covering protests around US presidential campaigns rarely reproduce their main message.

Study 2, UK: Just Stop Oil snooker interruption

Next, I analyze media coverage of the action used in Study 2: Just Stop Oil's disruption of the World Snooker Championships on April 17th, 2023. Here, I build on existing research by Scheuch et al. (2024) on media coverage of legal and illegal protests by disruptive movements. They collected news articles by the BBC and 14 newspapers in the UK, covering actions by Extinction Rebellion, Just Stop Oil and Animal Rising.

Table A3: Selection of newspaper articles covering the Just Stop Oil snooker disruption on April 17th 2023. Building on research by Scheuch et al. (2024).

Outlet	Date	Headline (with link)
BBC	17/4/2023	World Snooker Championship 2023: Play stopped by Just Stop Oil protesters at the Crucible
Express	18/4/2023	Just Stop Oil protestors crash World Snooker match and cover table in orange powder
Guardian	17/4/2023	World snooker championship disrupted by Just Stop Oil protesters in Sheffield
Herald	18/4/2023	Student and ex-museum worker in custody after World Snooker Championship protest
ITV	17/4/2023	Two arrested after World Snooker Championship match disrupted by Just Stop Oil protest
Mail	17/4/2023	Two arrests after Just Stop Oil protest disrupts World Snooker Championship
Metro	17/4/2023	Protester jumps on table during World Snooker Championship match at the Crucible
Mirror	17/4/2023	World Snooker Championship protestor storms table and covers it in orange powder during match
Sky news	17/4/2023	Just Stop Oil protesters arrested after halting play at World Snooker Championship **(treatment article)**
Star	17/4/2023	World Snooker Championships chaos as protester jumps on table and throws orange powder
Sun	17/4/2023	Play suspended at World Snooker Championships as yob climbs on table at Crucible and covers it with orange powder
Telegraph	17/4/2023	Just Stop Oil protester storms table at World Snooker Championship
The independent	18/4/2023	What was the snooker protest about? Video shows Just Stop Oil incident
Times	17/4/2023	Just Stop Oil protester throws orange dye over table at world championship

I extend their dataset to include two more major non-newspaper outlets (Sky news and ITV), and found that the snooker protest was covered by 16 of the 17 studied outlets, in a total of 49 articles. Table A3 shows a selection of these, only including features that reported on the protest as a current event. Typically, the first article to appear in an outlet was of this kind; later articles

tended to describe reactions to the protest by other actors.[1] While these could still have effects on the public's climate attitudes, here I am mainly interested in direct news reporting on disruptive protests.

In this selection of 14 articles, nine headlines mentioned Just Stop Oil, four referred to activism in generic terms, and one did neither. Two articles (in the Daily Star and Sun) had an explicitly pejorative tone, dedicating space to negative reactions from the snooker tournament audience and online commenters, and calling the protest "shocking" or "bizzarre". Two more articles (in the Express and Independent) also cited disapproving reactions while taking a neutral tone otherwise. Compared to coverage of the Danish road blockade, outlets tended to give far more space to logistics than to the motivation behind the action—in part because the action was often initially reported on from a sports angle. After hand-coding the content of the articles, I found that on average just 16% of article content was related to the message of the action. All but one of the articles mentioned Just Stop Oil as the movement behind the action.

[1] The exception to this was the Sunday Post, which only brought an article on former World Snooker chairman Barry Hearn's reaction to the protest.

B Fielding times and representativeness

For Study 1, wave 1 was fielded via YouGov among 600 Danes between November 8th and 10th of 2023. Nødbremsen's road blockades took place from November 13th till December 1st. A string of blockades had been announced a week ahead by the organization, but without dates or locations; social ties to movement members allowed me access to the date of the first and last protests. The waves were timed on either side of the demonstrations so that we might have the option of studying the real-world effect of the actions without any treatment in the survey, should media coverage of the actions have been very extensive. In the end, coverage was not widespread enough to assume that most respondents would have heard of the actions independently (as confirmed by the results of the study's manipulation check). I therefore opted for a survey experiment design with a media treatment in wave 2. Wave 2 was fielded one month after wave 1, with respondents being re-contacted on December 12th and being sent regular reminders until the survey was closed on January 3rd, 2024 (retention rate: 84%).[2]

For Study 2, wave 1 was collected via Prolific among 898 UK respondents between April 6th and 8th of 2024. The study was advertised as being about "current affairs in Britain". Respondents were told that a requirement for payment would be to complete both study waves. Wave 2 was collected in a one-week period starting on April 19th, and respondents were sent regular reminders to participate (retention rate: 94%). I chose these fielding periods and timings because Prolific requires researchers to approve and pay participants within three weeks of completing a study. Therefore, in order to make approval of wave 1 responses conditional on completion of wave 2, I fielded wave 2 two weeks after wave 1, and required respondents to complete wave 2 within one week of its launch in order to qualify for payment for both waves.

In both studies, respondents were recruited from online pools. In Study 1, data collection in wave 1 was quota-controlled by YouGov to reflect the Danish general population in terms of gender, age, geographical regions and education. The exception to this was an oversample of residents of the Greater Capital Region around Copenhagen, so they make up about half of the sample instead of a representative one-third.[3] Appendix G reports on analyses that weight respondents in order to estimate effects in the full population.

In Study 2, data collection in wave 1 was quota-controlled by Prolific to reflect the UK general population in terms of gender, age (brackets 18-24, 25-34, 35-44, 45-54, 55-64, 65-74 and 74+), and ethnicity. Quota management was carried out as matrix sampling on gender, age brackets and a five-category ethnicity variable.

