Supplementary Materials

Variables

Table A1: Descriptive statistics of the dependent variables civic participation, general political interest, top issue interest, and internal efficacy, the moderator political knowledge, and the mediators ad liking, ad relevance, and targeting recognition (N = 445; n = 299 for the mediators).

	Mean	Standard deviation	Min	Max
Dependent variables				
Civic participation	4.01	1.36	1	7
General political interest	4.50	1.56	1	7
Top issue interest	5.71	1.41	1	7
Internal efficacy	4.50	1.48	1	7
Moderator				
Political knowledge	1.96	1.29	0	5

Intended civic participation: measured by asking respondents to indicate how likely they were to (1) follow actors engaged in the field of [topic] on social media, (2) create own contributions (e.g., posts, tweets...) on the topic of [topic], (3) like other people's posts about [topic], (4) comment on other people's posts about [topic], (5) share other people's posts about [topic], (6) sign a petition on [topic], (7) share a petition on [topic], and to (8) create a petition on [topic] in the run-up to the next federal election (in September 2021), where [topic] was replaced with each respondent's preferred topic derived from the political issue preference question also employed for the ad targeting in the targeted treatment group[7]. After a Mokken analysis[8] confirmed the item battery's strong construct validity ($H_i < 0.43$; $H = 0.53$; full results in table below).

Table A2: Results of the Mokken analysis for the political participation likelihood scale (N = 445).

Item	Mean Score	H_i	z-stat.	H0: H_j<=0 p-value
Create petition	2.71	.44	22.04	.000
Create own posts	3.34	.52	27.39	.000
Follow channels	4.34	.52	27.70	.000
Comment on others' posts	3.91	.56	29.77	.000
Share others' posts	4.21	.59	31.48	.000
Like others' posts	4.99	.52	26.93	.000
Sign petition	4.41	.51	27.32	.000
Share petition	4.16	.60	31.89	.000
Total	4.01	.53	56.26	.000

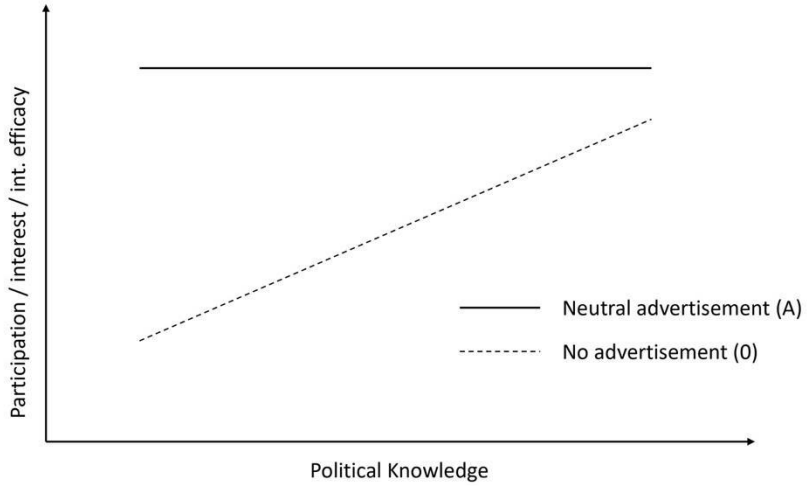
Political knowledge: measured by asking respondents to indicate the party affiliation of five members of the German parliament with different degrees of popularity. As this question was asked post-treatment (to prevent priming respondents on political issues pre-treatment), it was important that responses would not be affected by the treatment. This could be confirmed by a t-test testing *political knowledge* differences between the control group (M = 1.71; SD = 1.10) and the (combined) treatment groups (M = 1.80; SD = 1.16), t (443) = -.75, p = .45, 95% CI [-.31, .14]. Furthermore, as the survey was taken online, we only provided pictures of the politicians, to prevent a simple web-search motivated by social desirability. A Mokken analysis revealed that the fit of the knowledge question regarding Aminata Touré was insufficient (H_{ij} = 0.26; H = 0.39; full results in table below). Excluding this knowledge question led to an improvement of the scale (H_i < 0.39; H = 0.48) but essentially did not change the results of the analysis. Therefore, we proceed with the full *political knowledge* scale, which is the simple count of correct answers to the five knowledge questions (M = 1.96, SD = 1.29, H = 0.39).

