

Can Authoritarian Propaganda Compete with the Opposition on Social Media?

Experimental Evidence from Russia

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March 31, 2023

Abstract

This paper probes the persuasive power of authoritarian propaganda on social media and compares it to a similar campaign by the opposition. We carried out a field experiment during the 2018 presidential elections in Russia by collecting voting intentions and then randomly advertising a pro- and anti-regime YouTube video during a telephone survey shortly before the elections. During a follow-up interview after the elections, we gathered data on actual voting decisions to measure the effect of our treatments. We find that state propaganda on social media was only effective in persuading respondents who consumed exclusively offline news sources, but failed to engage respondents consuming online news and even decreased their propensity to vote for the incumbent, conditional on their dissatisfaction with the government's performance. The anti-regime video, on the other hand, consistently decreased voting for the incumbent among both groups of respondents. Our results refute a widespread belief about the potency of authoritarian propaganda by showing its inability to engage individuals outside of its traditional audience.

Keywords: Propaganda, opposition, social media, autocracy, Russia, field experiment

JEL: D72, D83, C93, P16

"If the authorities do not like what is happening on the internet, there is only one way of resisting. ... on the same Internet platform, you have to propose different answers... and collect a larger amount of supporters."

Vladimir Putin, 2011,
as quoted in [Amos \(2012\)](#)

1 Introduction

How effective is state propaganda on social media in generating electoral support for an autocrat? Can it compete with campaigns by the political opposition, which – by often involuntarily being confined to online environments – might have stronger incentives, more experience, and, therefore, an edge on social media? Surprisingly, these questions remain largely unanswered, despite the prominent role of social media in non-democratic regimes (e.g., [Bjola, 2017](#)). On the one hand, the existing literature shows that traditional propaganda excels in its influence on audiences of traditional media in autocracies ([Yanagizawa-Drott, 2014](#); [Adena et al., 2015](#); [Carter and Carter, 2021](#)). If online media is simply an extension of traditional mass media, state propaganda would similarly boost electoral support for the autocrat among online audiences. On the other hand, social media users are often more skeptical towards the media in general ([Tsftati and Cappella, 2003](#)) and information from the government in particular ([Tang and Huhe, 2014](#)). Propaganda might therefore persuade them less than consumers of traditional media or might even backfire. At the same time, social media in autocracies often remain the last refuge of the political opposition, whose survival depends heavily on their ability to use online platforms for political persuasion ([Zhuravskaya et al., 2020](#); [Dollbaum, 2021](#)). Yet there is little evidence on how much influence an opposition campaign on social media can exert relative to state propaganda.

Whether state propaganda can increase electoral support for the incumbent and whether it is more persuasive than competing messages from the opposition are two empirical questions that we attempt to answer in this paper. We conducted a field experiment around the

2018 presidential elections in Russia – a typical electoral autocracy where control of information and censorship play a central role in the survival of the regime (Frye, 2021; Guriev and Treisman, 2022). Our empirical approach exploits an unanticipated attempt by the Russian government to launch a viral video on the social media platforms VKontakte, Odnoklassniki and YouTube, ten days before the 2018 presidential elections. The video in form of a documentary about Vladimir Putin’s role in world politics was “leaked” by one of Russia’s chief propagandists, Vladimir Solovyov, on social media. Although the “leaked” movie was heavily advertised on Russian state TV, it remained available exclusively on social media until after the elections, making it an ideal treatment for studying a social media propaganda campaign.¹

It is highly likely that the video was an attempt by Russia’s state propaganda machine to counter the campaign of a popular Russian opposition leader Alexei Navalny, particularly his video about the concealed wealth and corruption of Russian Prime Minister and close Putin associate Dmitry Medvedev.² Released on March 2, 2017, on YouTube, a year before the elections, Navalny’s video had been an instant success, receiving over 7 million views during the first week and inciting political protests all across the country (Glazunova, 2020, 2022; Dollbaum, 2021).

