\significancestatement{The rapid rise of online campaigning has lead to new requirements for electoral rules. A public debate has emerged about government regulation that should govern the collection of private data and their usage for targeted political advertising. We conduct a survey experiment to show that the public debate is not only driven by concerns about data privacy but also by partisan self-interest. We provide causal evidence that partisans base their support for stricter government regulation partially on their belief if regulation would benefit or hurt their own party. Our findings show that partisans are willing to accept violations of privacy and harm to societal norms if their preferred party benefits from the use of targeted political advertising. These findings reveal that the current debate is partially driven by biased beliefs and reveal the necessity to increase transparency and truthfully inform the public about the effects of targeted political advertising.}

\begin{abstract}

The rapid emergence of targeted political advertising has sparked a heated public debate on how the government should react to it and has lead to public pressure in favor of stricter regulation. The regulatory debate has centered around concerns about the collection and use of private data of citizens. In this paper, we test and confirm the hypothesis that public attitudes toward stricter government regulation of targeted political advertising are additionally driven by partisan self-interest. We conduct an online survey-experiment with 1549 Americans that identify as either Democrat or Republican. Our findings show that Democrats and Republicans believe that targeted political advertising benefits the opposing party because opposing partisans are more susceptible to mobilizing targeted political advertising than supporters of their own party. We exogenously manipulate the beliefs of a random subset of participants by truthfully informing them that targeted political advertising has benefited Republicans in the past. This allows us to establish a causal link between beliefs about partisan advantage and attitudes toward stricter regulation. We show that informed Republicans have less favorable attitudes toward regulation than their uninformed co-partisans. This suggests that participants base their attitudes toward stricter regulation of targeted political advertising partially on beliefs on whether regulation would benefit their party and not solely on concerns about privacy violations. This result implies that people are willing to accept violations of their privacy if their preferred political party benefits from the use of targeted political advertising.

\dropcap{R}ecent advances in technology and the availability of vast amounts of personal data online have dramatically altered a key element of the electoral process: political campaigning. Political parties and campaigns can now microtarget specific messages to narrow groups of voters based on granular personal data \citep{de2016online} (see SI Appendix for a discussion). Targeted political advertising as a new method of political campaigning is quickly becoming a major tool for political actors \citep{hager2019online} and has been publicly implicated in the surprise outcomes of various elections \citep{benkler2018network}. According to public opinion polling, the large majority of Americans regards the use of personal data for targeted political online ads as unacceptable \citep{Smith} and a heated public debate calling for stricter regulations has accompanied the emergence of such ads \citep{Aral2019, dobber2019spiraling, kim2018stealth}. In response to public pressure \citep{Isaac}, Twitter and Google have already enacted self-imposed measures that either ban the use of targeted political advertising outright or limit the technical abilities of campaigns in their use \citep{Lerman, wong}. Similarly, Facebook has implemented an archive that stores all political ads that have been run on the platform \citep{leathern\_expanded\_2020}. Despite their potentially far-reaching consequences and mounting public pressure to regulate targeted political online ads, the political response to it has been slow, such that targeted political online ads are still largely unregulated \citep{beyersdorf2019regulating, Weintraub2019, dommett2019political}. Both public calls as well as private company efforts for regulation primarily address a lack of protection and transparency regarding the use of personal data for targeted political ads \citep{burkell2019voter, dommett2019data, dobber2019regulation}.

Indeed, the recent debate around stricter regulation has focused on restrictions of the use of personal data \citep{sihvola2019privacy} (see SI Appendix for a discussion). Previous work has established that people value the privacy of their data and that privacy concerns are an important factor in determining people's attitudes toward the regulation of targeted advertising in general \citep{milberg2000information, bellman2004international, okazaki2009consumer, acquisti2016economics} (see SI Appendix for a discussion). Concerns about the use of private data seem especially pressing in the context of targeted political advertising as it requires the collection, storage and use of large amounts of sensitive data about people's political attitudes \citep{rubinstein2014voter, Baum2019}. Further, people seem especially worried about political actors using their private data \citep{tan2018comparing}. Therefore, the public debate about stricter regulation of targeted political advertising has largely focused on its consequences for data security, privacy and the lack of transparency in its use \citep{boerman2017online, wood2017fool, magalhaes2018new, burkell2019voter, dommett2019data, dobber2019regulation}.

