Effects of an issue-based microtargeting campaign

a small-scale field experiment in a multi-party setting

Dobber, T.; Trilling, D.; Helberger, N.; de Vreese, C.

Link to publication

Routledge
Taylor & Francis Group

Effects of an issue-based microtargeting campaign: A small-scale field experiment in a multi-party setting

Tom Dobber[a] (iD), Damian Trilling[a] (iD), Natali Helberger[b] and Claes de Vreese[a] (iD)

[a]Amsterdam School of Communication Research, University of Amsterdam, Amsterdam, the Netherlands; [b]Institute for Information Law, University of Amsterdam, Amsterdam, the Netherlands

ABSTRACT

Political microtargeting is the subject of heated societal debate but not much is known about its effects, especially in non-US contexts. Microtargeting, used by political actors to send citizens tailored messages, could have the potential to overcome barriers that make generic political messages less effective. In this article, we present a small-scale field experiment, which serves as a case study to illustrate how microtargeting's effects on citizens could be measured. The field experiment showed that receiving a microtargeted message via postal mail increased likelihood to vote for the microtargeting party, but this increase did not translate into actual votes.

Introduction

Political microtargeting (PMT) techniques are gaining popularity in European political campaigns (Anstead 2017; Dobber et al. 2017; Dommett 2019). The appeal of microtargeting is that people are potentially more responsive to messages that are personally relevant than to generic ones.

Critics of microtargeting warn of the potential for manipulation (Gorton 2016; Zuiderveen Borgesius et al. 2018), which, for instance, can occur when a political message deliberately evokes a feeling of "social pressure" or when a campaign tries to leverage feelings of fear. Another risk of microtargeting is the possibility for the infringement of citizens' privacy (Rubinstein 2014), and intellectual privacy (Richards 2015). A threat to intellectual privacy might lead to chilling effects, e.g., a citizen refrains from reading a right-wing party's manifesto online because they know that they are being monitored (see also Reiman 1995). Critics also warn for the information asymmetry between the campaign and the targeted voter (Tufekci 2014), which occurs when campaigns know a lot about the individual voter, but the voter knows (almost) nothing about the data used by the campaign to target her. In addition to this, scholars warn of the fragmentation of the public agenda. Agenda setting theory based research, pioneered by McCombs and Shaw (1972), shows how news media, by the topics they cover, influence what societal issues citizens find important. When people see microtargeted personalized advertisements, this agenda becomes less "public" and more "personal". As a result, public deliberation becomes increasingly difficult because people assign weight to a more diverse range of issues (Van der Meer 2020). Potentially, this in turn could lead to an increasing disconnect between political parties and their bases. Another risk is posed to the political party system itself: the parties with the highest budgets, can make more content, hire more online campaigners, and build a better infrastructure for their volunteers than their competitors (see Kreiss 2016). A result might be that the larger parties disproportionately profit from the affordances of microtargeting (in line with the normalization thesis, Margolis and Resnick 2000).

Proponents praise PMT's potential to interest voters in political issues that are relevant to them personally. Consequently, microtargeting could increase political participation (Zuiderveen Borgesius et al. 2018). For example, a student may be more inclined to respond to a political message about student housing than to a message about pensions, and the opposite may be true for the pensioner.

Microtargeting's threats and promises are quite salient, regardless of contexts, but present literature is strongly US-based (Bimber 2014; Endres 2016, 2020; Gorton 2016; Haenschen and Jennings 2019, 2020; Hersh 2015; Kreiss 2012, 2016; Nielsen 2012). However, the US is a rather unique context and findings are not easily generalizable to non-US contexts with different regulatory regimes, campaign budgets, and electoral systems. In this light, this study reports on results from a field experiment in an European multi-party context (the Netherlands). And, in doing so, contributes novel insights to the microtargeting debate by addressing with experimental research the following key question: To what extent do microtargeted issue-based messages affect citizens' likelihood to vote for the microtargeting party and citizens' issue salience perceptions?

The field experiment was conducted during a real election, and consisted of a pre- and a post-survey. The pre-survey served to discover which issue was most salient to the participant, and how likely participant deemed themselves to vote for specific political parties. This information helped to determine which participant should receive which stimulus message. The tailored stimulus was administered via postal mail on March 15 and March 16: a few days before the election (March 21, 2018). The post-survey was conducted right after election day to measure potential changes in vote likelihood and issue salience.

Further conceptualizing political microtargeting

Common in the description of PMT is the understanding that it requires personal information of citizens, the application of (big) data analysis, and tailoring of messages to the receiver (Gorton 2016; Hersh 2015; Rubinstein 2014; Tufekci 2014; Zuiderveen Borgesius et al. 2018). However, the literature is not clear about when regular targeting becomes microtargeting. How small does the targeted audience have to be before we speak of microtargeting? We argue that to decide whether a political actor is microtargeting, we should not look at the size of the targeted group per se. Rather, the microtargeted group should be seen as a homogeneous subgroup of a population by the political advertiser, and each homogenous subgroup should receive a tailored message. This means that microtargeting occurs on a continuum of specificity. The more specific a message is, the more it speaks to a homogenous group.