[2]This is a minor deviation from the pre-analysis plan, which specified that wave 2 would close two weeks after fielding. This decision was made while wave 2 was in the field, before seeing response rates or any other data, in order to maximize the retention rate.

[3]The oversample in wave 1 was originally included in case the appropriate design would turn out to be an interrupted time series rather than an experiment, in order to perform subgroup analyses on Capital Region residents. Because the actions happened in this region, these participants were more likely to have been aware of them, but perhaps also more likely to have experienced backlash–though analyses of the survey experiment do not confirm the latter.

C Treatment

The following sections show the article excerpts that were used as treatments in Study 1 (Denmark) and Study 2 (UK). In order to keep the article length reasonable and to avoid participant dropout, I left out part of the articles. In Study 1, this was a second section mentioning that further actions were planned, described a different recent action where the movement interrupted an opera, and a brief further justification by the movement for their tactics. In Study 2, I left out content further describing the logistics of what happened (when play resumed, when the pool table would be reclothed) as well as the surprised reaction of the BBC sports commentator on duty.

Introduction page

Study 1, Denmark

Before you answer the questionnaire, we would like to ask you to read a short news article that was recently published on TV2 Kosmopol's website. The article is about the political movement Nødbremsen, which in recent weeks has disrupted traffic around Copenhagen. Later in the questionnaire, we will ask you questions about the content of the article.

Study 2, UK

Before you answer the rest of the survey, we would like you to read a short excerpt from a Sky News article. Please take a moment to read it carefully. Later on in the survey, we will ask you some questions about the content of the article.

Article page

Study 1, Denmark

kosmopol

Climate activists blocked morning traffic

Five activists have been arrested, says Copenhagen West Police

Marie Kjempff, journalist, TV2 Kosmopol

On Monday morning, climate activists blocked motorway exit 21 Avedøre on the E20 motorway in protest against the expansion of the Danish motorway network. Climate campaign Nødbremsen has announced this information on its website.

Copenhagen West Police removed and arrested five protesters around 9:20 a.m., says warden Brian Holm to TV 2 Kosmopol. - The traffic is now running as it should, says the warden. Drivers,

who have been waiting for more than 40 minutes, can now move ahead.

The protesters carried orange banners with the text ‘Drop the new motorways’. - We, as a climate campaign, are escalating our methods because the government is knowingly escalating the climate collapse we are in, among other things by building these 15 new motorways, as part of the Agreement on Infrastructure Plan 2035, said participant in Nødbremsen, Laura Krarup Frandsen, to TV 2 earlier on Monday.

You can also view the article in its full form via this link (opens in a new window): `https://shorturl.at/nwGX4`

Study 2, UK

sky news

Just Stop Oil protesters arrested after halting play at World Snooker Championship

Two Just Stop Oil protesters have forced a stoppage in play at the World Snooker Championship in Sheffield.

The duo invaded the arena shortly after play began early in the evening session with a man interrupting the match between Robert Milkins and Joe Perry by jumping on the table where he released a packet of orange dye.

A female protester was stopped from attacking the match between Mark Allen and Fan Zhengyi on table two by the quick-thinking response of referee Olivier Marteel.

Play was immediately suspended as staff brought vacuum cleaners into the arena.

A 52-year-old man and a 30-year-old woman were arrested on suspicion of criminal damage, South Yorkshire Police said.

Both are in custody. The protest group's official Twitter page posted a video of the incident saying they are "demanding that the government immediately stop all new UK fossil fuel projects and are calling on UK sporting institutions to step into in civil resistance against the government's genocidal policies."

This article was originally published by Sky News. You can find the full version **here**.

D Manipulation check

Treated group version

Study 1, Denmark

The political movement Nødbremsen has disrupted morning traffic in and around Copenhagen in recent weeks. What political issue were the activists trying to draw attention to? [short open-ended answer plus "don't know/can't remember" checkbox]

Study 2, UK

At the beginning of this survey, you read about a political movement disrupting the World Snooker Championship. What was the name of the movement that did this action? (Note: this is not an attention check and approval of your submission does not depend on your answer) [short open-ended answer]

[shown only if answer to the above is not "Just Stop Oil"] What is the main political demand put forward by the movement? [short open-ended answer]

Control group version

Study 1, Denmark

The political movement Nødbremsen has disrupted morning traffic in and around Copenhagen in recent weeks. Some Danes have heard about these actions through the media, but many have not. Have you heard about these actions? [Yes - No - Don't know]

[shown only if "Yes"] Did you catch what political issue the activists were trying to bring attention to? If not, simply answer with "Don't know/can't remember". [short open-ended answer plus "don't know/can't remember" checkbox]

Study 2, UK

Last year, a political movement disrupted the World Snooker Championship. Some people may have heard about this action through the media, but many others have not. Have you heard something about this action?

[shown only if "Yes"] Do you know the name of the political movement that did this action? If not, simply answer with "Don't know".

[shown only if answer is not "Just Stop Oil"] Do you happen to know what is the main political demand put forward by the movement? If not, simply answer with "Don't know".

Coding for correctness

Answers were coded for correctness by coders who were blind to condition. In Study 1, answers were coded as correct if they mentioned either climate change or highways. In Study 2, they were labelled as correct if respondent either remembered the movement's name or something very close to it (e.g. "Stop oil") or if they correctly identified stopping new fossil fuel projects as its demand (including answers such as "reduce the use of fossil fuels" but not answers that mention fossil fuels or climate change with no further explanation).