In this paper, we argue that attitudes toward the regulation of targeted political online advertising are not only driven by concerns about the misuse of private data. While targeted commercial advertising only influences individual purchasing choices, targeted political advertising has the potential to influence voting decisions and, as a consequence, elections \citep{zuiderveen\_borgesius\_online\_2018, magalhaes2018new}. This has consequences for broader societal outcomes, impacting much more than individual data protection. We propose that people take these consequences into account when forming preferences toward regulation of targeted political ads. Research on public opinions toward other parts of the electoral process indicates that people consider the electoral effects of regulations in a self-interested way \citep{boix1999setting, alvarez2011voter, biggers2019does}. Attitudes on gerrymandering, voter ID laws, or same-day voter registration all seem to be driven by partisan self-interest, or the concern for ensuring advantages for one's preferred party \citep{ansolabehere2009effects, chen2013unintentional, mccarthy2019partisanship}. In this study, we set out to explore whether partisan self-interest, in addition to privacy concerns, is an important determinant for people's attitudes towards stricter regulation of targeted political advertising. For that purpose, we ran an online survey experiment in the United States. Using a sample of Republican and Democratic participants, we investigated participants' beliefs about the consequences of the usage of targeted political advertising on voters of both parties in order to establish a link between partisan self-interest and attitudes towards targeted political advertising.

Understanding people's beliefs about the effects that targeted political advertising has on electoral outcomes is necessary to uncover the underlying drivers of people's attitudes towards stricter regulation. Political parties mainly use targeted political ads to mobilize their own voters. Therefore, people's perceptions on whether targeted political advertising benefits or harms their party depend on whether they believe that voters of their own party are mobilized more strongly than voters of the opposing party or vice versa. If people are motivated by partisan self-interest, they would oppose regulation in the first case since targeted political advertising would give their party an advantage in mobilization. In the latter case, people would demand regulation in order to mitigate the opposing party's mobilization advantage. We hypothesize that supporters of both parties believe targeted political ads yield an advantage for the opposing party.

Since in reality it might be difficult for people to correctly estimate the effects of targeted political advertising on other people, they might hold biased beliefs about it. To assess the ads' effects, Democrats have to guess how Republicans react to mobilizing messages and vice versa. Yet, the campaign messages that are presented to recipients remain mostly unavailable to others \citep{magalhaes2018new}. Given the limited transparency of targeted political advertising \citep{wood2017fool, zuiderveen\_borgesius\_online\_2018} as well as scarce knowledge about its effects on voters \citep{Aral2019} it seems likely that people have difficulties arriving at correct estimates \citep{feldmanhall2019resolving}. \par

Academic work on the extent to which a person will be influenced by targeted political online ads is still scarce, and hints towards demographics, place of residence, and political ideology all playing a role \citep{liberini2018politics}. There is, however, a large body of research on people's beliefs about the effect of undesirable persuasive mass communication on others, documenting that they generally believe that others are influenced by it to larger extent than themselves. This phenomenon is known as the third-person effect \citep{Davison1983, perloff1993third} (See SI Appendix for a discussion). Past studies have shown that the strength of the third-person effect increases with social distance to the "other" \citep{white1997considering, perloff1999third, jang2018third}. Furthermore, the third-person effect predicts that people not only believe that others are more influenced by undesirable mass communication, they also take action to rectify the consequences of such persuasive messages \citep{xu2008does}. High levels of polarization and mistrust between Democrats and Republicans in the U.S. suggest that the social distance between partisans is large \citep{bordalo2016stereotypes, iyengar2019origins, ahler2018parties, mason2018uncivil, martherus2019party, Lees2019, moore2020partisan}. Hence, the potential presence of the third-person effect combined with a high social distance between parties implies that both Republicans and Democrats might believe that opposing partisans are influenced to a larger extent by targeted political advertising than supporters of their own party. Crucially, this means that the opposing party is perceived to gain more from using mobilizing messages directed at their own electorate than one's own party. According to the literature on the third-person effect, this implies that people who believe voters of the other party are more influenced than voters of their own party also support regulation against targeted political ads.

