\significancestatement{The rapid rise of online campaigning has led to calls for changing the requirements governing the election process. The collection of private data and their usage in targeted political advertising have fueled a growing public debate over how government should regulate these phenomena. Using a survey, we conducted an experiment to determine whether the public debate is driven not only by concerns about data privacy, but also by partisan self-interest. There is causal evidence that partisans’ support for stricter government regulation is based partially on whether they view regulation as beneficial or harmful to their preferred party. Our findings demonstrate 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, revealing that the current debate is driven in part by biased beliefs, indicate the need 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 over what the government’s response should be, and has led to public pressure advocating stricter regulation. To date, the regulatory debate has centered around public concerns about the collection and use of citizens’ private data. This paper tested and confirmed the hypothesis that public attitudes toward stricter government regulation of targeted political advertising are also motivated by partisan self-interest. We conducted an experiment using an online survey of 1549 Americans who identify as either Democrats or Republicans. Our findings show that Democrats and Republicans believe that targeted political advertising benefits the opposing party. This belief is based on their conviction that their political opponents are more likely to mobilize targeted political advertising than are supporters of their own party. We exogenously manipulated the beliefs of a random subset of participants by truthfully informing them that, in the past, targeted political advertising has benefited Republicans. This enabled us to establish a causal link between beliefs about partisan advantage and attitudes toward stricter regulation. Our findings show that Republicans informed about this benefit for Republicans had less favorable attitudes toward regulation than did their uninformed co-partisans. This suggests that participants’ attitudes regarding stricter regulation of targeted political advertising are based not solely on concerns about privacy violations, but also, in part, on beliefs about whether regulation would benefit their party. 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 as a factor causing unanticipated outcomes in a number of elections \citep{benkler2018network}. According to public opinion polling, the large majority of Americans considers the use of personal data for targeted online political ads 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 instituted self-imposed measures that either ban the use of targeted political advertising outright or limit the technical abilities of campaigns to use these platforms \citep{Lerman, wong}. Facebook has responded by establishing an archive that stores all political ads that have been run on the platform \citep{leathern\_expanded\_2020}. Despite the potentially far-reaching consequences posed by targeted online political ads and the mounting public pressure to regulate them, the political response has been slow. Consequently, targeted online political ads are still largely unregulated \citep{beyersdorf2019regulating, Weintraub2019, dommett2019political}. Both public calls for regulation and private sector directives address primarily a lack of protection and transparency regarding the use of personal data for targeted political ads \citep{burkell2019voter, dommett2019data, dobber2019regulation}.

In fact, the recent debate over stricter regulation has focused on restrictions on the use of personal data \citep{sihvola2019privacy} (see SI Appendix for a discussion). Previous research 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). Unease about the use of private data appears particularly pressing in the context of targeted political advertising, as such advertising that requires the collection, storage and use of large amounts of sensitive data about people's political attitudes \citep{rubinstein2014voter, Baum2019}. Furthermore, people seem especially worried about the use of their private data by political actors \citep{tan2018comparing}. Therefore, the public debate about stricter regulation of targeted political advertising has focused largely on the data security and privacy consequences of such data collection, as well as on 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 online political advertising are driven not only by concerns over the misuse of private data. While targeted commercial advertising influences only individuals’ purchasing choices, targeted political advertising has the potential to influence voting decisions and, as a result, elections \citep{zuiderveen\_borgesius\_online\_2018, magalhaes2018new}. This has consequences for broader societal outcomes, affecting far more than individual data protection. We posit that people take these consequences into account when forming preferences regarding the regulation of targeted political ads. Research on public opinions about other aspects of the electoral process indicates that self-interest is an important factor in people’s positions about the electoral effects of regulations \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 by the concern for ensuring advantages for one's preferred party \citep{ansolabehere2009effects, chen2013unintentional, mccarthy2019partisanship}. This study seeks to explore whether, in addition to privacy concerns, partisan self-interest is an important determinant of people's attitudes towards stricter regulation of targeted political advertising. For that purpose, we ran an experiment in the United States using an online survey. Working with a sample of Republican and Democratic participants, we investigated participants' beliefs about the consequences of using targeted political advertising aimed at voters of both parties in order to determine whether there is a link between partisan self-interest and attitudes towards targeted political advertising.