E Outcomes: wording and descriptives

Salience
What do you think are the three most important problems Denmark/the UK is facing right now? [Three short open-ended answers]

A respondent was coded as 1 if they mentioned any of the following keywords in their top three: climate, environment, nature, biodiversity, or pollution. In the Danish sample, I added oxygen depletion ("iltsvind", meaning low oxygen levels in seawater due to pollution, a much-debated environmental topic in Denmark at the time). In the UK sample, I added "warming". The rule would also capture longer expressions such as "environmental issues" and "global warmning". These keyword lists were verified to cover all cases of climate- or environment-related answers by checking the first 300 entries from wave 1 in both studies.

Highway building opposition (Denmark)
Do you feel positively or negatively about the following measures? The government's plan to build new motorways across the country [scale from 1 (Very negative) to 5 (Very positive), reverse coded]

New oil opposition (UK)
Do you feel positively or negatively about the following measures? A stop to all new UK oil and gas projects [scale from 1 (Very negative) to 5 (Very positive)]

Government dissatisfaction
How much do you agree or disagree with the following statements? The government is doing a lot to tackle climate change [scale from 1 (Completely disagree) to 7 (Completely agree), reverse coded]

Concern
How much do you agree or disagree with the following statements?

- Climate change is one of the greatest threats facing humanity.
- I worry about the effects of climate change in my lifetime in this country.

[scale from 1 (Completely disagree) to 7 (Completely agree), averaged]

Behavioral intentions
Here is a list of things one can do to encourage politicians to do more for the climate. How likely are you personally to do each of them within the next year?

- Donate to Danish Society for Nature Conservation or similar
- Go on a protest march

[scale from 1 (Very unlikely) to 7 (Very likely), averaged]

Secondary outcomes: climate policy support and fossil fuel regulations
Do you feel positively or negatively about the following measures?

- A tax on high-climate-impact products like airplane tickets or beef
- A national reduction target for the climate impact of citizens' combined consumption
- Regulations making it more difficult to profit from fossil fuel investments (Study 2 only)

[scale from 1 (Very negative) to 5 (Very positive), reverse coded]

These items were asked in the same matrix multiple-choice question as Highway building or New oil opposition. They are not included in the main analyses, because no hypotheses were pre-registered for these items. The first two items were combined into a scale for climate policy support, whereas the third item was analyzed separately.

Figures A1 and A2 show the distributions of responses along the scale of each outcome variable in Study 1 and Study 2. I include the variables that were not part of the pre-registered hypotheses– namely, support for climate policies other than the ones targeted by the protests, and (in Study 2) support for regulations making it more difficult to profit from fossil fuel investments.

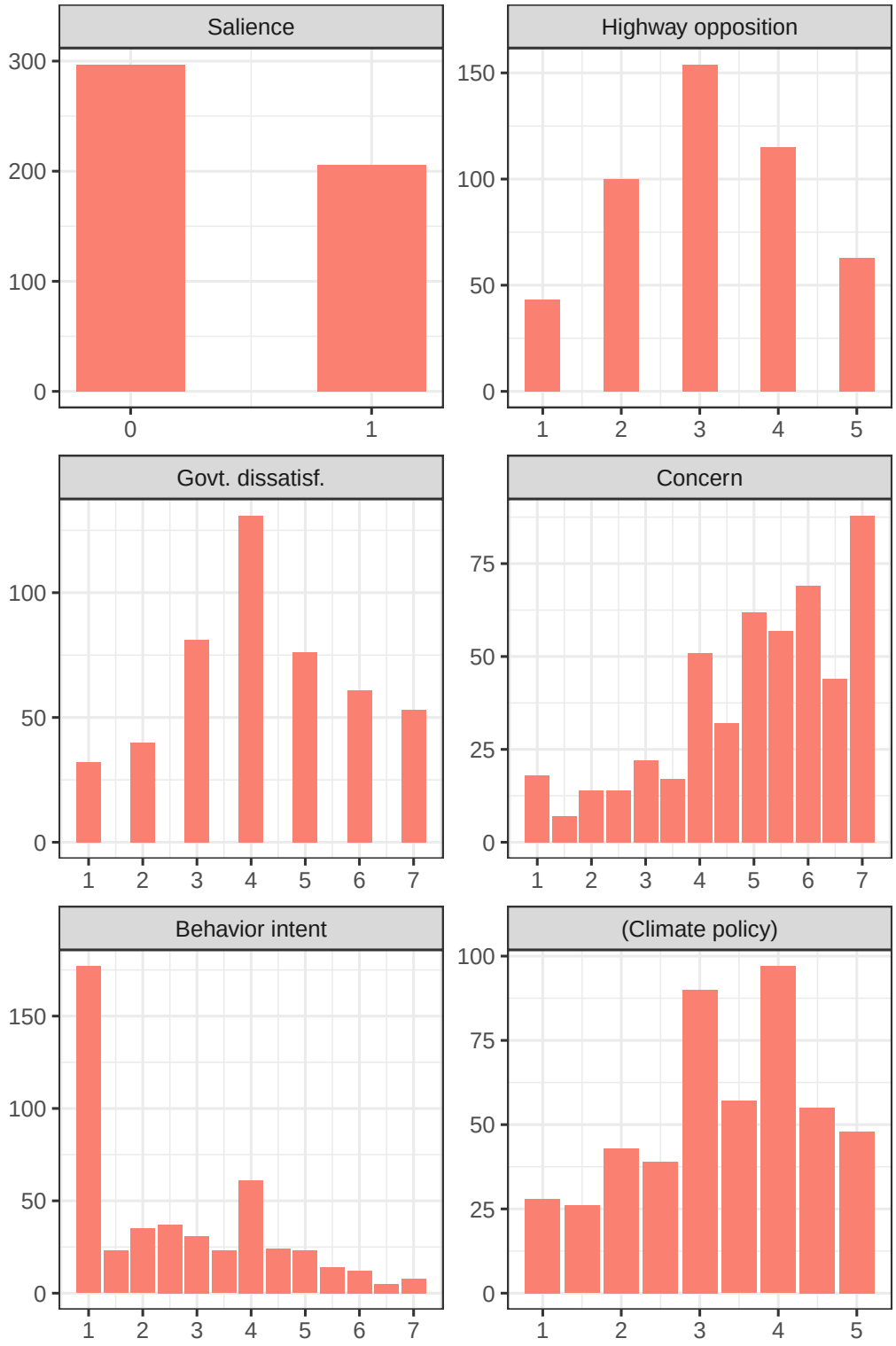

Figure A1: Pre-treatment (wave 1) distributions of responses to all outcome variables in Study 1.