We therefore further hypothesize that supporters of each party believe that supporters of the opposing party are influenced by targeted political advertising more strongly. As a consequence, they believe that the other party experiences an advantage from targeted political online ads and therefore favor stricter regulation as this would be in their partisan self-interest. To test these hypotheses in our experiment, we measure participants' beliefs about the effect of targeted political advertising on co-partisans and supporters of the opposing party and their attitudes toward regulation. To establish a causal link between partisan self-interest and attitudes toward regulation, we exogenously manipulate participants' beliefs about the effect of targeted political advertising.

This study consists of a correlational and an experimental part. In the first part, we find evidence for participants believing that supporters of the opposing party are more influenced by targeted political advertising than supporters of their own party. Importantly, we also show that beliefs about the effect of targeted political advertising on supporters of the other party relative to supporters of the own party are positively correlated with higher regulation demand. As a consequence, support for stricter regulation is not only linked to individual privacy concerns but also to participants' beliefs about partisan self-interest. In the experimental part, we truthfully inform a randomly selected sample of participants that the Republican party benefited more from the use of targeted political advertising in the 2016 Presidential election. Thereby, we change Republicans' perceptions of partisan self-interest without varying their concerns about privacy. Republicans who receive this information are less supportive of regulation compared to their uninformed co-partisans. This finding reveals a causal link between beliefs about partisan self-interest and people's attitudes toward stricter regulation. Our results display the challenges that new technological advances in the political domain and the subsequent need for new regulation pose. We show that some partisans are willing to oppose regulation if that behavior benefits their preferred party, even at the expense of concerns for privacy violations and massive data collection. Our findings further reveal that attitudes toward regulation are partially driven by biased beliefs about the effect of targeted political advertising on others, since participants of both parties believe that regulation is in their partisan self-interest.

\section\*{Experimental Design}

We conducted a pre-registered incentivized online survey experiment with a sample of adult Americans who identified as either Democrat or Republican. The study received IRB approval by the IRB Board of the Norwegian School of Economics and all participants gave informed consent before taking part in the study. The SI appendix material (SI Figure 2-SI Figure 11) contains detailed information about instructions and measurements. SI Figure 1 provides an overview of the structure of the experiment.

The study consisted of three parts: In the first part, we informed participants about targeted political online advertisement and measured their beliefs about its effect on supporters of both the Republican and Democratic party. In the second part, the experimental manipulation took place by informing a random subset of participants about the beneficial effect of targeted political ads for Republicans. In the third part, we measured all participants attitudes toward the regulation of targeted political ads, performed a manipulation check, and measured respondents' demographics as well as a number of other control variables. In the following, each part is described in detail.

In the first part of the survey, participants were asked to read a text about targeted political online advertisement that explained technical aspects and its typical usage in order to ensure that all participants had the same knowledge on the subject. We then asked them to imagine a hypothetical scenario in which both parties, Republicans and Democrats, compete in a close electoral race in which they spend equivalent sums on targeted political online advertising. We elicited participants beliefs about the extent to which they thought they themselves, Republicans and Democrats would be influenced by targeted political advertising on a five-point Likert scale ranging from "not at all" to "to a very great extent". This measurement is in line with previous literature on the third-person effect \citep{ perloff1999third, jang2018third}. The order of the questions about Republicans and Democrats was randomized. To address concerns that arise from participants' potential desire to answer negatively about the opposing side without necessarily believing so \citep{gerber2010partisanship, bullock2015partisan}, we follow previous work, \citep{prior2015you, cibelli2017effects} and asked participants to commit to answering the questions to the best of their knowledge.

In the second part of the survey, participants were randomly selected into either the treatment or the control condition. Participants in the treatment condition received the information that given the number of ads people saw, targeted political advertising on Facebook significantly increased voter turnout for the Republicans in the 2016 presidential election, while having no effect on Democrats. With this wording, we made sure participants did not consider different levels of campaign spending as a possible source of the ads' effects. The complete wording of the information treatment can be found in SI Figure 5. These results are based on a study by Liberini et al. \citep{liberini2018politics}.

In the final part of the survey, we measured all participants' attitudes towards regulation of targeted political online ads on a four item, seven-point Likert scale ranging from "strongly disagree" to "strongly agree"(adapted from \citep{krasnova2009privacy}). The items were: (i) Targeted political advertising should be banned, (ii) I support legislation that requires targeted political online advertising to be clearly marked as targeted, (iii) More regulation is needed when it comes to targeted political online advertising and (iv) The government is already doing enough to regulate targeted political online advertising (reverse coded). The order of these items was randomized. We incentivized honest answers by informing participants that their responses would be sent to U.S. Congress in aggregated and anonymous form \citep{elias2019paying}, stressing that there was no deception in the study.