Understanding people's beliefs about the effects of political advertising on electoral outcomes is critical for ascertaining the underlying drivers of public attitudes towards stricter regulation. Political parties use targeted political ads mainly to mobilize their own voters. Therefore, people's perceptions as to 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 are voters of the opposing party or vice versa. If people are motivated by partisan self-interest, they would oppose regulation in the first case, based on their perception that 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.

Due to the potential difficulty people may have in correctly estimating the actual effects of targeted political advertising on others, it is plausible that they could hold biased or unfounded beliefs about the issue. As a result, to assess the ads' effects, Democrats must guess how Republicans react to mobilizing messages and vice versa. However, campaign messages that are delivered to targeted recipients remain largely unavailable to others \citep{magalhaes2018new}. Given the limited transparency of targeted political advertising \citep{wood2017fool, zuiderveen\_borgesius\_online\_2018}, as well as the paucity of information about its effects on voters \citep{Aral2019}, it seems likely that people do indeed have difficulties arriving at accurate estimates \citep{feldmanhall2019resolving}. \par

Academic work on the extent to which a person will be influenced by targeted online political ads, while still scarce, does suggest that demographics, place of residence, and political ideology all play a role in determining this phenomenon \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 people generally believe that others are influenced by it to a larger extent than they are 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, but that these people 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 United States 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 large social distance between the parties, suggests that both Republicans and Democrats may believe that opposing partisans are influenced by targeted political advertising to a larger extent than are supporters of their own party. Crucially, this means that the opposing party is perceived as gaining more from the use of mobilizing messages directed at their own electorate than is one's own party. As a result, according to the literature on the third-person effect, it can be inferred that people who believe voters of the other party are more influenced by targeted political ads than are voters of their own party will also support regulation of this advertisingF.

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

This study is composed of a correlational and an experimental part. The correlational part provides evidence that participants believe that supporters of the opposing party are more influenced by targeted political advertising than are 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 one’s own party are positively correlated with a stronger demand for regulation. As a consequence, support for stricter regulation is linked not only to concerns about individuals’ privacy, but also to participants' beliefs about partisan self-interest. In the experimental part of the study, we truthfully informed a randomly selected sample of participants that the Republican party benefited more than the Democratic party from the use of targeted political advertising in the 2016 presidential election. Thereby, we changed Republicans' perceptions of partisan self-interest without altering their concerns about privacy. Republican recipients of this information were less supportive of regulation than were their co-partisans who had not been given this information. This finding reveals a causal link between beliefs about partisan self-interest and people's attitudes toward stricter regulation. Our results reveal the challenges posed by new technological advances in the political domain and the ensuing need for new regulation. We show that some partisans are willing to oppose regulation if they believe that targeted political advertising benefits their preferred party, even at the expense of concerns about 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 from both parties believe that regulation is in their own partisan self-interest.

\section\*{Experimental Design}

We conducted a pre-registered, incentivized online survey experiment with a sample of adult Americans identifying either as Democrats or Republicans. The study received an IRB approval from 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.

There were three phases to this study. In the first phase, we informed participants about targeted online political advertising and measured their beliefs about its effect on supporters of both the Republican and Democratic parties. In the second phase, the experimental manipulation was conducted by informing a random subset of participants about the beneficial effects of targeted political ads for Republicans. In the third phase, we measured all participants’ attitudes toward the regulation of targeted political ads, performed a manipulation check, and measured respondents' demographics along with a number of other control variables. The following describes each phase in detail.

To ensure that all participants had the same knowledge on the subject, in the first phase of the study, participants were asked to read a text about targeted online political advertising that explained its technical aspects and its typical usage. We then asked participants to consider a hypothetical scenario in which both Republicans and Democrats competed in a close electoral race in which they spent equivalent sums on targeted online political advertising. We elicited participants’ beliefs about the extent to which they thought that they personally, Republicans and Democrats alike, would be influenced by targeted political advertising, using a five-point Likert scale ranging from "not at all" to "to a very great extent." This measurement corresponds to previous findings from the literature on the third-person effect \citep{ perloff1999third, jang2018third}. The order of the questions about Republicans and Democrats was randomized. To address concerns that participants could potentially want to give negative answers about the opposing side while not necessarily believing that such answers had a basis in fact \citep{gerber2010partisanship, bullock2015partisan}, we emulated the approach of previous studies \citep{prior2015you, cibelli2017effects}, and asked participants to commit to answering the questions to the best of their knowledge.