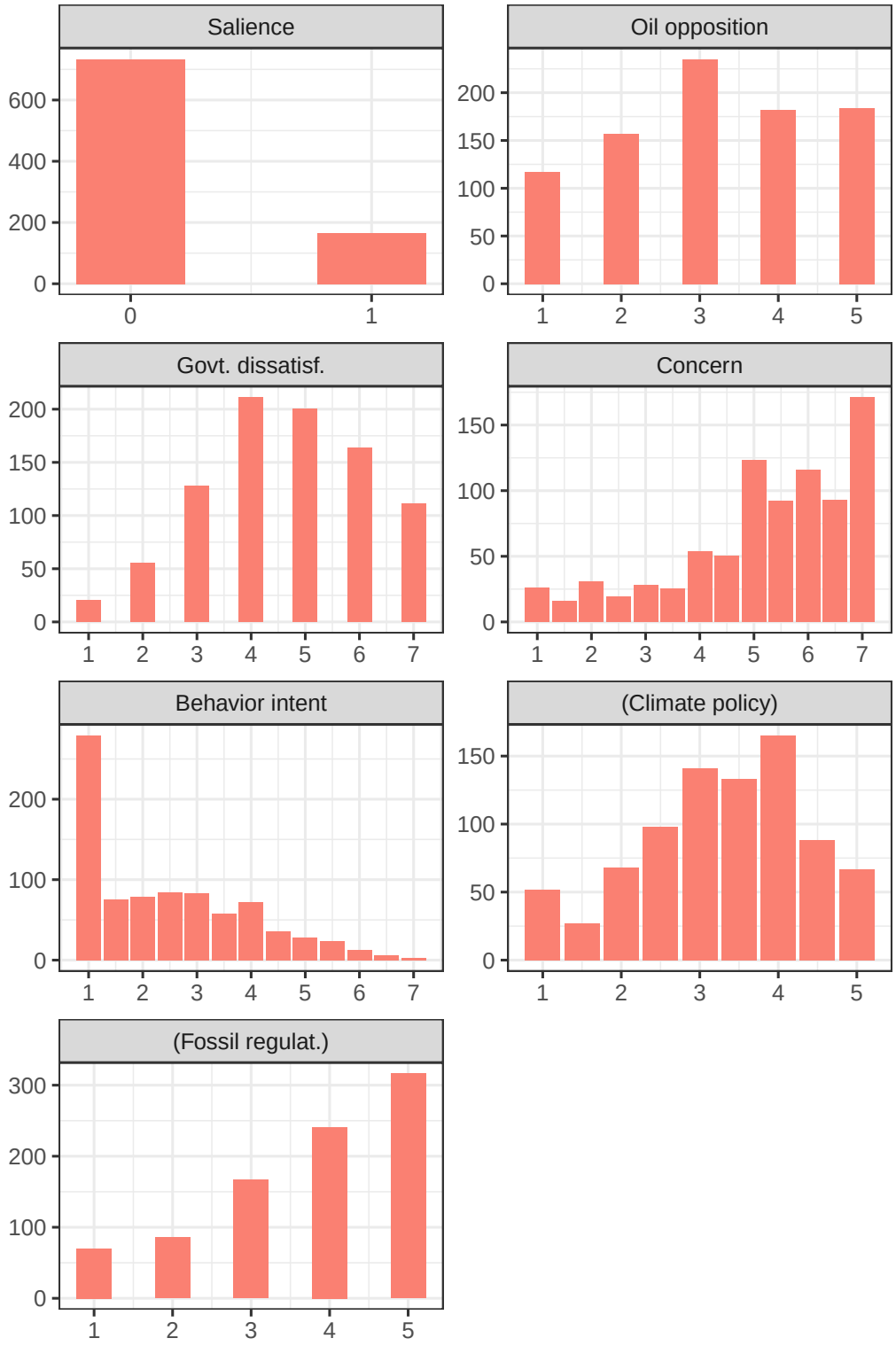

Figure A2: Pre-treatment (wave 1) distributions of responses to all outcome variables in Study 2.

F Results tables and Bayes factors

The tables below show mean outcomes of the control group and treated group in the pre-treatment (wave 1), post-treatment (wave 2), plus their difference (wave 2 - wave 1), on the original scales. The next column shows the difference-in-differences (DiD, treated group difference - control group difference); this is identical to the coefficient on the treatment in a model regressing first-differenced outcomes on treatment status. The last columns show the standard error, p-value and Bayes factor of this coefficient, and the number of observations on which it is based.

The Bayes factor is provided here as an alternative to null hypothesis significance testing. It shows the relative support in the data for H_a (a difference in the first-differences between the treated and control group) versus the null hypothesis H_0 (no difference). If the Bayes factor is much larger than one, then H_a is clearly preferred. If it is much smaller than one, then H_0 is clearly preferred (Hoijtink et al., 2019).