For example, German party CDU (Christian Democratic Union) targets neighborhood A in Berlin. The party decides on neighborhood A and not neighborhood B because its data show that turnout was low in the previous election but the sympathy for CDU was high. CDU sends one political message to all citizens in neighborhood A. This would be regular targeting. The CDU would microtarget when it recognizes that not all citizens in neighborhood A care about the same things. Some worry about crime, others about taxes, and others about employment. Consequently, not all citizens are equally susceptible to one omnibus message. CDU would be microtargeting when it would send several messages tailored to the issue preference of each homogeneous subgroup within neighborhood A. In doing so, CDU changes one heterogeneous group (all citizens of neighborhood A) into multiple homogeneous subgroups (i.e., citizens categorized per relevant issue). When CDU would *further* tailor the messages on the basis of, say, age, the messages would speak to even more homogeneous groups, and thus be even more microtargeted – demonstrating the continuum of specificity on which microtargeting operates.

Why could microtargeting work?

Microtargeted messages are potentially more likely to influence the recipient because they help overcome differential susceptibility. Differential susceptibility in essence means that different people respond differently to the same message. These differences are, among others, caused by variations in individual-level characteristics (e.g., prior attitudes, beliefs, values), and variations in social context (e.g., residential neighborhood) (see the Differential Susceptibility to Media effects Model DSMM, Valkenburg and Peter 2013). Microtargeting is based upon the idea of first discovering what makes people differentially susceptible to a political message, and subsequently tailoring the message to the different susceptibilities of the target audiences (see Zuiderveen Borgesius et al. 2018).

One variable explaining variations in message susceptibility is dispositionality (e.g., prior political attitudes, beliefs, and values, Valkenburg and Peter 2013). This means that media effects depend on, among others, dispositional variables such as prior perceptions of political issue salience. For example, sending a teacher information about investments in education can be expected to elicit a more positive response than sending a nurse information about investments in education. The teacher is more likely to attend to

the political message, and then respond to the message, in comparison with the nurse.

The DSMM (Valkenburg and Peter 2013) is in line with congruence theory (Aaker 1999). According to congruence theory, messages have greater impact when they are in line with the self-concept of the receiver (see Aaker 1999). When done correctly, microtargeted messages are in line with the priorities of the receiver, and congruent to their opinions, which would increase the chance of message scrutiny (to attend to the message's content) and, subsequently, the chance of influencing the message recipient (Chang 2006; Petty and Cacioppo 1986; Petty, Haugtvedt, and Smith 1995; Wheeler, Petty, and Bizer 2005; Wheeler, DeMarree, and Petty 2008). Issue-based congruent microtargeting can be an important way to appeal to the self-concept of the recipient by making a message personally salient, easy to understand, and by introducing a powerful argument on the basis of the receiver's personal situation, beliefs, behavior, and/or traits (e.g., Petty and Cacioppo 1986). Indeed, scrutinized messages have been found effective in influencing people (Petty and Cacioppo 1986; Wheeler, DeMarree, and Petty 2008).

Literature on effects of political microtargeting

The field of microtargeting research is young. While the literature is steadily growing, there is still much unknown about the actual effects of the technique. Endres (2020) found that microtargeting US voters on wedge issues (Hillygus and Shields 2009) increased support for the microtargeting candidate, and decreased support for his competitor. Lavigne (2021) found that "microtargeting" strengthens party ties. However, it remains unclear whether Lavigne actually measured microtargeting as the study operationalized "microtargeting as being contacted by the party one is likely to vote for" (769). While this way of operationalizing microtargeting would yield the advertiser a subsegment of the population, this subsegment is still too heterogeneous to be speaking of microtargeting. Rather, Lavigne (2021) seems to have measured "regular" targeting (i.e., non-micro). Hersh and Schaffner (2013), warned of negative effects of wrongly targeting an ethnic group ("mistargeting"). Haenschen and Jennings (2019) showed that online PMT ads boosted voter turnout, but only for young voters in competitive districts. Coppock, Hill, and Vavreck (2020) found that advertising effects are marginal, "regardless of context, message, sender or receiver" (1). However, the only receiver characteristic that

Coppock, Hill, and Vavreck (2020) took into account was "subject partisanship". While partisanship is an important characteristic in microtargeting, segmenting on partisanship alone does not constitute microtargeting as conceptualized in this study. Similarly to Lavigne (2021), Republicans or Democrats cannot be considered a homogeneous group.

PMT research has mostly been conducted in the American context. Its findings are not easily transferable to the European contexts (Anstead 2017; Dobber et al. 2017). Unfortunately, as of yet, there are few empirical studies on effects of PMT in a European, multiparty, context. Zarouali et al. (2020) found in a double experiment that personality-congruent political messages are more persuasive than incongruent or factual messages. Dobber et al. (2021) found that microtargeting could potentially amplify the already negative effects of deepfake disinformation.

As such, on the basis of present research we expect the following.

> H1: Running an issue-based microtargeted campaign increases the voter's likelihood to vote for the microtargeting party.