The release of the movie coincided with the start of Alexei Navalny’s presidential campaign, which was eventually blocked when state authorities denied Navalny the status of an official candidate. Despite being denied participation in the elections, Navalny’s vibrant grass-roots campaign in addition to his viral videos on YouTube left a noticeable dent in the regime’s popularity, inciting it to provide a symmetric response to gain back influence on social media. It is these two campaigns, and their influence on an online audience and elec-

¹State-controlled media did not broadcast this movie until after the elections, but still advertised the “leaked” movie. For an example of such an advertisement on Russian news media, see <https://ura.news/articles/1036274164> or <https://www.vesti.ru/article/1425932>.

²The author and director of the movie, Vladimir Solovyov, stated that the production started about a year before it was released, shortly after the publication of the opposition video about Dmitry Medvedev.

toral support for the incumbent president, that we compare in this paper. We hypothesize that the pro-regime video would encourage voters to vote for Putin, while the anti-regime video would reduce electoral support for the president. As an additional hypothesis, we also investigate the potential moderating influence of satisfaction with the regime on the effects of both campaigns.

To test the effect of both videos on voting in a real-life setting, we carried out a field experiment by asking the respondents of a telephone survey in six Russian provincial cities about their voting intentions a couple of days before the 2018 presidential elections. We then randomly treated them with an advertisement for one of the two movies. Shortly after the elections, we contacted the respondents again and asked them how they actually had voted during the election. Our setting permits us to test if our treatment was able to change previously stated voting intentions.

We find that advertising the pro-regime movie did not change the likelihood of voting for Putin, while the anti-regime treatment reduced votes for Putin by 9 percentage points. As previous research has shown a differential effect of propaganda on consumers of offline and online news ([Enikolopov et al., 2022](#)), we split the sample into two subgroups: respondents whose news sources normally include the internet and social media, and respondents consuming news only from traditional media sources, such as TV and newspapers. We find that the pro-regime treatment successfully increased votes for Putin by 12% among consumers of offline news, in line with the previous literature on the effectiveness of propaganda. Among consumers of online news, however, the effect was negative, but not statistically significant. The opposition campaign, on the other hand, retained its negative effect both among consumers of offline and online news, with the confidence interval being slightly larger for the offline group.

Our findings present novel evidence that pro-regime propaganda on social media has a very limited reach outside of its traditional audience of offline news consumers. Although in

this case the pro-regime movie was specifically designed to target social media users, it failed to motivate them to vote for the incumbent. The existence of a positive effect of propaganda among traditional media consumers, on the other hand, corroborates a widespread belief that propaganda remains a powerful tool for co-opting the vast viewership of state-controlled media. Our findings suggest that with an increasing number of social media users, opposition movements in authoritarian regimes might gain political support in the long run and *ceteris paribus*, thus leaving the autocrat no choice but to repress the opposition completely.³

Our paper contributes to several separate strands of literature. First and foremost, we advance the literature on how autocrats manipulate information online. While previous studies have mainly looked at internet censorship ([King et al., 2013, 2014](#); [Roberts, 2018, 2020](#)), attempts to undermine the political messages of the opposition ([Gunitsky, 2015](#); [King et al., 2017](#)), disinformation ([Tucker et al., 2018](#)) and online bots as a mean of cyber warfare at home and abroad ([Stukal et al., 2017, 2019](#); [Linvill and Warren, 2020](#)), we are the first to examine the effectiveness of propaganda on social media. Importantly, we establish a heterogeneous effect of propaganda with respect to the media consumption habits of respondents, connecting our results to an emerging literature on differential effects of political communication in online and offline environments (e.g., [Greijdanus et al., 2020](#)).

Second, we add to the ample literature on media campaigns and voting behavior that has traditionally focused almost exclusively on campaigning in democratic countries (e.g., [Gibson and McAllister, 2011](#)) and the USA in particular (e.g., [Ridout et al., 2011](#); [Hill et al., 2013](#); [Sides et al., 2021](#)), by documenting the effects of political campaigns even under minimal political competition - a setting typical for non-democratic regimes.