In the second phase of the survey, participants were randomly placed in either the treatment or the control group. Participants in the treatment group were informed that controlling for 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 ensured that participants did not look to different levels of campaign spending as a possible cause of the ads' effects. The complete wording of the information used with the treatment group can be found in SI Figure 5. These measures are based on a study by Liberini et al. \citep{liberini2018politics}.

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

To determine whether the information treatment succeeded in manipulating beliefs about the effects of targeted political advertising of participants in the treatment group, all subjects were then asked to make an estimation of 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. This enabled us to ascertain whether participants generalized from information about the 2016 Presidential election and applied it to other elections. We offered a monetary incentive for participants to answer the question to the best of their knowledge \citep{de2018measuring}. Participants giving the correct answer received a bonus of \$1 \citep{bullock2015partisan, flynn2017nature}. The exact wording of the question can be found in SI Figure 10. In order to control for the possibility that the intervention influenced only beliefs about targeted political advertising’s persuasiveness, but not about other problematic aspects of such advertising, 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 assess the level of privacy concerns, we presented participants with a four-item, seven-point Likert scale questionnaire (developed by authors) in which we asked participants whether they were concerned that their data was: (i) 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 an attention check to ensure that participants carefully read the items. In accordance with our pre-analysis plan, participants who failed this attention check and another attention check were 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}, an ANES-based feelings thermometer towards both the Republican and the Democratic parties \citep{iyengar2019origins}, and participants’ perceived political efficacy \citep{bowler2002democracy}. The demographic control variables included age, gender, ethnicity, education, income, household size, use time on the internet, use of an ad-blocker and social media usage.

\subsection\*{Sample characteristics}

We collected the data for this survey between the January 15, 2020 and January 24, 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. Recruitment is discussed briefly in the Materials and Methods section. On average, participants were 47.49 years old. Of the sample, 50.6% 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.

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

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

\section\*{Results}

This section presents the experiment results. First, we will present evidence supporting the hypothesis that supporters of both parties believe that supporters of the opposing party are influenced more strongly by targeted political advertising than are supporters of their own party. This implies that they believe that the use of targeted political advertising undermines their partisan self-interest. We will then present correlational results regarding 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 found that Republicans believed that Democrats ($\mu=3.20$) are more influenced than are Republicans ($\mu=2.83$). In contrast, Democrats stated that they believed that Republicans ($\mu=3.41$) were more influenced than were Democrats ($\mu=2.94$). Consistent with the third-person effect, these results show that Republicans as well as Democrats expressed the belief that supporters of the opposing party are more influenced by targeted political advertisement than are 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 of targeted political advertisement 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 indicates that supporters of both parties believe that the opposing party benefits more from the use of targeted political advertising than does their own, and therefore they perceive such advertising as harmful to their partisan self-interest. The size of the belief gap between one’s own party and the other party is correlated to different attitudes that participants hold. We found a significant positive correlation between this gap and higher levels of affective and ideological polarization, perceived desirability of the advertising, and high subjective political knowledge. Participants holding a more negative view of the opposing party as measured on a feelings thermometer reported their belief in 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 found that the level of conservatism for Republicans and liberalism for Democrats as measured on scale for social and economic conservatism \citep{everett201312} positively correlated with their beliefs about how strongly opposing party supporters are influenced by targeted political advertising (SI Appendix SI Table 3, OLS-Regression, p<0.001). Participants who saw the advertising as more socially and culturally desirable reported a significantly smaller gap in beliefs between their own party and the 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 by political advertising is linked to a negative perception of the opposition and a more general dislike of targeted political advertising. This conclusion accords 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 correlates with the social distance to the other and a negative perception of the message. Moreover, participants who self-reported a high level of political knowledge reported a larger gap between their own party and the other party (SI Appendix SI Table 3, OLS-Regression, p=0.04). We further found that participants believed that targeted political advertising had a very small influence on themselves ($\mu=2.39$).