To check whether the information treatment manipulated beliefs about the effects of targeted political advertising of participants in the treatment group, all subjects were then asked to make a guess on the number of interactions (likes, shares, comments) that social media campaigns on Facebook of both Republicans and Democrats received relative to each other prior to the midterm elections in 2018. In doing so, we are able to check whether participants generalize from information about the 2016 Presidential election to other elections. We offered a monetary incentive for participants to answer the question to the best of their knowledge \citep{de2018measuring}. Participants that gave the correct answer received a bonus of \$1 \citep{bullock2015partisan, flynn2017nature}. SI Figure 10 gives the exact question wording. In order to control for that the intervention only influenced beliefs about targeted political ads' persuasiveness but not other confounding aspects, we also measured whether participants thought the ads were (i) socially desirable, (ii) harmful to society (reverse coded), (iii) beneficial to cultural values and (iv) unfavorable to societal norms (reverse coded) on a ten-point scale.

To measure the level of privacy concerns, we presented participants with a four-item seven-point Likert scale (self developed) in which we asked participants whether they are concerned if (i) their data is collected and stored by third-parties, (ii) shared with third-parties, (iii) used to display targeted advertising to them and (iv) used for commercial purposes. The order of the items was randomized. We further included a fifth-item as attention check to make sure that participants carefully read the items. In line with our pre-analysis plan, participants who failed this attention check and another attention check are not included in the final sample.

We further collected data for political attitudes in terms of political engagement, subjective political knowledge, participants' level of social and economic conservatism \citep{everett201312}, a feelings thermometer towards both the Republican and the Democratic parties taken from the ANES-survey \citep{iyengar2019origins} and participants’ perceived political efficacy \citep{bowler2002democracy}. The demographic control variables included age, gender, ethnicity, education, income, household size, use time of the internet, use of an ad-blocker and social media usage.

\subsection\*{Sample characteristics}

We collected the data for this survey between the 15. January 2020 and the 24. January 2020. We collaborated with the market research company Dynata to recruit a demographically diverse sample of 1549 American participants who were either Democrats or Republicans. In the materials and methods section, we briefly discuss recruitment. On average, participants were 47.49 years old. 50.6\% of our sample were female and 25.05\% were non-white. The participants were better educated than the overall population of the United States. SI Appendix Table S1 provides an overview of the characteristics of our sample.

777 participants identified as Republicans and 772 identified as Democrats. Given the nature of our experimental design, Independents were not included in the study.

We randomly assigned the participants to either the treatment (755 participants, 369 Democrats, 386 Republicans) or the control condition (794 participants, 403 Democrats, 391 Republicans). Treatment assignment was balanced on observable characteristics and pre-treatment beliefs (SI Appendix Table S2).

\section\*{Results}

In this section we will present the results of our experiment. We will first present evidence for the hypothesis that supporters of both parties believe that supporters of the opposing party are influenced more strongly by targeted political advertising than supporters of their own party. This implies that they believe that the use of targeted political advertising runs counter to their partisan self-interest. We will then show correlational results about the link between these beliefs, privacy concerns and support for stricter regulation. Last, we will present our findings about the causal role of beliefs about the effects of targeted political advertising on attitudes towards regulation.