Table A3: Results of the Mokken analysis for the political knowledge scale (N = 445).

Item	**Mean Score**	**H_i**	**z-stat.**	**H0: H_j<=0 p-value**
Merkel	.86	.53	5.78	.000
Seehofer	.41	.48	11.86	.000
Maas	.22	.31	8.63	.000
Touré	.19	.26	6.79	.000
Wagenknecht	.28	.43	12.21	.000
Total	.35	0.39	14.59	0.00000

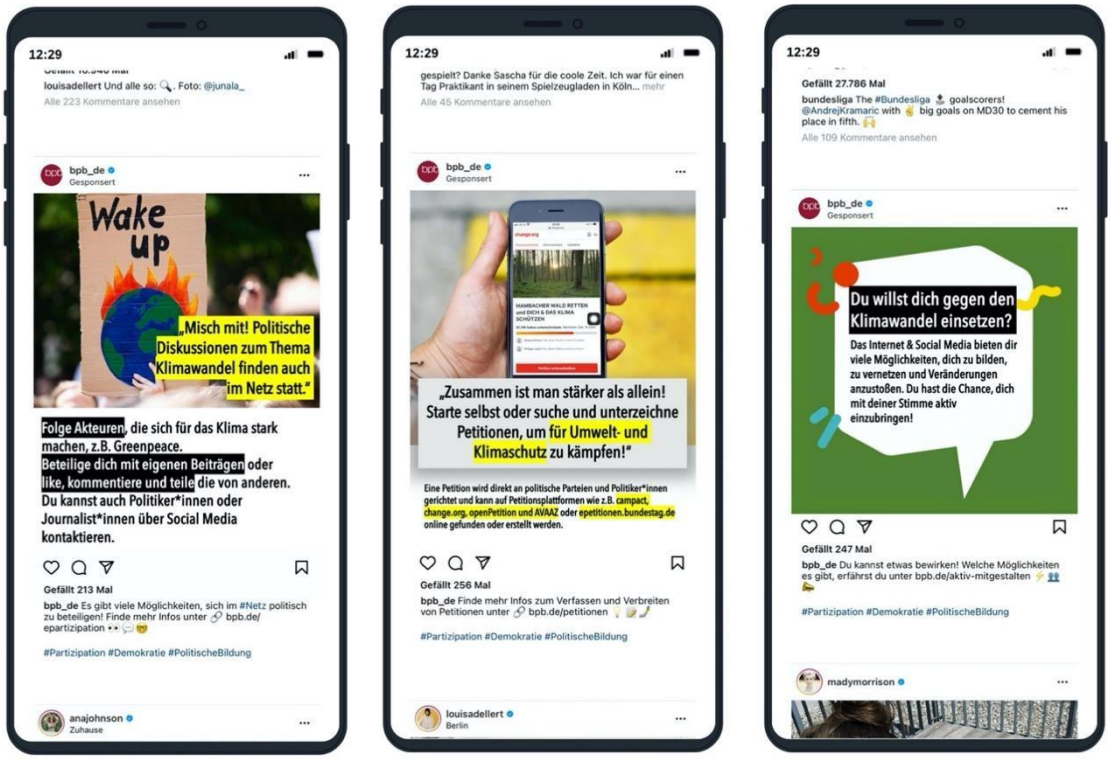
Expected Moderation effect

Figure A1: Contingent convergent positive moderation



Civic Education Ads

Figure A2: Example screenshots of civic education ads displayed in the feed.