Finally, our findings on the ability of corruption information to reduce the electoral support of an incumbent contribute to the debate on whether exposing corruption increases

³As of the moment of writing, this prediction has already been realized for Russia. Alexei Navalny survived a murder attempt in August 2020 and was then imprisoned on politically motivated charges after his return from medical treatment in Germany in January 2021. Since then, much of Russia’s remaining political opposition has been repressed and forced to leave the country.

the electoral accountability of politicians. Our results are close to [Ferraz and Finan \(2008\)](#), [Winter and Weitz-Shapiro \(2013\)](#) and [Vera \(2020\)](#) in demonstrating that even in corrupt environments, voters punish corrupt politicians at the polling stations. Contrary to the literature that finds information about corruption to discourage voting ([Chong et al., 2015](#)), we do not find any reduction in turnout following our treatment with an anti-corruption campaign.

Our paper is organized as follows. Section 2 briefly introduces the context of the 2018 presidential elections in Russia and our experimental design. Section 3.1 presents our regression model, 3.2 presents the main results, and section 3.3 explores heterogeneous effects with respect to levels of satisfaction with the government. Section 4 concludes.

2 The Russian setting and experimental design

2.1 Presidential elections and the propaganda campaign

The winner of presidential elections in Putin’s Russia is easy to predict, as it is often the case with autocratic elections around the world. The main goal of such elections is not the selection of the most capable candidate, but, instead, signaling the incumbent’s strength via a landslide victory at the polls (e.g., [Gandhi and Lust-Okar, 2009](#); [Seeberg, 2014](#)). A landslide victory manufactured exclusively by electoral manipulation is, however, risky for the autocrat, as it often triggers protests ([Tucker, 2007](#); [Wig and Rød, 2016](#)). To make the signal credible, autocrats therefore have to additionally deploy *convincing* propaganda campaigns. The Russian political regime achieves the credibility of sweeping electoral support by supplying a remarkable volume of propaganda via state-controlled media (e.g., [Paul and Matthews, 2016](#)). However, because these media are mostly analog, state propaganda is traditionally designed to target an offline audience, often overlooking internet users.⁴

This was different during the 2018 presidential election, when Putin’s regime attempted

⁴Russia’s propaganda machine tends to influence online discourse mostly indirectly via bots, trolls, and sponsoring of famous bloggers and influencers, rather than by producing content itself.

to launch a viral online video to foster political support among online audiences shortly before the elections. For this purpose, one of Russia’s leading propagandists, Vladimir Soloveyev, produced a full-sized documentary about President Vladimir Putin and his role in world politics, and privately uploaded it to a number of social media platforms (YouTube, as well as VKontakte and Odnoklassniki, the two Russian equivalents of Facebook). The one-and-a-half-hour-long movie was filmed in the form of an interview providing Putin with a spotlight to share his views on the main issues in international politics, among which were wars in the Middle East (e.g. the wars in Syria and Lybia), the European refugee crisis, the “unlawful” expansion of NATO, Russian and international nuclear arsenals, the annexation of Crimea, and Ukrainian politics. Putin’s speech was supplemented with numerous inserts of opinion pieces from various international leaders, journalists, and policy analysts, reinforcing the credibility of the president’s words. Overall, the movie created a convincing image of the leading role of the president in world politics and emphasized how the position of Russia as a world power has strengthened since the breakup of the Soviet Union.⁵ Importantly, the movie remained available exclusively online until after the election day, indicating that it was designed to target only an online audience.⁶

The unanticipated publication of the pro-regime campaign shortly before the election and its exclusive production for an online audience made it an ideal treatment for an experimental setting to tests how propaganda on social media affects voting for an incumbent in an authoritarian regime. Since the Russian propaganda machine is specialized on traditional media over which it exerts almost full control, we expect the effect to be more pronounced for consumers of traditional media and less so for online users.

⁵The full transcript of the movie is available in English on the official website of the main Russian federal TV channel, Russia 24: <https://www.vesti.ru/article/1412734>.

⁶The movie eventually aired on the main federal TV channel one day after the election.