As we can see, there is strong evidence for a difference between treated and control respondents with respect to salience. With respect to support for the protests' messages (highway/oil opposition), Study 1 shows weak evidence for the null of no difference, while Study 2 shows weak evidence for a difference. There is moderate to strong evidence for the null hypothesis with respect to the other outcomes.

Table A4: Pre- and post-treatment means for the control and treated groups (Study 1), and hypothesis tests of their difference-in-differences, on the original outcome scales.

	Control			Treated			Diff-in-diff				
	Pre	Post	Diff.	Pre	Post	Diff.	DiD	SE	p-val.	Bayes	n
Salience	0.44	0.47	0.03	0.38	0.56	0.17	0.14	0.05	0.002	10.19	503
Highway opp.	3.17	3.12	-0.05	3.06	2.87	-0.20	-0.15	0.08	0.064	0.55	463
Govt. dissatisf.	4.21	4.20	-0.01	4.23	4.07	-0.15	-0.14	0.14	0.309	0.17	467
Concern	5.12	5.06	-0.06	5.00	5.02	0.02	0.08	0.10	0.448	0.13	495
Behavior intent	2.76	2.79	0.03	2.54	2.48	-0.06	-0.09	0.12	0.457	0.13	473
(Climate policy)	3.33	3.34	0.01	3.27	3.26	-0.02	-0.02	0.06	0.711	0.11	483

Table A5: Pre- and post-treatment means for the control and treated groups (Study 2), and hypothesis tests of their difference-in-differences, on the original outcome scales.

	Control			Treated			Diff-in-diff				
	Pre	Post	Diff.	Pre	Post	Diff.	DiD	SE	p-val.	Bayes	n
Salience	0.17	0.28	0.11	0.19	0.40	0.21	0.10	0.03	0.001	17.35	846
Oil opposition	3.07	3.20	0.14	3.30	3.30	0.00	-0.14	0.06	0.016	1.38	814
Govt. dissatisf.	4.61	4.57	-0.04	4.64	4.66	0.01	0.06	0.08	0.468	0.10	825
Concern	5.12	5.13	0.01	5.29	5.30	0.01	-0.00	0.05	0.949	0.08	844
Behavior intent	2.45	2.49	0.04	2.48	2.43	-0.05	-0.09	0.06	0.140	0.22	840
(Climate policy)	3.24	3.27	0.04	3.33	3.36	0.03	-0.01	0.05	0.877	0.08	839
(Fossil regulat.)	3.66	3.77	0.11	3.83	3.87	0.03	-0.07	0.06	0.207	0.17	811

G Analyses using survey weights

Table A6: Effect of the climate disruption media treatment on climate attitudes, when using survey weights (Study 1 only). Dependent variables are first-differenced outcomes between wave 2 and wave 1 on their original scales.

	Dependent variable:				
	Salience	Highway opp.	Govt. dissat.	Concern	Behavior intent
	(1)	(2)	(3)	(4)	(5)
Treated	0.19^{***}	-0.17^{*}	-0.27	0.06	-0.14
	(0.05)	(0.08)	(0.14)	(0.10)	(0.12)
Observations	503	463	467	495	473
R^2	0.03	0.01	0.01	0.001	0.003
Adjusted R^2	0.03	0.01	0.01	-0.001	0.001
Note:					*p<0.05; **p<0.01; ***p<0.001

H Polarization and moderation analyses

Political orientation: measurement

Here, I describe how I categorized voting intention and ideology responses into political wings. In Study 1 (Denmark), I allocated respondents' voting intentions to wings according to the Danish bloc system. The party Moderaterne declares itself as bloc-less, but their voters are quite clearly mainstream right-wing (Stubager and Hansen, 2024); I therefore count them as right-wing here:

- **Left (36% of respondents):** Socialdemokratiet (13%), SF - Socialistisk Folkeparti (11%), Enhedslisten (8%), Radikale Venstre (2%), Alternativet (1%), Frie grønne (0%)
- **Right (38% of respondents):** Liberal Alliance (10%), Danmarksdemokraterne (6%), Det Konservative Folkeparti (6%), Moderaterne (5%), Dansk Folkeparti (5%), Venstre (5%), Nye Borgerlige (2%), KD - Kristendemokraterne (1%)

Another 26% of Danish respondents fall into an "undecided/other" category, which mostly captures respondents who are undecided (17%), would vote blank (3%), declined to answer (3%), and similar.

In Study 2 (UK), I allocated respondents' voting intentions to wings according to the following (pre-registered) classification:

- **Left (49% of respondents):** Labour (37%), Green Party (8%), Scottish National Party (3%), Sinn Féin (0%), Plaid Cymru (0%), Workers Party of Britain (0%), Social Democratic and Labour Party (0%)
- **Center (8% of respondents):** Liberal Democrats (7%), Alliance Party of Northern Ireland (1%), Alba Party (0%)
- **Right (21% of respondents):** Conservative Party (14%), Reform UK (7%), Democratic Unionist Party (0%)

In the UK sample, 22% of respondents fall into the "undecided/other" category, which also mostly captures respondents who are undecided (9%), would vote blank (7%), and similar.

Finally, I allocated Study 2 (UK) respondents to three ideological wings by their answer to a five-point, labeled ideology self-placement scale. Respondents who answered they were "Left" (14%) or "Leaning left" (30%) were bundled into the Left category; Respondents who answered they were "Right" (4%) or "Leaning right" (20%) were combined into the Right category. 32% of respondents labeled themselves as "Center".

Moderation by political orientation

Tables A7–A9 show results for models interacting the treatment with political orientation, using left-wing as the baseline. In Tables A7 (Study 1) and A8 (Study 2), political orientation is measured as voting intention. In Table A9 (Study 2 only), it is measured as left-right ideology self-placement.