\subsection\*{Beliefs about the effect of targeted political advertising}\par

Figure \ref{fig:Beliefs} shows the participants' beliefs about the extent to which targeted political advertising influences Republicans and Democrats. We find that Republicans believe that Democrats ($\mu=3.20$) are more influenced than Republicans ($\mu=2.83$). Democrats report opposite beliefs, stating that they believe that Republicans ($\mu=3.41$) are more influenced than Democrats ($\mu=2.94$). Consistent with the third-person effect, these results show that Republicans as well as Democrats state that they believe that supporters of the opposing party are more influenced by targeted political advertisement than supporters of their own party (Wilcoxon-signed-rank-test, p<0.001). Exploratory data analysis reveals that the difference in participants' beliefs about the effect that targeted political advertisement has on opposing party supporters relative to supporters of their own party is not significantly different between Republicans and Democrats (two-sided Welch t-test, t(1540), d=0.08, p=0.11). This belief gap suggests that supporters of both parties believe that the opposing party benefits more from the use of targeted political advertising, suggesting that it harms partisan self-interest. The size of the belief gap between own and other party is correlated to different attitudes that participants hold. We find that this gap is significantly positively correlated to higher levels of affective and ideological polarization, perceived desirability of the advertising and high subjective political knowledge. Participants that hold a more negative view of the opposing party as measured on a feelings thermometer report a larger difference in effects on supporters of the opposing parties and supporters of their own party (SI Appendix SI Table 3, OLS-Regression, p<0.001). We also find that the level of conservatism for Republicans and liberalism for Democrats as measured on scale for social and economic conservatism \citep{everett201312} is positively correlated with their belief about how strongly opposing party supporters are influenced by targeted political advertisement (SI Appendix SI Table 3, OLS-Regression, p<0.001). Participants, who see the advertising as more socially and culturally desirable report a significantly smaller gap in beliefs between own and other party (SI Appendix SI Table 3, OLS-Regression, p<0.001). Taken together, these results suggest that people's belief that supporters of the opposing party are more influenced than supporters of their own party is linked to a negative perception of the opposition and a dislike of targeted political advertising more generally. That is in line with previous literature on the third-person effect that suggests that people's belief about the influence of media messages on others relative to themselves is correlated to the social distance to the other and a negative perception of the message. Moreover, participants who self-report a high level of political knowledge report a larger gap between own and other party (SI Appendix SI Table 3, OLS-Regression, p=0.04). We further find that participants belief that targeted political advertising has a very small influence on themselves ($\mu=2.39$).

\subsection\*{Support for government regulation}

On average, we find that participants are in favor of regulation ($\mu = 4.82$, SD = 1.18 , Cronbach's-$\alpha=0.67$). Figure SI 12 in the SI Appendix shows the distribution of support for regulation. Overall, 70\% of participants support stricter regulation of targeted political advertisement. Support for stricter government regulation is higher in the baseline condition (two-sided Welch t-test, t(782), p<0.001) among participants who identify as Democrats ($\mu=5.06$) compared to Republicans ($\mu=4.59$). We further find that participants on average are concerned about the use of their private data in targeted political advertising ($\mu=5.63$, SD = 1.25, Cronbach's-$\alpha$ = 0.90). Figure SI 13 shows the distribution of privacy concerns among participants. This concern is not significantly different (two sided Welch t-test, t(1529), Cohen's-d=0.05, p=0.31) between Democrats ($\mu=5.67$) and Republicans ($\mu=5.60$).

We run an OLS-regression to test whether privacy concerns and beliefs about partisan self-interest are significantly correlated to participants' support for regulation. Partisan self-interest is measured as the difference between participants' beliefs about the effect targeted political advertising has on supporters of the other party and on supporters of their own party. The material and method sections contains detailed information about the estimation procedure and included control variables. Table \ref{tab:Table1} shows that the support for stricter government rules is significantly linked to participants' belief about partisan self-interest (Belief other party - own party, p<0.001). Column 1 shows that a 1 SD increase in the difference between other and own party is linked to a 0.12 SD increase in the support for government regulation. This parameter is virtually unaffected by the inclusion of control variables (Column 2). We further show that a 1 SD increase in privacy concerns of participants leads to a 0.28 SD increase in support for regulation (Column 1, p<0.001). Column 2 shows that the inclusion of control variables does not significantly affect this parameter either. We find no significant link between participants' beliefs about the effect that targeted political advertising has on themselves and their support for stricter regulation (Belief about effect on self, p=0.187).

To check for the robustness of our finding, we also run an OLS-regression using participants' belief about the effect of targeted political advertisement on the opposing party and their belief about the effect on their own party as independent variable. SI Table 4 in the SI Appendix shows that support for stricter government regulation is strongly positively correlated to participants' beliefs about the effect on the other party (p<0.001) and negatively correlated to the effect on own party, but this effect is not significant (p=0.255).