\subsection\*{Support for government regulation}

On average, we found that participants were 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 supported stricter regulation of targeted political advertisement. Support for stricter government regulation was higher in the baseline condition (two-sided Welch t-test, t(782), p<0.001) among participants who identified as Democrats ($\mu=5.06$) compared to Republicans ($\mu=4.59$). We further found that, on average, participants were 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 was 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 ran an OLS-regression to test whether privacy concerns and beliefs about partisan self-interest were 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 the control variables included. Table \ref{tab:Table1} shows that 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 the other party and one’s 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 assess the robustness of our findings, we also ran an OLS-regression using participants' beliefs about the effect of targeted political advertising on the opposing party and their beliefs 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 informed a randomly selected subgroup of Republicans and Democrats that Republicans benefited more from the use of targeted political advertising in the 2016 presidential election than did Democrats. Figure \ref{fig:ManipulationCheck} shows the effect that this information had on beliefs about social media interactions in the 2018 midterm election. We found that in this incentivized question, Republicans and Democrats who had not received that information reported beliefs that were qualitatively similar to the first measure of beliefs. Uninformed Republicans believed that Democrats received more interactions in the run-up to the 2018 midterm elections while uninformed Democrats believed 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, no shift was detected in their beliefs about the 2018 midterm elections ($\chi^2$-test, p=0.65). Republicans who received that information reported that they believed that Republicans received more interactions in 2018. This result represents a significant divergence in beliefs between informed and uninformed Republicans that corresponds to the information that they received ($\chi^2$-test, p=0.04). SI Figure 15 and SI Figure 16 show the distribution of answers for this question.

We next determined whether the information shared with participants shifted their support for stricter regulation of targeted political advertising. In accordance with the finding that beliefs of Democrats were not significantly influenced by the information, we found no effect on support for regulation between the treatment and the control groups (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 groups. With Republicans, we found significantly lower support for stricter regulation of targeted political advertising between the treatment and the control groups (two-sided Welch t-test, t(776), Cohen's d=0.15, p=0.04). These effects remained qualitatively the same when examining only participants who wanted their opinions to be considered by Congress (98.7% of the sample) and participants who expressed trust in the information that they had received about the effect of targeted political advertisement (85.7% of the treatment group), although in the latter case, the effect became insignificant for Republicans (SI Appendix SI Table 5 and 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 groups.

We found 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 regarding the extent to which 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 group compared to the control group ($\Delta\_{control}=0.47$, $\Delta\_{treatment}=0.70$).

To preclude the possibility that the information about the effect of targeted political advertising changed participants' perception of how desirable such advertising is or participants' privacy concerns, we tested for significant differences in these measures. We found that, in general, participants viewed the use of targeted political advertising as undesirable ($\mu=4.66$). Comparing the ratings of the desirability of targeted political advertising for Republicans in the treatment ($\mu=4.75$) and the control groups ($\mu=4.85$), we found no statistically significant difference (two-sided Welch t-test, t(769), Cohen's d=0.05, p=0.49). The same result was found with Democrats in the treatment ($\mu=4.42$) and the control groups ($\mu=4.61$, two-sided Welch t-test, t(755), Cohen's d=0.09, p=0.20). We also found no significant differences in privacy concerns between the treatment and the control groups (two-sided Welch t-test, t(1526), d=0.06, p=0.32), for both 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 was heterogeneous between different levels of conservatism. SI Figures S19 and S20 illustrate the findings. We found that for those Republicans scoring below the median in social and economic conservatism among Republicans, the information that their party benefited from the use of targeted political advertisement did not significantly change their support for regulation compared to the same group who did not receive this 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 among Republicans scoring at or above the median in economic and social conservatism differed significantly between the treatment and the control groups (two-sided Welch t-test, t(373), Cohen's d=0.27, p=0.01). This effect can not be attributed 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 online political advertising is partially motivated by partisan self-interest. We show that both Republican and Democratic participants in our sample believed that supporters of the opposing party are influenced by targeted political advertising to a greater extent than are supporters of their own party. We found that both this belief and people's concern over privacy significantly drive people's support for policies limiting the use of such ads. Republicans who were informed about the beneficial effects of targeted online political ads for their party reported lower support for regulation than did Republicans in the control group. Therefore, we are able to show that the perception bias is causally linked to Republicans' support for stricter government regulation. This suggests that participants make a trade-off in favor of partisan self-interest and contrary to concerns about the violation of data privacy. We found that this effect is not present with all Republican participants, but is concentrated among those with the highest levels of conservatism. This finding concords with the idea that people trade-off personal costs, such as privacy concerns, against partisan self-interest. As more conservative Republicans gain more strongly from an electoral advantage for their party, they are more willing to accept violations of privacy if these violations provide their preferred party with a benefit in an election.