Across all these analyses, the difference between effects on left-wing and right-wing participants is significant in only one case (out of 15 comparisons). The treatment has significantly different effects on left-wing and right-wing voters' dissatisfaction with government action in Study 2.

We can also compare left-wing participants to those with "undecided/other" or (for the UK) "center" orientations. Here, we only see a significant interaction effect on behavioral intentions in Study 1, were "undecided/other" participants are more negatively affected by the treatment.

Table A7: Models for Study 1 with interaction between disruption treatment and voting intention: left (baseline category), undecided/other or right. Dependent variables are first-differenced outcomes between wave 2 and wave 1 on their original scales.

	Dependent variable:				
	Salience	Highway opp.	Govt. dissat.	Concern	Behavior intent
	(1)	(2)	(3)	(4)	(5)
Treated	0.08	−0.13	−0.22	0.04	0.20
	(0.08)	(0.13)	(0.22)	(0.17)	(0.19)
Other	−0.20*	0.10	0.004	0.13	0.46*
	(0.08)	(0.15)	(0.26)	(0.19)	(0.21)
Right	−0.09	−0.21	−0.32	−0.05	0.22
	(0.07)	(0.13)	(0.22)	(0.17)	(0.19)
Treated:Other	0.19	−0.09	−0.40	0.05	−0.60*
	(0.12)	(0.21)	(0.36)	(0.27)	(0.30)
Treated:Right	0.05	0.01	0.47	0.06	−0.36
	(0.11)	(0.18)	(0.32)	(0.24)	(0.27)
Observations	503	463	467	495	473
R^2	0.03	0.03	0.02	0.01	0.01
Adjusted R^2	0.02	0.02	0.01	−0.01	0.002

Note: *p<0.05; **p<0.01; ***p<0.001

Figure A3 illustrates the same results by showing the effect of the treatment on each main outcome by voting intention subgroup. Outcomes are rescaled to 0-1 for comparability. The corresponding figure for ideology subgroups (Study 2 only) is included in the main text of the

Table A8: Models for Study 2 with interaction between disruption treatment and voting intention: left (baseline category), center, undecided/other or right. Dependent variables are first-differenced outcomes between wave 2 and wave 1 on their original scales.

	Dependent variable:				
	Salience	Oil opp.	Govt. dissat.	Concern	Behavior intent
	(1)	(2)	(3)	(4)	(5)
Treated	0.09*	−0.13	0.17	−0.14	−0.11
	(0.04)	(0.08)	(0.11)	(0.08)	(0.09)
Center	0.06	−0.22	−0.01	−0.21	0.27
	(0.09)	(0.16)	(0.23)	(0.16)	(0.17)
Other	−0.06	0.08	0.04	−0.14	−0.06
	(0.05)	(0.10)	(0.14)	(0.10)	(0.11)
Right	−0.14*	−0.04	0.05	−0.11	0.04
	(0.05)	(0.10)	(0.15)	(0.10)	(0.11)
Treated:Other	−0.05	0.15	0.13	0.16	−0.09
	(0.12)	(0.22)	(0.31)	(0.21)	(0.23)
Treated:Center	−0.02	−0.10	−0.13	0.33*	0.13
	(0.08)	(0.15)	(0.20)	(0.14)	(0.15)
Treated:Right	0.06	0.05	−0.44*	0.27	−0.02
	(0.08)	(0.15)	(0.21)	(0.14)	(0.16)
Observations	847	815	826	845	840
R^2	0.03	0.01	0.01	0.01	0.01
Adjusted R^2	0.02	0.003	0.002	0.002	0.0000
Note:					*p<0.05; **p<0.01; ***p<0.001

Table A9: Models for Study 2 with interaction between disruption treatment and ideology: left (baseline category), center or right. Dependent variables are first-differenced outcomes between wave 2 and wave 1 on their original scales.

	Dependent variable:				
	Salience	Oil opp.	Govt. dissat.	Concern	Behavior intent
	(1)	(2)	(3)	(4)	(5)
Treated	0.04	−0.12	0.12	−0.07	−0.05
	(0.04)	(0.09)	(0.12)	(0.08)	(0.09)
Center	−0.11*	0.003	−0.11	−0.05	−0.05
	(0.05)	(0.09)	(0.13)	(0.09)	(0.10)
Right	−0.16**	0.05	−0.07	−0.08	−0.05
	(0.05)	(0.10)	(0.14)	(0.10)	(0.11)
Treated:Center	0.11	0.05	−0.003	0.06	−0.12
	(0.07)	(0.13)	(0.19)	(0.13)	(0.14)
Treated:Right	0.09	−0.14	−0.23	0.23	−0.01
	(0.08)	(0.14)	(0.20)	(0.14)	(0.15)
Observations	847	815	826	845	840
R^2	0.03	0.01	0.01	0.004	0.01
Adjusted R^2	0.02	0.004	0.001	−0.002	0.0005
Note:					*p<0.05; **p<0.01; ***p<0.001

paper.

While the tables above show that most subgroup comparisons are not significant, we can see in the top panel of Figure A3 that Danish (Study 1) respondents with "undecided/other" voting intentions tend to be more affected. Perhaps that is because this group includes many undecided voters who have weaker pre-existing political attitudes. For example, they may be less committed to the issues they originally name as most important, and therefore more willing to swap one for climate change. We do not see the same pattern, however, for undecided/other voters in Study 2.