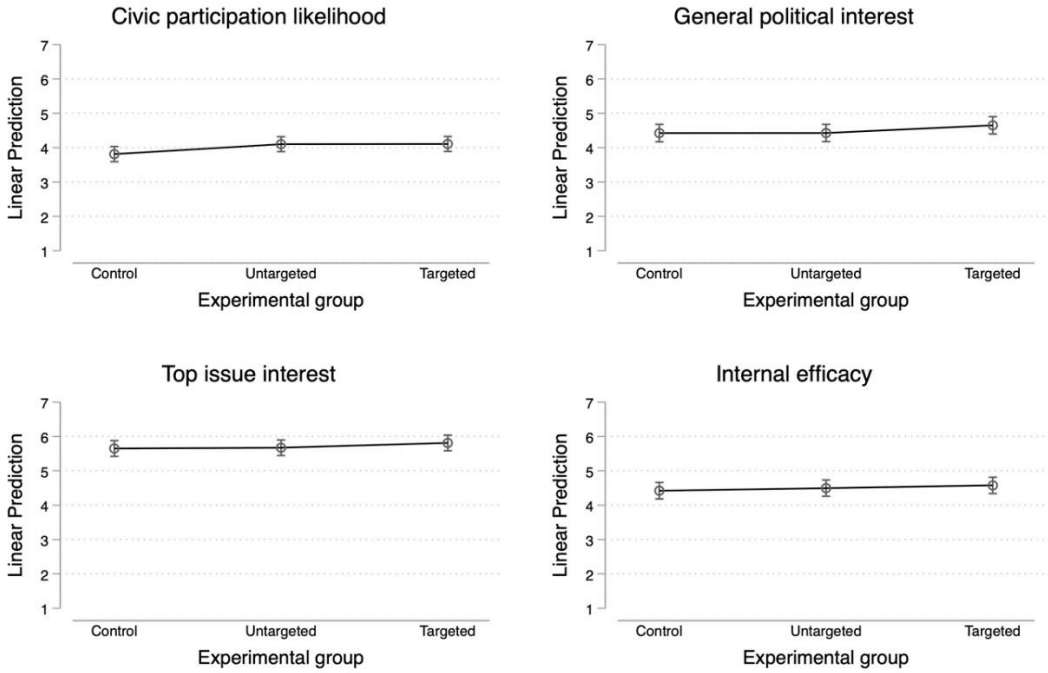
Left: *"Please join! Political discussions about climate change also take place online"* (text in image), *"Follow actors who campaign for the climate, e.g., Greenpeace. Participate with your own contributions or like, comment, and share those of others. You can also contact politicians or journalists via social media."* (text below image), *"There are many ways to get involved politically on the #web! Find more info on bpb.de/epartizipation"* (caption)

Middle: "*Together we are stronger than alone! Start yourself and sign petitions to fight for environmental and climate protection!"* (text in image), *"A petition is addressed directly to political parties and politicians and can be found or created online on petition platforms such as campact, change.org, openPetition, and AVAAZ or epetitionen.bundestag.de."* (text below image), *"Find more information about writing and distributing petitions at bpb.de/petitionen"* (caption)

Right: *"Do you want to take action against climate change? The Internet and social media offer you many opportunities to educate yourself, to network, and to initiate changes. You have the chance to actively contribute with your voice!"* (text in image), *"You can make a difference! You can find out what options there are at bpb.de/aktiv-mitgestalten"* (caption)

Margins of main effects (H1 & H2)