These results contribute to the findings of previous research examining motivations behind attitudes toward election laws. Previous work has shown that political party leaders are willing to use government regulation in ways that will increase the likelihood that they will 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 laws for voting \citep{ansolabehere2009effects, chen2013unintentional, biggers2017understanding, mccarthy2019partisanship}. To date, less is known about the way the public, as opposed to the political elite, forms their attitudes about electoral legislation \citep{biggers2019does}. While many scholars suspect that the public’s strategic motivations resemble those of party elites, there is only scarce causal evidence to support this hypothesis \citep{alvarez2011voter, stewart2016revisiting}. Most studies cannot distinguish between when the public is pursuing strategic goals and when the public is simply following party leaders‘ cues \citep{biggers2019does}. Our findings support the idea that the broader public indeed pursues goals similar to those of party elites, favors regulation based on their partisan self-interest, and supports laws that contribute to the electoral success of their preferred party.

Our findings further add to an emerging body of 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}. According to our results, participants holding the strongest policy views have the greatest reaction to the information that targeted political advertising benefits their party. This finding accords with previous findings that people are willing to accept the undermining of democratic principles if it benefits their policy goals. In our case, people’s 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 to our understanding of public attitudes towards them. This finding contributes to a wider body of literature that investigates how potentially erroneous beliefs that people hold drive their behavior \citep{malmendier2016learning, goldfayn2019expectation, lergetporer2018information, roth2019expectations, coibion2020inflation}.

This study 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 driven in part by third-person perceptions, leading to biased beliefs about their effect. This situation could lead to potentially sub-optimal policy decisions, as politicians might follow public preferences that are driven by biased beliefs. Our findings underscore the necessity of providing the public with truthful information about the effect of targeted political advertising. 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 had or will 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}. Furthermore, 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. First, this study is the first to show that a perceptual gap exists in the context of targeted online political advertising. Second, this study is 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 by showing that this decreases their support of the mitigating action, we were 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, this is the first study to show that the perceived gap between Democrats and Republicans in their perceptions of the influence of undesirable mass communication is strongly linked to affective as well as ideological polarization, and it is the first study to measure this outcome with an unincentivized and an incentivized measure.

Our results have some limitations. First, we were unable to show similar causal results for Democratic supporters. We found 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 needed to truthfully inform participants that we were not using deception in this study, we were unable to manipulate Democrats' beliefs in a way that was equivalent to that used with Republicans. Second, the main measure of interest, participants' support for stricter government regulation, indicates relatively low-scale reliability (Cronbach's $\alpha=0.67$). In the SI Appendix Tables S7 and 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.

This paper develops a new experimental paradigm to study people's attitudes towards technological change that has an influence on elections. We show that support for or opposition to the regulation of new technology that has implications for the political process is driven by potentially biased beliefs about how the use of this technology affects political outcomes for one's preferred party. Therefore, our findings add to a growing policy debate and underscore the necessity of making the effects of targeted political advertising transparent and of truthfully informing the public about the effects of the new technology so that the public can fully and knowledgeably realize their true attitudes. We believe that more research is necessary to fully understand the public's attitude towards these innovations, especially regarding beliefs about the spread and effect of false information and divisive messages. Further, our result indicating that people take into account the broader societal effects of targeted advertising might have implications for certain aspects 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, such as 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 recruit Republicans and Democrats, as Dynata collaborates with L2, the largest voting tracking service in the United States. Therefore, we were able to recruit Democrats and Republicans for whom party affiliation was partially verified by their actual voting behavior. That further enabled us to avoid recruiting Independents for our study.

 \subsection\*{OLS regression}

In the OLS regressions, we included only participants who answered all the questions of the survey. We estimated an OLS-regression with robust standard errors. We used participants' score on the regulation scale (standardized) as a dependent variable in all regressions. The independent variable effect on their 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 the other party is the score that Democrats gave Republicans and Republicans gave Democrats. In the main specification (Table 1), we standardized the difference between the other party and their own party as an independent variable. Privacy concerns were also standardized in the regression. Effect on self is the score participants assigned to themselves. Demographic information included age, education (dummy for above at median in the sample), income (dummy for above median in the sample), household size (dummy for more than two members), gender (male dummy variable) and a dummy for being non-white. Social media use was 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 was 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 and S10 show the main regression results with all demographic variables.