\subsection\*{Participants' reaction to information about the effect of targeted political advertising}

We inform a randomly selected subgroup of Republicans and Democrats that Republicans benefited more from the use of targeted political advertising in the 2016 Presidential election. Figure \ref{fig:ManipulationCheck} shows the effect on beliefs about social media interactions in the 2018 Midterm election that this information had. We find that in this incentivized question, Republicans and Democrats who did not receive that information report beliefs that are qualitatively similar to the first measure of beliefs. Uninformed Republicans believe that Democrats received more interactions in the run-up to the 2018 Midterm elections while uninformed Democrats believe that Republicans received more interactions. Responses to this question and to the more general question about the effects of targeted political advertising on Republicans and Democrats are well correlated (r=0.24). SI Figure 14 illustrates the relationship between the answers to these two belief questions. For Democrats who received the information about the 2016 Presidential election, we see no shift in their beliefs about the 2018 Midterm elections ($\chi^2$-test, p=0.65). Republicans who received that information report that they believe that Republicans received more interactions in 2018. That is a significant shift in beliefs between informed and uninformed Republicans that is in line with the information that they have received ($\chi^2$-test, p=0.04). SI Figure 15 and SI Figure 16 show the distribution of answers for this question.

We next check whether the information shifted participants' support for stricter regulation of targeted political advertising. In line with the finding that beliefs for Democrats were not significantly influenced by the information, we find no effect on their support for regulation between treatment and control condition (two-sided Welch t-test, t(759), Cohen's d=0.04, p=0.58). SI Figure 17 shows the distributions of answers for Democrats in the treatment and the control condition. For Republicans, we find a significantly lower support for stricter regulation of targeted political advertising between treatment and control condition (two-sided Welch t-test, t(776), Cohen's d=0.15, p=0.04). These effects remain qualitatively the same when only looking at participants that want their opinion to be considered by Congress (98.7\% of the sample) and participants that express trust in the information that they received about the effect of targeted political advertisement (85.7\% of the treatment group), although in the latter case the effect becomes insignificant for Republicans (SI Appendix SI Table 5 \& 6). Table \ref{tab:Table2} shows the magnitude of the shift for Republicans in a reduced form regression. SI Figure 18 shows the distribution of answers for Republicans in the treatment and the control condition

We find a downward shift in Republicans' support for regulation by 0.20 SD. That effect is approximately equivalent to a 1.5 SD increase in participants' belief to what extent Democrats are influenced by targeted political advertising relative to Republicans and a 0.65 SD downward shift in privacy concerns. This results in an approximately 50\% increase in the gap of support for regulation between Republicans and Democrats in the treatment condition compared to the control condition ($\Delta\_{control}=0.47$, $\Delta\_{treatment}=0.70$).

To rule out that the information about the effect of targeted political advertising changed participants' perception of how desirable it is or participants' privacy concerns, we test for significant differences in these measures. We find that participants in general view the use of targeted political advertising as undesirable ($\mu=4.66$). When we compare the ratings of desirability of targeted political advertising for Republicans in the treatment ($\mu=4.75$) and control condition ($\mu=4.85$), we find no statistically significant difference (two-sided Welch t-test, t(769), Cohen's d=0.05, p=0.49). The same holds true for Democrats in the treatment ($\mu=4.42$) and control condition ($\mu=4.61$, two-sided Welch t-test, t(755), Cohen's d=0.09, p=0.20). We further find no significant differences in privacy concerns between treatment and control group (two-sided Welch t-test, t(1526), d=0.06, p=0.32). The same is true for Democrats (two-sided Welch t-test, t(759), Cohen's d=0.05, p=0.46) and Republicans (two-sided Welch t-test, t(768), Cohen's d=-0.05, p=0.49).

Exploratory data analysis reveals that the effect of the information on Republicans is heterogeneous between different levels of conservatism. SI Figures S19 \& S20 illustrate the findings. We find that for Republicans, who score below the median in social and economic conservatism among Republicans, the information that their party benefited from the use of targeted political advertisement does not significantly change their support for regulation compared to the same group who did not receive that information (two-sided Welch t-test, t(403), Cohen's d=0.02, p=0.87). The support for stricter regulation of targeted political advertisement of Republicans who score at or above the median in economic and social conservatism is significantly different between treatment and control group (two-sided Welch t-test, t(373), Cohen's d=0.27, p=0.01). This effect is not due to initial differences in the support for regulation in the baseline condition between above median and below median conservative Republicans (two-sided Welch t-test, t(347), p=0.64).