Issue salience

Microtargeted messages are often about personally salient issues. Agenda setting theory speaks of a shared public agenda, set by the topics traditional media cover (McCombs and Shaw 1972). However, we would argue that with the rise of political microtargeting techniques, the "shared" agenda of issues may become increasingly individualized. If a campaign infers which issue is (most) important to a potential voter, say "education", it would repeatedly send political information about education to that specific voter. As a consequence, the individual voter may come disproportionately in contact with one specific issue and may therefore assign more relative weight to education, and less weight to the other issues. The Dutch advisory committee on the parliamentary system has warned for microtargeting's negative impact on deliberation and the public sphere (Remkes et al. 2018; see also Moore and Tambini 2018; Reiman 1995; Richards 2015).

This fragmentation of the public agenda is arguably a threat to democracy in proportional representation systems. Proportional representation systems are meant to produce representation catering to the general interest rather than "esprit the clocher" (see Kaal 2016, 490). This also has consequences for the mandate of the elected official. If a party campaigns on

one or a few large issues (e.g., "close all coal power plants"), when elected, the mandate is clear. If a party campaigns on more issues, the mandate is increasingly unclear (see Hillygus and Shields 2009). Issue-based microtargeting might contribute to a fragmentation of the public sphere in a proportional representation system. While fragmentation is a process that occurs over a longer time-period, and likely needs more than a single-shot stimulus to be triggered, we expect the following:

> H2: Running an issue-based microtargeting campaign increases the relative salience of the issue targeted to the individual recipient.

Case and methods

Using a field experiment to study PMT comes with upsides and downsides. Different approaches are possible, and should be used in future research to get a better grasp of PMT's effects on political behavior. As such, the case that we present is only meant to give an initial insight into a PMT campaign's effects in a natural, multiparty setting, and into possible ways to measure them.

Case

This field experiment took place in the context of the 2018 municipality election in Utrecht, the Netherlands. This is a one district, proportional representation electoral system, which means that every vote counts equally. There were 16 political parties running for office. Citizens did not vote for a candidate, but for a party. Moreover, citizens did not elect a mayor, but rather the members of the municipality council. Consequently, the personalities of specific candidates typically did not take on a big role in this municipality election.

Municipality elections are second order elections, perceived by citizens as less important than national elections (Lefevere and Van Aelst 2014). The turnout for the 2018 municipal election in Utrecht was 59%. In comparison, the turnout in Utrecht for the Dutch national election was almost 84% (Municipality of Utrecht 2019).

Experimental design

To realize an optimal design, in this study we used the branding styles of two political parties: left-wing PvdA, and right-wing VVD. Our field experiment, conducted around the election day – March 21, 2018 – consisted of one pretreatment and one post treatment round of data collection. Unfortunately, there were too few VVD-participants in the sample (control *and* experimental condition $N = 21$), making analysis of VVD-participants meaningless. Hence, we only focus on the much larger experimental group of PvdA-participants who have completed the survey at T1 as well as T2 ($N = 51$), and the PvdA-leaning participants in the control condition who also completed both surveys ($N = 35$).

Our experiment consisted of one control group and one experimental group. The participants in the experimental group received one out of 6 messages (see online Appendix A), tailored to them personally. The local branch of PvdA did not send tailored messages at all during the campaign (they did not prioritize microtargeting in their campaign, and thus broadly spread issue-based messages to people).[1]

Exposure to personalized message

Exposure occurred when a respondent received a political message tailored to her most salient issue. We tailored the message on the basis of the information on the respondents' scores on issue salience, collected at T1. To determine which tailored message to send a specific respondent, we looked at which issue was most salient to her and which party had the higher vote likelihood score. If the most salient issue was, for example, "education", and the respondent's vote likelihood was highest for political party PvdA, we sent her the PvdA-message about education. When more than one issues were equally salient, we randomly selected an issue between the highest scoring issues. We took the same approach when vote likelihood scores were equal.

We phrased six different political messages. Each participant in the experimental condition received one message. After pretesting these messages [2], a professional designer crafted six designs that looked like authentic campaign material from the PvdA (see online Appendix B for the messages, and see Figure 1 for an example). The statements on the stimuli were phrased in exactly the same way the PvdA phrased their political messages, and were designed in the branding style of the PvdA. All stimuli started with the same words: "Be certain of" and were followed by a statement relating to the specific issue (e.g., "Be certain of a safe neighborhood", see online Appendix B). This way, we were able to pool the participants who were exposed to one of six different issue-based stimuli as one experimental group for our analyses. The stimuli were the size of postcards, and addressed

Figure 1. Examples of stimuli. Left: Job market: Be certain – of good work for everybody – vote March 21. Right: Health care – Be certain – of good health care in your neighborhood – vote March 21

in a white envelope with the address of the participants written on it by hand to decrease the chance that participant would regard the messages as unwanted advertising.

Sample

There were two rounds of data collection. The first round took place between January 20 and March 3 ($N=124$; $N_{-control}$ = 53; $N_{-experimental}$ = 71). The second round of data collection (took place between March 23 and May 4 ($N=86$; $N_{-control}$ = 34; $N_{-experimental}$ = 51). Data collection was carried out by the lead author and three assistants. The manipulation was administered on March 15 and March 16 via postal mail: a few days before the election (March 21, 2018).