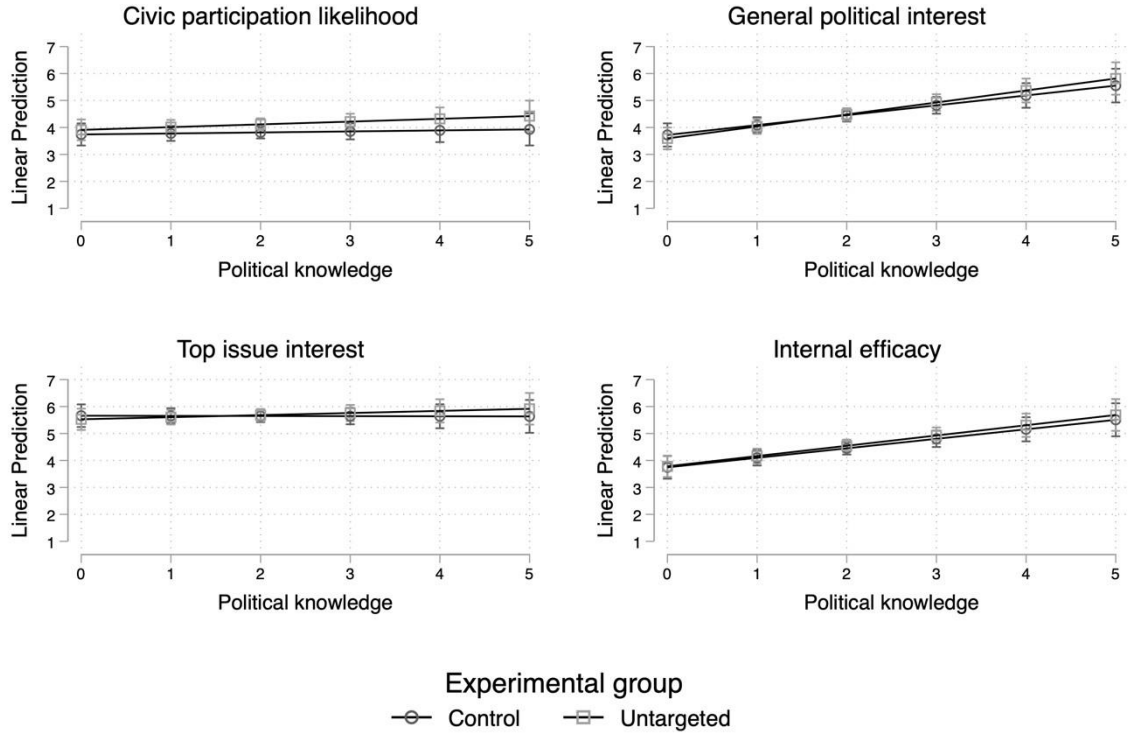
Figure A3: Marginal predictions (including 95% confidence intervals) of the linear regression models on the dependent variables civic participation (row 1, column 1), general political interest (row 1, column 2), top issue interest (row 2, column 1), and internal efficacy (row 2, column 2) by experimental groups (N = 445).



Note: Whiskers display 95% confidence intervals.

Margins of hypothesized moderation (H3)

Figure A4: Marginal predictions of the linear regression models on the dependent variables civic participation (row 1, column 1), general political interest (row 1, column 2), top issue interest (row 2, column 1), and internal efficacy (row 2, column 2) by experimental groups (n = 296).



Note: Whiskers indicate 95% confidence intervals.

We found a significant positive indirect effect on political engagement and civic participation likelihood by increasing ad liking, perceived ad relevance and targeting recognition. An exploratory analysis also revealed that the targeting effect through ad liking, and ad relevance is conditional on a person's levels of political interest and political knowledge, as this effect was only observable among respondents with lower levels of political interest and knowledge. Furthermore, the targeting effect on ad liking and ad relevance was found to be conditional on respondents' prior levels of political interest and knowledge. People with higher levels of political knowledge and interest generally showed relatively high levels of ad liking and perceived relevance, regardless of whether the ads were targeted or not. People with lower levels of political knowledge and interest however only liked the ads and deemed them relevant if they were targeted towards their preferred issue. Therefore, the indirect effect of targeting via ad liking and perceived ad relevance is conditional on young adults' levels of political knowledge and interest. These results are not included in the paper due to a mistake made in the timing of the manipulation check which makes these results not reliable. This should be explored in further studies.