\section\*{Discussion}

Our results provide evidence that the support for stricter regulation of targeted political online advertising is partially motivated by partisan self-interest. We show that both Republican and Democratic participants in our sample believe that supporters of the opposing party are influenced by targeted political advertising to a larger extent than supporters of their own party. We find that this belief and people's concern over privacy both significantly drive people's support for policies that limit the use of such ads. Republicans who we inform about the beneficial effects of targeted political online ads for their party report a lower support for regulation than Republicans in the control condition. Therefore, we are able to show that the perception bias is causally linked to Republicans' support for stricter government regulation. This suggests that participants trade-off partisan self-interest against concerns about the violation of data privacy. We find that this effect is not present for all Republican participants but is concentrated among those with the highest levels of conservatism. This finding is in line with the idea that people trade-off personal costs, for example privacy concerns, with partisan self-interest. As more conservative Republicans gain more strongly from an electoral advantage of their party, they are more willing to accept violations of privacy if they provide their preferred party with a benefit in an election.

These results contribute to previous research examining motivations behind attitudes toward electoral laws. Previous work has shown that political party leaders are willing to use government regulation in ways that will increase the likelihood that they get elected in the future \citep{boix1999setting, alvarez2011voter, matakos2015strategic, bol2019electoral}. This behavior has been reported in the context of gerrymandering, voter ID laws or same-day registration for voting \citep{ansolabehere2009effects, chen2013unintentional, biggers2017understanding, mccarthy2019partisanship}. So far, less is known about the way the public forms their attitudes about electoral legislation \citep{biggers2019does}. While many scholars suspect strategic motivations being of similar relevance as with party elites, only scarce causal evidence exists to sustain this hypothesis \citep{alvarez2011voter, stewart2016revisiting}. Most studies cannot distinguish between the public pursuing strategic goals and them simply following party leader cues \citep{biggers2019does}. Our findings support the idea that the broader public indeed pursues similar goals as party elites and favors regulation based on their partisan self-interest and supports laws that benefit electoral success of their preferred party.

Our findings further add to an emerging literature that shows that some people are willing to make trade-offs between established democratic norms and partisan self-interest \citep{svolik2018polarization, svolik2019polarization, graham2019democracy, nyhan2020will}. Our results show that participants that have the strongest policy views react most to the information that targeted political advertising benefits their party. This is in line with previous findings that people are willing to accept harm to democratic principles if it benefits their policy goals. In our case, attitudes towards the regulation of targeted political advertising are partially driven by the desire to set rules that benefit people's preferred party even if they view targeted political advertising as harmful to societal norms. This behavior might be perceived as a threat to perceptions of the fairness of elections, which could then undermine peoples' support for a electoral system that relies on a shared understanding of democratic norms \citep{sunshine2003role, welzel2007mass, birch2010perceptions, doherty2012ends, levitsky2018democracies, douglas2013procedural}. We show that the rise of new technologies could potentially contribute to perceptions of "democratic backsliding" \citep{svolik2018polarization} as people might be willing to use the newly-required rules for new technologies to pursue partisan self-interest.

We further show that beliefs about the impact that new technologies have on the electoral process are crucial in our understanding of public attitudes towards them. This finding contributes to a wider literature that investigates how potentially wrong beliefs that people hold drive their behavior \citep{malmendier2016learning, goldfayn2019expectation, lergetporer2018information, roth2019expectations, coibion2020inflation}.

This work reveals that it is difficult to understand public preferences for certain policy measures without understanding the beliefs that people hold about key variables that are affected by these policies. Preferences for regulation of targeted political advertising are currently partially driven by third-person perceptions, leading to biased beliefs about their effect. That could lead to potentially sub-optimal policy decisions as politicians might follow public preferences that are driven by biased beliefs. Our finding reveals the necessity to provide truthful information about the effect of targeted political advertising to the public. We show that support for stricter regulation among Republicans would be significantly lower if they were correctly informed about the effect that it had on the 2016 Presidential election because they underestimate the positive effect that targeted political advertising might have on their own party.