Procedure

Before the first round of data collection began, potential respondents received a letter in which we announced our visit and explained to respondents what they could expect. These letters were sent to 1550 respondents living in the four neighborhoods of our interest, chosen because of their similar demographics (see paragraph "municipality selection"). The streets within each neighborhood were randomly chosen.

Then, we visited the potential respondents at home, and told them we were studying news consumption and political preference. While we were not actually interested in news consumption, we did not want to give away the focus of our experiment in advance (immediately after round 2 of data collection, we debriefed the participants on the true nature of the

study). We then requested them to cooperate and to consent to our processing of their data for scientific purposes. After receiving informed consent, we administered a survey in which we measured issue salience, vote likelihood, and demographic variables year of birth, education level, gender. We also asked them for their e-mail addresses (see online Appendix C for the questionnaire), and we announced that there would be a second round of data collection. After the first round of data collection, we had successfully surveyed 124 respondents (M_{age} = 49, SD_{age} = 13.49; 51% female; education: 12% was lower educated – community college or lower, 88% high – bachelor's degree or higher).

The second round of data collection accessed the same group of people as in round 1, but this time via e-mail and via post, shortly after the election (see online Appendix D for the survey of round 2). The participants who had provided us in round 1 with their e-mail addresses received an invitation for an online survey. Those who had not, received a survey via postal mail, an accompanying letter, and a return envelope. To increase responses, we sent two reminders via post or e-mail. To further increase response, we visited the "non-respondents" at home and, if they were home, administered the survey right away. If the specific non-respondent was not home, we delivered a hand-written note in which we kindly asked them to fill in the survey (we also added the survey, together with a return envelope). In this second round of data collection, 86 people participated (retention rate 69%). The demographics of the respondents who answered our survey questions twice are similar to those in round 1 (M_{age} = 50, SD_{age} = 12.92; 55% female; education: 8% community college or lower, 92% bachelor's degree or higher), but do differ from the general population, especially regarding education level (μ_{age} = 41.5; 50% female; 70% community college or lower, 30% bachelor's degree or higher).

Issue salience

This variable was measured as follows at T1 and T2: "Could you indicate for the following issues, which are part of the tasks of the municipality, how important those issues are for you personally? The score of 1 stands for not at all important, and the score of 10 stands for very important. You can also answer "I don't know". We then listed the following six issues: crime (M=9.33, SD = .82, $N=6$), integration (M=7.50, SD = 1.41, $N=8$), job market (M=8.67, SD = .82, $N=6$), quality of health care (M=6.75, SD = 1.04,

$N = 8$), quality of education (M = 7.58, SD = 1.62, $N = 12$), housing market (M = 7.55, SD = 2.25, $N = 11$)[3].

Vote likelihood

This variable was measured at T1 and T2. At T1, we asked the following question: "Could you indicate the likelihood that you will cast your vote for the following parties for the coming municipality elections?" At T2, after the elections, we asked: "Could you indicate the likelihood that you would have cast your vote for the following parties for the recent municipality elections?" At T2, we also asked for which party the participant had cast their vote. But "actual vote" was a less useful measure because there were 16 parties running in the election. The chance that a participant voted for PvdA is slim, while their vote likelihood for PvdA could have changed regardless. But this change would not be registered if we only looked at actual vote.

The vote likelihood item was measured on a 1-10 scale, where 1 stood for the lowest likelihood. To keep the survey relatively short, we did not ask the respondents to indicate their vote likelihood for all 16 competing parties, but only for the PvdA, the VVD and also the center-Christian party CDA. This way, we could tell the respondents that we were only interested in the classic leftist (PvdA), center (CDA), and rightist (VVD) parties, without raising suspicion about our upcoming PvdA messages.

Debriefing

We explained that we had sent respondents a tailored message and, in broad terms, explained the objective of the study. We also provided contact information of the first author and of the university's ethical committee.

Municipality selection

Together with the local branch of PvdA, we determined 4 neighborhoods in Utrecht where electoral turnout is generally high and socio-demographics are comparable. These neighborhoods were: Oud Hoograven, Zeeheldenbuurt, Wittevrouwen, and Wilhelminabuurt. We aimed for neighborhoods with high turnout, because we expected higher participation rates there[4]. There are 270,000 eligible voters in the city of Utrecht. There were 16 parties running for a seat in the municipality council.

Message appeal

Next to the successful pretest earlier, we measured at T2 to what extent the respondent found the message

appealing: "Could you, apart from your opinion about the party behind the message, indicate to what extent this message appeals to you personally?" This item was measured on a 7-point scale where 1 stands for "absolutely not appealing" and 7 stands for "absolutely appealing" (M = 5.24; SD = 1.64). Comparing the six tailored messages of the experimental group, using an ANOVA, we found no significant differences in the extent to which they found their tailored messages appealing: $F(5, 43) = 0.62$, $p = .68$. The mean score shows the respondents found the stimuli on average quite appealing. The ANOVA indicates that the appeal does not differ significantly between the six tailored messages.