2.2 The opposition campaign

Like in many autocracies, the Russian opposition is forced to function on a highly uneven playing field: without access to the traditional media controlled by the state, the internet remains the only uncensored channel for political campaigning. This raises two questions: a) how well is the opposition able to convince an online audience, compared to propaganda by the state and b) would their campaign influence an offline audience if they happened to have access to it? We address both empirical questions by using an opposition campaign video as the second, alternative treatment in our experiment.

During the 2018 presidential elections, the Russian political opposition was headed by a prominent anti-corruption blogger and politician – Alexey Navalny. Navalny aspired to run for the presidency despite having very little chance of being officially registered as a candidate. To this end, he launched his electoral campaign as early as March 2017, centered around revealing the corruption of the regime – a topic around which opposition movements are often able to mobilize against autocratic regimes (e.g., [Aburamoto, 2019](#)). The campaign was kick-started by a viral online video about the corrupt affairs of the Russian Prime Minister and close Putin associate Dmitry Medvedev, posted on Navalny’s YouTube channel on March 2, 2017. This video with the title “Don’t call him Dimon” is a 49 minutes long documentary investigating the wealth of Medvedev, estimated as high as 1.2 billion dollars and financed by kickbacks from oligarchs and state-owned enterprises (e.g., Gazprom) via offshore schemes. While the main target of the film is Medvedev, Navalny clearly presents it as an example of the systemic corruption of Putin’s regime in his conclusion:

It’s time to sum up our video investigation, and the conclusion is rather sad. The former president and acting prime minister, the leader of the ruling United Russia party, has created a corrupt network of charity foundations that he uses to receive bribes from the oligarchs and spends this money to build himself palaces and dachas all across the country like some kind of maniac. He also buys yachts and medieval castles abroad. He’s not even really hiding it, because thousands of people are engaged in servicing Medvedev and his real estate. These secret palaces are guarded by the security service of the state. So, basically, the secret is only kept from you and me - from the people of

*Russia, at whose expense all of this is built, but within the corridors of power, everyone knows everything. And Medvedev can steal so much and so openly, because Putin does the same, but on a greater scale. Because everyone in the government does this. Because the judges, and the prosecutors, and the security service are also doing the same, they are becoming millionaires and billionaires with the help of corruption. And this is the main conclusion of our investigation: the system is so rotten that there is nothing healthy left.*⁷

The YouTube video received over 7 million views during the first week, and triggered massive protests around the whole country, thus increasing Navalny’s popularity and attracting a large share of new supporters (Dollbaum, 2020). It is highly likely that the success of the movie in 2017 was the reason for the state to start working on its own social media propaganda piece “New World Order 2018” discussed above, as the political elite realized the critical role of social media platforms and YouTube in particular.⁸ Eventually, Alexei Navalny was barred from running for president, but the electoral campaign and the viral video “Don’t call him Dimon” have likely shaken electoral support for Putin.

While many academic articles have studied the influence of the movie on inciting protests (Dollbaum et al., 2018; Glazunova, 2020, 2022; Litvinenko, 2021; Fomin and Nadszakula-Kaczmarczyk, 2022), none have yet attempted to estimate the electoral effect quantitatively. Our experimental design allows us not only to address this gap in the literature, but also to go beyond this step by testing the potential effect of the video on an audience of traditional media consumers, who would normally remain outside the reach of online campaigns. We are thus also able to answer the question of how persuasive Navalny’s videos could be for the Russian population in general, as if censorship had been lifted.

2.3 Experimental design

Methodology. We implemented a standard pretest-posttest experimental design using a two-wave telephone survey, before and after the 2018 presidential elections. In the first wave,

⁷The English translation is obtained directly from a dedicated web service for subtitles: https://sublikescript.com/movie/On_vam_ne_Dimon-6679360

⁸See, for example, <https://neweasterneurope.eu/2017/10/31/kremlin-sets-eyes-youtube/>

we first collected information about the individual characteristics and voting intentions for the upcoming elections and then randomly split the respondents into three groups: a control group and two treatment groups. One group was treated with information about the pro-regime video, and one with information about the opposition video. The control group received no additional information. In the second survey wave, we contacted the same respondents again and asked them about their *actual* voting behavior. This design allows us to eliminate individual biases in responding, which will cancel out when we control for intentions to participate in the election and to vote for the incumbent.