Previous research on the third-person effect found evidence for a gap between the perceived effect of persuasive mass communication on the self and on others \citep{Davison1983, perloff1993third}. Further, correlational research supports the hypothesis that this gap motivates people in performing mitigating actions against the negative consequences of such persuasive communication \citep{xu2008does}. Our study adds to this literature in three ways. It is the first to show that the perceptual gap exists in the context of targeted political online advertising. Second, we are the first to establish a causal link between the perceptual gap described by the third-person effect and a behavioral measure for support for government regulation. By manipulating the perception gap of Republicans in our information treatment downward, and showing that this decreases their support of the mitigating action, we are able to show causality between perception and behavior. Third, our results also add to previous studies reporting that the third-person perception increases with social distance, or between in-groups and out-groups \citep{white1997considering, perloff1999third, jang2018third}. To the best of our knowledge, we are the first to show that the perceived gap in influence of undesirable mass communication between Democrats and Republicans is strongly linked to affective as well as ideological polarization and to measure this outcome with an unincentivized and an incentivized measure.

Our results have some limitations. First, we are unable to show similar causal results for Democratic supporters. We find a strong correlation between the beliefs that Democrats report about the effect that targeted political advertising has on Republicans and their support for stricter government regulation but cannot claim causality for this group. Given that we need to truthfully inform participants that we are not using deception in this study, we were unable to manipulate Democrats' beliefs in a way that is equivalent those of Republicans. Second, the main measure of interest, participants' support for stricter government regulation shows relatively low scale reliability (Cronbach's $\alpha=0.67$). In the SI Appendix Tables S7 \& S8 we report exploratory results that show that a reduced scale (excl. the fourth item) has higher reliability (Cronbach's $\alpha=0.75$) and that all of our main results are robust to the reduced scale.

In this paper, we develop a new experimental paradigm to study people's attitudes towards technological change that influences elections. We show that support for or opposition against the regulation of new technology that has implications for the political process is driven by potentially biased beliefs about how they affect political outcomes for one's preferred party. Therefore, our findings add to a growing policy debate and reveal the necessity to make the effects of targeted political advertising transparent and truthfully inform the public about the effects of the new technology to be able to fully understand their true attitudes. We believe that more research is necessary to fully understand the public's attitude towards these innovations, especially when it comes to beliefs about the spread and effect of false information and divisive messages. Further, our result that people take broader societal effects of targeted advertising into account might have implications for certain areas of targeted commercial advertising. We would encourage future research to investigate whether similar mechanisms would motivate people to oppose, for example, the use of targeted advertising to promote socially undesirable consumption like smoking, drinking or other unhealthy behavior.

\matmethods{

\subsection\*{Pre-Registration} The pre-registration plan for this study is available at the AEA RCT Registry as \href{https://doi.org/10.1257/rct.5296-1.0}{AEARCTR-0005296}. Deviations from the pre-registration plan are discussed in the SI Appendix.

 \subsection\*{Participant recruitment}

 We collaborated with the survey company Dynata to recruit our participants. For that purpose, we used Dynata's political panel to be able to recruit Republicans and Democrats as they collaborate with L2, the largest voting tracking service in the United States. Therefore, we were able to recruit Democrats and Republicans for which party affiliation was partially verified by real-world voting behavior. That further enabled us to not recruit Independents in our study.

 \subsection\*{OLS regression}

 In the OLS regressions, we only included participants who answered all questions of the survey. We estimated an OLS-regression with robust standard errors. We used participants' score on the regulation scale (standardized) as dependent variable in all regressions. The independent variable effect on own party is the score on the 1 to 5 scale that Democrats assigned to Democrats and Republicans assigned to Republicans. The independent variable effect on other party is the score that Democrats give Republicans and Republicans give Democrats. In the main specification (Table 1) we standardized the difference between other party and own party as independent variable. Privacy concerns are also standardized in the regression. Effect on self is the score participants assign to themselves. Demographic information are age, Education (dummy for above at median in the sample), Income (dummy for above median in the sample), Household size (Dummy for more than 2 members), Gender (Male dummy variable) and a dummy for being non-white. Social media use is a dummy variable for the use of social media, a continuous variable for the time people spent online in general (in hours) and the use of an ad-blocker (Dummy for yes). Political engagement is a dummy variable for being politically active within the last year, external political efficacy, political knowledge (dummy for above median knowledge) and attitudes towards government regulation in general. SI Appendix Tables S9 \& S10 show the main regression results with all demographic variables.