Randomization check

There were no significant differences between the control group and the experimental group regarding gender at T1 ($t(122) = .93$, $p = .36$, age ($t(123) = -.78$, $p = .44$, and education ($t(122) = -.13$, $p = .90$). Moreover, at T1, the experimental (M = 5.04, SD = 2.87) and the control group (M = 4.96, SD = 2.77) scored similarly on their vote likelihood for the PvdA: $t(122) = -.16$, $p = .88$.

Similarly, at T2 - after the treatment, there were no significant differences between the control group and the experimental group regarding gender ($t(83) = .28$, $p = .78$, age ($t(84) = -.55$, $p = .58$, and education ($t(83) = .26$, $p = .79$).

Power

This field experiment is based on a small sample ($N = 86$). This is due to the difficulties of recruitment and convincing participants to respond to the survey twice, over a relatively long period of time. An a-priori power analysis yielded a total sample of 91 (based on a significance level of $\alpha = .05$, a small effect size = .15, and a statistical power of $(1-\beta) = 0.80$). This experiment is slightly underpowered. Thus, not finding an effect would come with a somewhat too high probability of making a type 2 error (slightly more than 20%, where 20% is standard practice: see Cohen 1988). But since we maintain a significance level of 5%, finding an effect would not suggest a type I error. In fact, the chance of finding an effect while the effect is not there in the population is still 5% or less.

Results

An OLS regression analysis showed that, for the participants in the experimental group, receiving the

Table 1. OLS regression detailing effect stimulus on likelihood to vote for PvdA at T2.

	Model 1	Model 2
Constant	109.71* (44.17)	84.67** (31.41)
Condition[†]	1.20* (.56)	1.06** (.41)
Gender	.72 (.58)	.20 (.42)
Year of birth	−.05* (.02)	−.04** (.02)
Educational background	.35 (.29)	.21 (.23)
Vote likelihood T1		.63*** (.07)
R-squared	.11	82
Adj. R-squared	.07	.57
Number of observations	83	82

$***p < 0.001$; $**p < 0.01$; $*p < 0.05$; [†]control = 0, experimental = 1.

stimulus had a significant positive effect on participants' likelihood to vote for the PvdA. Even when controlling for T1 vote likelihood scores, gender, year of birth and educational background (measured before treatment), the PvdA experimental group had significantly higher vote likelihood scores after treatment at T2 (M = 6.39, SD = 2.42) than the control group (M = 5.35, SD = 2.92). These findings support hypothesis 1 (Table 1).

Actual votes

There were 6 participants in the control condition who casted their vote for PvdA. There were 7 participants in the experimental group who casted their vote for PvdA (t(77) = .45, p = .33). The increase in vote likelihood did not significantly translate into extra votes for PvdA.

Receiving the stimulus decreased the likelihood to vote for traditional center Christian party CDA as well as for rightist party VVD, but not significantly (p_{-CDA} = .28; p_{-VVD} = .23; see online Appendix E).

Issue salience

Turning to issue salience, we encountered a "ceiling effect". About 10% of the scores at T1 could not increase further. To overcome this, we calculated a "relative issue salience score" (score of most salient issue at T1/all issue salience scores combined). An

OLS regression showed no significant differences in relative issue salience between the experimental group and the control group at T2, while controlling for their relative issue salience score at T1 (see Table 2). This means hypothesis 2 is rejected.

Conclusion

In this article, we conceptualized PMT, and we set out to show how it could be studied in a real multiparty election context. This study is meant to be a springboard for future research and gives a first, but not definitive insight into effects of microtargeting in a multi-party context. As such, it is prudent to first discuss the study's limitations, and then further contextualize the findings.

Limitations

A limitation of our study is the composition of our sample: predominantly higher educated participants, who live in Utrecht, and who are active voters. It must be noted, however, that this experiment aimed to provide a "proof of concept" of the effectiveness of a microtargeting campaign in a European setting. The study only includes the participants who were a priori more inclined to vote for leftist PvdA than for rightist VVD. These "leftist" participants received a congruent message, in line with congruence theory (Aaker 1999). This approach, as opposed to the approach with a sample more representative of the general population, was desirable to keep the design realistic. Targeted ads are almost always aimed at those that are somewhat "persuadable", because these are easy groups to persuade for advertisers (and perhaps also the only ones that they can persuade with an ad; see e.g., Rekker and Rosema 2019). In other words: campaigns do not use microtargeted advertisements to persuade a rightist citizen to vote for a leftist party. They target "persuadables" in the hope of giving them that last push.

Another limitation is that participants received only one stimulus. Sending more stimuli would have increased the chance that more people saw the

Table 2. OLS regressing detailing effect stimulus on issue salience.

Relative issue salience score (T2)	B	SE	t	p	95% CI
Relative issue salience score T1	.44	.10	4.30	<.001	.24 − .65
Condition*	−.001	.003	−.35	.73	−.01 − .01
Constant	.08	.02	4.93	<.001	.05 − .11

N = 82. *control = 0, experimental = 1; R^2=.19.

stimulus. Moreover, it is rare to find a relatively long-lasting effect in a field-experimental setting, as research by Gerber et al. (2011), and Hill et al. (2013) shows. Microtargeting in general consists of sending more than one tailored message. A single shot stimulus can be expected to yield only weak effects.