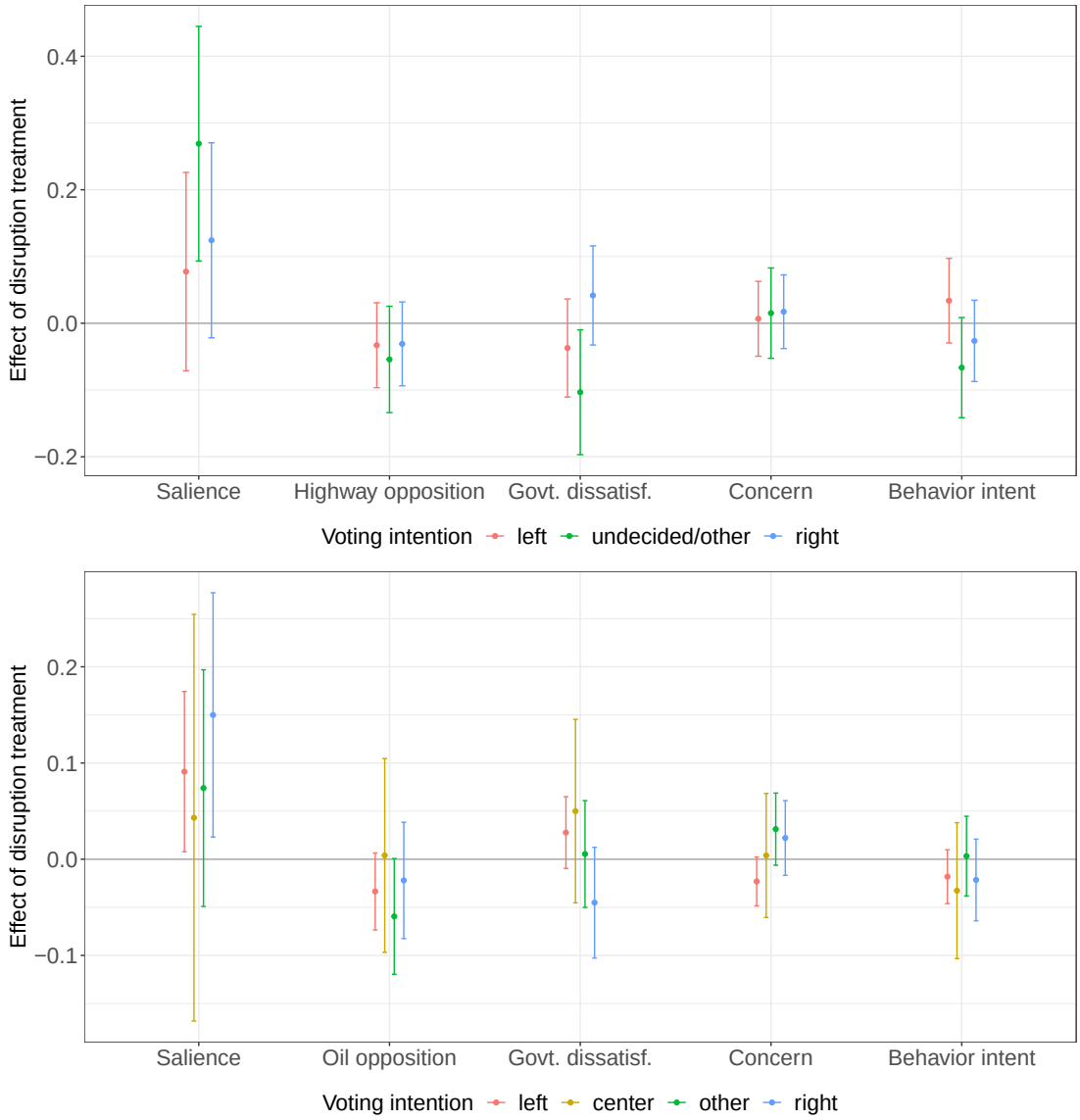

Figure A3: Effect of exposure to climate disruption article on main outcome variables (rescaled 0–1), conditional on respondent's voting intention, Study 1 (top) and 2 (bottom).

Ceiling effects for left-wing respondents

In this section, I investigate whether ceiling effects might be behind the fact that the disruption treatments appears not to cause polarization by political orientation. If left-wing respondents already have maximally convinced or concerned climate attitudes on the particular scales I measure, then they will not see a positive movement on those scales. For instance, among respondents with left-wing voting intentions, 25% (Study 1) and 30% (Study 2) already gave the top answer to both items on the climate concern score, giving them no room to be moved up. In the UK (Study 2), moreover, 32% of respondents already fully supported a stop to new oil and gas extraction.

To investigate the possibility of ceiling effects, I add analyses leaving out respondents that already gave the top answer to the relevant outcome variable in wave 1. I re-estimate interaction effects of the treatment with left- versus right-wing voting intention, and with left- versus right-wing ideology for Study 2. Tables A10-A12 report on these analyses. The baseline category is left-wing respondents, so if the treatment has a polarizing effect, we would expect to see negative interaction terms (as right-wing respondents are more negatively affected).

Results are comparable to the analyses above without left-out respondents, with the exception of salience in Study 1—more on this below. In Study 2, interacting the treatment with voting intention, there is still a (now marginally) significant interaction on the outcome variable of dissatisfaction with government action. The difference between left-wing and right-wing treatment effects is now slightly smaller ($-.39$ on the 7-point scale). For ideology (Study 2 only), there are no substantively or statistically significant interactions.

Table A10: Interaction coefficients on each outcome measure, between the media treatment and left- wing (baseline category) versus right-wing voting intention (Study 1), leaving out respondents that gave the top answer(s) on that outcome variable in Wave 1.