Timing and location. The pro-regime video was published on the evening of March 7, i.e. ten days before the elections. As we had already been preparing a survey for the elections, we were able to react quickly to the opportunity and to use the video as one of our treatments. We conducted the first wave of the interviews over three days on March 14-16, ending our first wave two days before the elections. The second wave was carried out a week after the elections, on March 26 and 27.⁹

We targeted the population of six medium-sized cities in the European part of Russia with a population between 100 000 and 500 000 people, as their population is more representative of the Russian population compared to citizens of Moscow, St. Petersburg, and other large cities, while internet access and social media penetration are still relatively high (compared to less urbanized areas). In this logic, we follow (Enikolopov et al., 2022).¹⁰

First wave. We interviewed 1533 respondents (about 250 respondents per city) in the first wave. The first part of the interview included questions about individual characteristics (age, gender, education, employment, income, choice of media sources for news consumption), satisfaction with the performance of the government, voting in the past parliamentary elections

⁹The survey was carried out with the help of the Levada Center, a highly respected and independent Russian pollster and sociological research company.

¹⁰The selected six cities are Bryansk, Ivanovo, Kirov, Kursk, Tula, Tver'. The geographic location is indicated in Figure A1 of Appendix A.

in 2016, and intentions to vote in the upcoming presidential elections. In the second part, all respondents were randomly allocated into three equal subgroups: 1) receiving the pro-regime treatment, 2) receiving the opposition treatment, 3) receiving no additional information (the control group).

Both treatments were in the form of questions about the pro-regime and opposition social media videos. The pro-regime treatment was formulated in the following way: “Last week, there was a new movie about Russian President Vladimir Putin “The World Order 2018” released by Vladimir Solovyov. After the first day, it achieved over 1 million views online. In this movie, Putin speaks about defending Russian interests in the world arena and about the success of Russian politics. Have you already watched this movie?.” Unsurprisingly, since the movie was uploaded on YouTube just a couple of days before our survey, 87% of the respondents reported not having seen the movie, indicating a large base for our treatment (i.e., no ceiling effect).

The second treatment was introduced with the following question: “In March 2017, the famous blogger Alexei Navalny released a movie about the wealth and corruption of the Russian Prime Minister Medvedev titled “He is not your Dimon”. As of this moment, the movie has been watched over 26 million times and has started a wave of political protest all over the country. Have you watched this movie?.” Similar to the case of the pro-regime treatment, 86% of respondents replied that they had not yet watched the movie. This was in line with our expectations that the movie was not well-known outside of the capital and large cities.¹¹

At the end of the interview, both treated groups additionally received a text message (SMS) with a link to the respective YouTube movie to ensure higher uptake rates.

We follow the intention-to-treat approach and use the distribution of the treatments in

¹¹We acknowledge a potential under-reporting bias if respondents perceived a question about a political opposition campaign that has led to protest as too sensitive; however, this bias would only lead to the underestimation of the actual effect of the anti-regime treatment.

the first wave as our main explanatory variables. Hence, the pro-regime and opposition campaign treatments are the binary variables that equal one if the respondent received the respective informational treatment.

Representativeness of the sample. The dataset constitutes a random sample, but we are able to compare the profile of the respondents to a nationally representative survey that was carried out a week before ours.¹² As Table A1 shows, the gender composition, age, and voting in the past parliamentary elections in 2016 are very similar across both surveys. However, our respondents are more likely to have a university degree, which is not surprising for an exclusively urban area such as our target location.¹³

Second wave. The second wave was carried out shortly after the election (March 26-27) with a response rate of 56% , which is significantly better than the standard rate of 40% for this type of experiment (Gerber et al., 2009; Asher, 2016), leaving us with a final sample of 862 respondents. 453 of our respondents indicate at least some form of consumption of online news, and 212 only consume news from traditional media sources such as TV and newspapers. To establish that the attrition rate was not driven by our treatments, we ran a simple regression of dropping out from the second wave on the treatment’s binary variables and found an almost precisely null effect for the full sample and the subsamples, as shown in Table A2. Further, the balance test in Tables A3 and A4 in Appendix A confirm the successful randomization of our treatments in the final sample, as well as in our subsamples of online and offline news consumption.