The stimulus itself was text only. While the PvdA-stimuli at the time resembled the current study's stimuli, political messages are often not text-only. But this design was warranted because we wanted to isolate the issue-cue, and thus, we could not afford to include different kinds of potentially appealing (and confounding) cues in our stimuli. Moreover, the stimulus was sent through postal mail only. Typically, campaigns use a mix of online and offline methods to reach voters.

The study suffered from high levels of non-response. Out of a pool of 1,550 potential participants, only 124 people participated in the first round of data collection. This does not mean that 1,426 people refused to cooperate: many people were simply not at home. Also, we randomly chose streets within each neighborhood. We did not have the resources to visit each house in each neighborhood.

We asked participants about whether they were more left-leaning or right-leaning, and which issues were most salient to them. But we did not know whether participants actually agreed with the content of the political message. The assumption is that a left-leaning participant who cares most about education indeed agrees with the leftist party's education position. This is a problem that real political parties also face: they may pretest a message, but sometimes a message resonates not as well as intended.

This study looks at issue salience cues, but not at emotional or psychographic forms of microtargeted messaging. While issue-based microtargeting is a salient form of targeting, the public debates centers on emotional or psychological microtargeting.

Taken together, given such limitations, this study is not a definitive empirical study but rather should be seen as a prototype for how microtargeting in real-life settings can be studied in the future – and which pitfalls to avoid.

Discussion

Similar to Endres (2020), who found Republican messages microtargeted to Democratic partisans increased support for the Republican candidate, the present study finds that a microtargeted message increases citizens' vote likelihood. Different from Endres (2020), who studied voters who were cross-pressured on a

congruent issue, this current study focused on citizens' most salient issue. Moreover, where Endres also found a decrease in partisan support for the competing candidate, this current study finds no significant decrease in likelihood to vote for competing parties CDA and VVD. Moreover, contrary to Haenschen and Jennings (2019), this study finds that the microtargeted message affected younger people less than older people.

Different from Hersh and Schaffner (2013), Hersh (2015), Endres (2020), and Haenschen and Jennings (2019), the present study was set in a European, multiparty context. While PMT increased participants' vote likelihood, this did not translate into actual votes for the microtargeting parties. We attribute this to the presence of 16 competing parties. Participants most likely already had a preferred political party (that was not the PvdA), or at least had settled on a consideration set of parties for which they wanted to vote (see Rekker and Rosema 2019). Thus, the multitude of parties likely inoculated the system from too large effects of the microtargeting campaign. This indicates that the risk of manipulation, as identified by European-based scholars Zuiderveen Borgesius et al. (2018), is present but should not be exaggerated. On a large scale, individual voters may be influenced within their consideration set, but it is doubtful whether this influence is so large that it turns into manipulation. Microtargeting does not occur in a vacuum, and even in a second-order election, there are many different information sources (e.g., news coverage, interpersonal talks) that could influence citizens' attitudes and perceptions.

The results do indicate that small budgets (in comparison with US campaigns) can go a long way. A single tailored message was enough to move the needle on vote likelihood in this Dutch second order election. It is rather unlikely that US campaigns can have the same impact with a single tailored issue-based message. Moreover, as Kruschinski and Haller (2017) and Dobber et al. (2017) have shown, in Germany and the Netherlands, political campaigns use door-to-door visits to collect data about the electorate. This study shows that such door-to-door data can be leveraged into effective microtargeted messages.

Issue salience

We found no significant effects of microtargeting on issue salience. In part, we can attribute this to our relatively small number of observations: a consequence of our decision to conduct a field experiment rather than an online experiment. It proved very difficult, time consuming, and expensive to get the same person

to answer a survey twice, and therefore a larger *N* was not feasible. Moreover, the fragmentation of the public agenda is a process that likely takes much longer to manifest itself than can be measured in one second order election, or manipulated by a single-shot stimulus. Potentially, the "public agenda" is more of a national phenomenon than a local one. Citizens may be less up to speed with the local issues that the municipality faces, which is in line with the second order nature of municipality elections (Lefevere and Van Aelst 2014).

Future research

Future research should not send only one stimulus, but should actively retarget over a longer period of time. Moreover, stimuli should vary on more dimensions than text only. Future research could manipulate images, colors, logo's, in addition to text. Furthermore, future studies could focus on emotional or psychographic targeting rather than on issue-based targeting. Since digital intermediaries such as Facebook and Google provide valuable and easy-to-use infrastructure for large-scale microtargeting, future research should focus on the effectiveness of political microtargeting on these platforms. Ethical research standards are rather important, especially when studying this on a large scale and during an actual election.

This study was the first European-based field experiment to examine the effects of political microtargeting on vote likelihood in multiparty setting, and as such, ads novel empirical evidence to the field of political microtargeting research. The findings from this study can help better understand PMT and help come with ways to limit PMT's threats, while maximizing its potential.