	Estimate	Std. Error	Pr(>|t|)	n
Salience	-0.24	0.13	0.063	297
Highway opposition	-0.09	0.20	0.633	400
Govt. dissatisf.	0.24	0.32	0.453	415
Concern	0.11	0.26	0.688	407
Behavior intent	-0.33	0.27	0.221	465

Table A11: Interaction coefficients on each outcome measure, between the media treatment and left- wing (baseline category) versus right-wing voting intention (Study 2), leaving out respondents that gave the top answer(s) on that outcome variable in Wave 1.

	Estimate	Std. Error	Pr(>|t|)	n
Salience	0.01	0.08	0.904	691
Oil opposition	0.08	0.17	0.645	645
Govt. dissatisf.	-0.39	0.21	0.067	723
Concern	0.24	0.16	0.153	673
Behavior intent	-0.03	0.15	0.825	837

Table A12: Interaction coefficients on each outcome measure, between the media treatment and left- wing (baseline category) versus right-wing ideology (Study 2), leaving out respondents that gave the top answer(s) on that outcome variable in Wave 1.

	Estimate	Std. Error	Pr(>|t|)	n
Salience	0.08	0.08	0.293	691
Oil opposition	-0.16	0.17	0.320	645
Govt. dissatisf.	-0.24	0.21	0.245	723
Concern	0.22	0.16	0.172	673
Behavior intent	0.01	0.15	0.950	837

As noted above, in Study 1, there is now a statistically and substantively significant difference between the treatment effect on left-wing and right-wing respondents with respect to salience (see Table A10). This analysis leaves out the 52% of Danish left-wing participants who already mentioned climate change or the environment in wave 1, along with the 31% of right-wing respondents who did. Among the remaining respondents, left-wingers are 25% more likely to start mentioning climate change as a top-three issue if they are treated, while right-wing respondents are only 1% more likely to start doing so. Curiously, the reason why the treatment has a positive effect in the full sample of right-wing respondents seems to be that it caused participants who *already* mentioned climate change in wave 1 to continue mentioning it. Untreated right-wing participants who already mentioned climate change in wave 1 are only 57% likely to still mention it in wave 2; treated right-wing participants continued to mention it with a 89% probability.

In other words, the unfiltered moderation analyses for Study 1 (Table A7 and Figure A3 in the previous section) arguably underestimate the positive effect on salience for left-wing participants, by including many who could not be influenced further. At the same time, the filtered moderation analyses underestimate the positive salience effect for right-wing participants, by overlooking the large "attention-maintaining" effect of the treatment for them. All in all, I there is little evidence that the treatment had a polarizing effect on salience in Study 1, as the percentages of left- and right-wing respondents who mention climate change in the treated group (72% and 44%) are in fact slightly closer to one another than in the control group (63% and 34%).

Moderation by previous attitudes

Tables A13 and A14 show interaction coefficients on each outcome measure, interacting the media treatment with respondents' wave 1 (pre-treatment) level of the same outcome. Positive interactions would suggest a polarizing effect, where already-convinced respondents become more convinced when treated (or skeptical respondents become more so). Outcomes are on their original scales; the dependent variable is the difference between the outcome in wave 1 and 2. We see no evidence of any such interactions with pre-existing attitudes, with the exception of a small, marginally significant negative interaction term for concern in Study 1; respondents who were one point higher on the concern scale before treatment, were moved .06 points less positively by the treatment. This is a very small effect, but it points in the direction of *de*-polarization.

Table A13: Interaction coefficients on each outcome measure, between the media treatment and respondents' wave 1 (pre-treatment) attitude on the same outcome (Study 1).

	Estimate	Std. Error	Pr(>|t|)	n
Salience	0.06	0.08	0.444	503
Highway opposition	0.02	0.06	0.776	463
Govt. dissatisf.	0.01	0.08	0.887	467
Concern	-0.16	0.06	0.006	495
Behavior intent	-0.06	0.06	0.330	473

Table A14: Interaction coefficients on each outcome measure, between the media treatment and respondents' wave 1 (pre-treatment) attitude on the same outcome (Study 2).

	Estimate	Std. Error	Pr(>|t|)	n
Salience	-0.08	0.07	0.271	847
Oil opposition	-0.02	0.04	0.687	815
Govt. dissatisf.	0.01	0.05	0.890	826
Concern	-0.06	0.03	0.083	845
Behavior intent	-0.04	0.04	0.335	840

Tables A15 and A16 contain interaction coefficients with salience as the dependent variable (DV), interacting the media treatment with respondents' wave 1 (pre-treatment) climate attitudes (Study 2). Positive interactions mean that respondents with more progressive climate attitudes are more likely to react with increased salience. Each table row reports on a different model (in order words, these interactions were not tested side by side in the same model). We see largely null effects, with the exception in Study 2 of a marginally significant positive interaction with concern, and conventionally significant positive interactions with the secondary climate policy support and fossil fuel regulation variables. This means that participants who were more concerned about climate change and more supportive of policy were more positively influenced by the treatment.

Table A15: Interaction effects on salience as the DV, between the media treatment and respondents' wave 1 (pre-treatment) attitude on the each outcome (Study 1).

	Estimate	Std. Error	Pr(>|t|)	n
Highway opposition	-0.01	0.04	0.871	475
Govt. dissatisf.	-0.01	0.03	0.835	474
Concern	0.04	0.03	0.208	495
(Climate policy)	-0.01	0.04	0.807	483

Table A16: Interaction effects on salience as the DV, between the media treatment and respondents' wave 1 (pre-treatment) attitude on the each outcome (Study 2).

	Estimate	Std. Error	Pr(>|t|)	n
Oil opposition	0.03	0.02	0.131	824
Govt. dissatisf.	-0.03	0.02	0.174	837
Concern	0.03	0.02	0.052	844
(Climate policy)	0.06	0.03	0.038	839
(Fossil regulat.)	0.05	0.02	0.024	829

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