In the second wave, we interviewed respondents about their voting behavior in the election: their turnout and for which candidate they voted. Accordingly, we assemble our two main outcome variables as binary variables: *Individual turnout* equals one if the respondent has voted, and zero otherwise; and *Vote for Putin* equals one if the respondent has voted for

¹²The survey was carried out during March 7-12, which is at most one week away from the start of our interviews.

¹³All of the six cities have local universities providing diplomas of higher education to the local population.

Putin, and zero otherwise.

3 Regression Model and Results

3.1 Regression Model

We estimate the following probit regression model:

$$\begin{aligned}
Y_i = & \alpha + \beta_1 \textit{Pro-regime campaign}_i + \\
& + \beta_2 \textit{Opposition campaign}_i + \\
& + \beta_3 \textit{Intention to turnout}_i + \\
& + \beta_4 \textit{Intention to vote for Putin}_i + \\
& + \beta_5 \textit{Nonresponse to voting intentions}_i + \\
& + X_i + C_i + T_i + \epsilon_i,
\end{aligned} \tag{1}$$

where i indicates a respondent; Y_i is either actual turnout or self-reported voting for Putin; *Pro-regime campaign_i* and *Opposition campaign_i* are dummy variables indicating each treatment group; *Intention to turnout_i*, *Intention to vote for Putin_i*, *Nonresponse to voting intentions_i* are the intentions surveyed in the first wave and equal one if the respondent intends to vote in the upcoming election, vote for Putin, or was unable to name a candidate she or he was planning to vote for. X_i is a vector of additional controls that include gender, age, age squared, income levels, education, occupation, news sources, and past voting in the parliamentary election in 2016. C_i and T_i are fixed effects for the city and the day of the interview in the first wave, respectively. The ϵ_i is the error term.

3.2 Main Results

Figure 1 presents our main results by plotting marginal effects from estimations for the full sample and both subsamples by news consumption. To test how effective both campaigns were, we first look at the effect on self-reported voting for Vladimir Putin in Panel A. The

pro-regime campaign, surprisingly, shows a precise null result for the full sample, i.e., we find that being treated with an advertisement for the pro-regime movie did not increase voting for Putin. For the subgroup of respondents who do consume news from online sources, the effect is slightly negative, but not significant. However, once we look at the subgroup of respondents who only consume news from traditional media, the effect of our pro-government treatment becomes positive and significant, increasing votes for Putin by about 15%, which is a significant result for an electoral campaign video. In other words, the pro-government documentary *was* effective, but only for the audience its director Vladimir Solovyov is usually producing his content – a public that predominantly, if not exclusively, informs itself about the state of the world by watching state-controlled TV. It failed to produce an effect on the audience it was supposed to target, showing how Vladimir Solovyov seems to be less gifted as a propagandist when it comes to convincing a more critical online audience.

The treatment advertising the video by Alexey Navalny, on the other hand, had a strong and significant negative effect on all audiences, reducing votes for Putin by 9% for the group consuming online news, and by 10% for the group consuming exclusively offline news, with the confidence interval being slightly larger for the offline group. These results suggest that if Alexey Navalny had access to an offline audience on state-controlled TV (as would be standard in a competitive democracy), he might have had a genuine chance to play an important role during the 2018 elections.

Apart from looking at the effect of our treatments on votes for Putin, we also investigate if our treatment had effects on turnout. Panel B of Figure 1 shows our results. Here we do not find a significant effect for either treatment, even though the direction of the effects seems to go in the same direction as for effect on voting.