Notes

1. The original design also included a "Facebook" and a "Facebook + mail" condition. However, this part of the study is not reported here as the attempt to buy and place the ads in the Facebook auction, via the custom audiences function, did not succeed. As a result, we can only compare and report the "personalized ad via mail" vs the control condition in this article. The current set-up still allows us to observe the mechanism of microtargeting: tailoring several messages to subgroups of a population.
2. *N* = 31. All messages sufficiently referred to the specific issues they were meant to refer to. See online appendix B.
3. These are the scores of round 2.
4. We consider the consequences for the representativeness of our sample not problematic, as this field experiment

provides a proof of concept of microtargeting's potential effectiveness in multiparty elections. It is very difficult to achieve a representative sample when conducting a field experiment. We aimed for a larger sample instead of a slightly more representative sample.

ORCID

Tom Dobber http://orcid.org/0000-0002-6657-4037
Damian Trilling http://orcid.org/0000-0002-2586-0352
Claes de Vreese http://orcid.org/0000-0002-4962-1698

References

Aaker, J. L. 1999. The malleable self: The role of self-expression in persuasion. *Journal of Marketing Research* 36 (1):45–57. doi: 10.2307/3151914.

Anstead, N. 2017. Data-driven campaigning in the 2015 United Kingdom general election. *The International Journal of Press/Politics* 22 (3):294–313. doi: 10.1177/1940161217706163.

Bimber, B. 2014. Digital media in the Obama campaigns of 2008 and 2012: Adaptation to the personalized political communication environment. *Journal of Information Technology & Politics* 11 (2):130–50. doi: 10.1080/19331681.2014.895691.

Chang, C. 2006. Seeing the small picture: AD-self versusad-culture congruency in international advertising. *Journal of Business and Psychology* 20 (3):445–65. doi: 10.1007/s10869-005-9011-4.

Cohen, J. 1988. *Statistical power analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum Associates.

Coppock, A., S. J. Hill, and L. Vavreck. 2020. The small effects of political advertising are small regardless of context, message, sender, or receiver : Evidence from 59 real-time randomized experiments. *Science Advances* 6 (36):eabc4046. Accessed September 23, 2022. doi: 10.1126/sciadv.abc4046.

Dobber, T., N. Metoui, D. Trilling, N. Helberger, and C. H. de Vreese. 2021. Do (microtargeted) deepfakes have real effects on political attitudes? *The International Journal of Press/Politics* 26 (1):69–91. doi: 10.1177/1940161220944364.

Dobber, T., D. Trilling, N. Helberger, and C. H. de Vreese. 2017. Two crates of beer and 40 pizzas: The adoption of innovative political behavioural targeting techniques. *Internet Policy Review* 6 (4):1–25. doi: 10.14763/2017.4.777.

Dommett, K. 2019. Data-driven political campaigns in practice: Understanding and regulating diverse data-driven campaigns. *Internet Policy Review* 8 (4):1–18. doi: 10.14763/2019.4.1432.

Endres, K. 2016. The accuracy of microtargeted policy positions. *PS: Political Science & Politics* 49 (04):771–4. doi: 10.1017/S1049096516001645.

Endres, K. 2020. Targeted issue messages and voting behavior. *American Politics Research* 48 (2):317–28. doi: 10.1177/1532673X19875694.

Gerber, A. S., J. G. Gimpel, D. P. Green, and D. R. Shaw. 2011. How large and long-lasting are the persuasive effects of televised campaign ads? Results from a randomized field experiment. *American Political Science Review* 105 (1):135–50. doi: 10.1017/S000305541000047X.

Gorton, W. A. 2016. Manipulating citizens: How political campaigns' use of behavioral social science harms democracy. *New Political Science* 38 (1):61–80. doi: 10.1080/07393148.2015.1125119.

Haenschen, K., and J. Jennings. 2019. Mobilizing millennial voters with targeted Internet advertisements: A field experiment. *Political Communication* 36 (3):357–75. doi: 10.1080/10584609.2018.1548530.

Haenschen, K., and J. Jennings. 2020. Digital contagion: Measuring spillover in an Internet mobilization campaign. *Journal of Information Technology & Politics* 17 (4):376–91. doi: 10.1080/19331681.2020.1748786.

Hersh, E. D. 2015. *Hacking the electorate: How campaigns perceive voters*. New York: Cambridge University Press. doi: 10.1017/CBO9781316212783.

Hersh, E. D., and B. F. Schaffner. 2013. Targeted campaign appeals and the value of ambiguity. *The Journal of Politics* 75 (2):520–34. doi: 10.1017/S0022381613000182.

Hill, S. J., J. Lo, L. Vavreck, and J. Zaller. 2013. How quickly we forget: The duration of persuasion effects from mass communication. *Political Communication* 30 (4):521–47. doi: 10.1080/10584609.2013.828143.

Hillygus, D. S., and T. G. Shields. 2009. *The persuadable voter: Wedge issues in presidential campaigns*. Princeton, NJ: Princeton University Press.

Kaal, H. 2016. Politics of place: Political representation and the culture of electioneering in the Netherlands, c.1848–1980s. *European Review of History: Revue Européenne D'histoire* 23 (3):486–507. doi: 10.1080/13507486.2015.1086314.

Kreiss, D. 2012. *Taking our country back: The crafting of networked politics from Howard Dean to Barack Obama*. New York: Oxford University Press.

Kreiss, D. 2016. *Prototype politics: Technology-intensive campaigning and the data of democracy*. New York: Oxford University Press. doi: 10.1093/acprof:.Oso/9780199350247.003.0001.

Kruschinski, S., and A. Haller. 2017. Restrictions on data-driven political microtargeting in Germany. *Internet Policy Review* 6 (4):1–23. doi: 10.14763/2017.4.780.

Lavigne, M. 2021. Strengthening ties: The influence of microtargeting on partisan attitudes and the vote. *Party Politics* 27 (5):965–76. doi: 10.1177/1354068820918387.

Lefevere, J., and P. Van Aelst. 2014. First-order, second-order or third-rate? A comparison of turnout in European, local and national elections in the Netherlands. *Electoral Studies* 35:159–70. doi: 10.1016/j.electstud.2014.06.005.

Margolis, M., and D. C. N. Resnick. 2000. *Politics as usual: The cyberspace "revolution"*. Thousand Oaks, CA: Sage.

McCombs, M. E., and D. L. Shaw. 1972. The agenda-setting function of mass media. *The Public Opinion Quarterly* 36 (2):176–87. doi: 10.1086/267990.

Moore, M., and D. Tambini, eds. 2018. *Digital dominance : The power of Google, Amazon, Facebook, and Apple*. New York: Oxford University Press.

Municipality of Utrecht. 2019. Utrecht monitor. Accessed October 4, 2022. https://www.utrecht-monitor.nl/bevolking-bestuur/burgerparticipatie/verkiezingen

Nielsen, R. K. 2012. *Ground wars: Personalized communication in political campaigns*. Princeton, NJ: Princeton University Press. doi: 10.1080/10584609.2013.749620.

Petty, R. E., and J. T. Cacioppo. 1986. The elaboration likelihood model of persuasion. *Advances in Experimental Social Psychology* 19:123–205. doi: 10.1016/S0065-2601(08)60214-2.

Petty, R. E., C. P. Haugtvedt, and S. M. Smith. 1995. Elaboration as a determinant of attitude strength: Creating attitudes that are persistent, resistant, and predictive of behavior. In *Attitude strength: Antecedents and consequences*, ed. R. E. Petty and J. A. Krosnick, 93–130. Mahwah, NJ: Lawrence Erlbaum.

Reiman, J. H. 1995. Driving to the panopticon: A philosophical exploration of the risks to privacy posed by the highway technology of the future. *Computer & High Technology Law Journal* 11 (1):27–44.

Rekker, R., and M. Rosema. 2019. How (often) do voters change their consideration sets? *Electoral Studies* 57:284–93. doi: 10.1016/j.electstud.2018.08.006.

Remkes, J. W., C. C. van Baalen, E. E. Janse de Jonge, J. Kohnstamm, R. A. Koole, E. F. Lagerwerf-Vergunst, T. W. G. van der Meer, and A. C. Quik-Schuijt. 2018. *Lage Drempels, Hoge Dijken: Democratie en Rechtsstaat in Balans, Eindrapport van de staatscommissie parlementair stelsel*. Amsterdam: Boom Uitgevers.

Richards, N. M. 2015. *Intellectual privacy: Rethinking civil liberties in the digital age*. New York: Oxford University Press.

Rubinstein, I. R. 2014. Voter privacy in the age of big data. *Wisconsin Law Review* 2014 (5):861–936.

Tufekci, Z. 2014. Engineering the public: Big data, surveillance and computational politics. *First Monday* 19 (7):1–14. doi: 10.5210/fm.v19i7.4901.

Valkenburg, P. M., and J. Peter. 2013. The differential susceptibility to media effects model. *Journal of Communication* 63 (2):221–43. doi: 10.1111/jcom.12024.

Van der Meer, T. 2020. Microtargeting en de bescherming van de publieke sfeer. In *Doen, durven of de waarheid?: Democratie in digitale tijden*, eds. J. de Ridder, R. Vliegenthart, & J. Zuure, pp. 237–287. Amsterdam, Netherlands: Amsterdam University Press.

Wheeler, S. C., K. G. DeMarree, and R. E. Petty. 2008. A match made in the laboratory: Persuasion and matches to primed traits and stereotypes. *Journal of Experimental Social Psychology* 44 (4):1035–47. doi: 10.1016/j.jesp.2008.03.007.

Wheeler, S. C., R. E. Petty, and G. Y. Bizer. 2005. Self-schema matching and attitude change: Situational and dispositional determinants of message elaboration. *Journal of Consumer Research* 31 (4):787–97. doi: 10.1086/426613.

Zarouali, B., T. Dobber, G. de Pauw, C. de Vreese. 2020. Using a personality-profiling algorithm to investigate political microtargeting: Assessing the Persuasion effects of personality-tailored ads on social media. *Communication Research* 1–26. doi: 10.1177/0093650220961965.

Zuiderveen Borgesius, F. J., J. Möller, S. Kruikemeier, R. Ó Fathaigh, K. Irion, T. Dobber, B. Bodo, and C. H. de Vreese. 2018. Online political microtargeting: Promises and threats for democracy. *Utrecht Law Review* 14 (1):82–96. doi: 10.18352/ulr.420.