3.3 Heterogeneous effects by satisfaction with the government

Finally, we also look at the results of our treatments, conditional on satisfaction with the performance of the government. This permits us to test if the campaign videos we use

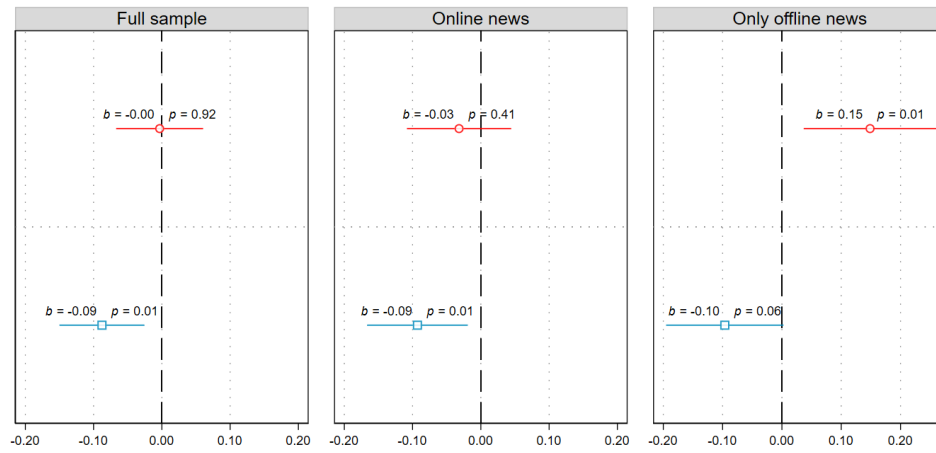
Figure 1: Effect of electoral campaigns on voting behavior

Panel A. Dependent variable: Vote for Putin

Q: Who did you vote for?

A: Vladimir Putin (1); Other answer (0).

- Pro-regime campaign
- Opposition campaign

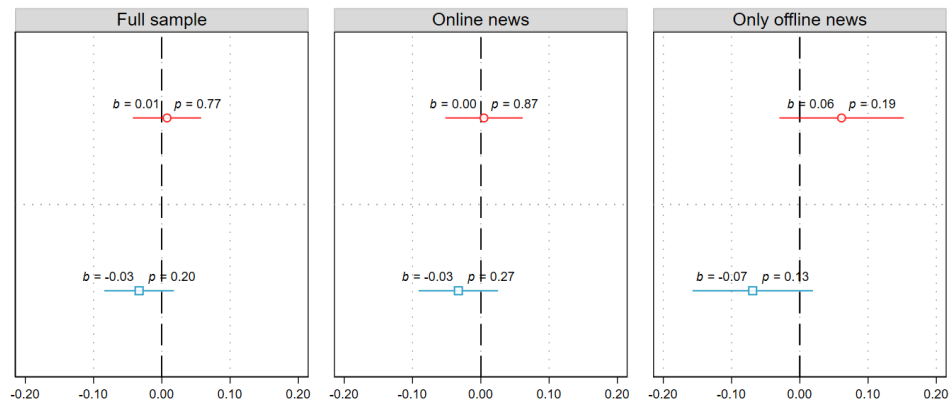


Panel B. Dependent variable: Individual turnout

Q: Did you vote in the presidential election?

A: Yes (1); No (0).

- Pro-regime campaign
- Opposition campaign



Probit, average marginal effects, 95% CI. All regressions include city and day fixed effects, intentions to vote (dummies for turnout, vote for Putin, and for providing no answer to the question), and additional controls (gender, age, age squared, income levels, education, occupation, news sources, and the past voting in parliamentary election in 2016).

as treatments were better at reinforcing existing opinions, or at convincing respondents that their previous opinions might have been ill-conceived. Both questions have important implications for current debates about the role of social media - are social media able to change opinions (and does be a valuable tool for public debate), or do they reinforce existing points of view, and might thus contribute to political polarization?

As with our main results depicted in section 3.2, we find that the results differ with respect to patterns of media consumption. Figure 2 depicts our results. For respondents who were satisfied with the government, the pro-government video only increased votes for Putin for the group of consumers of traditional news media, illustrating again the power of authoritarian propaganda when dealing with its traditional audience. It seems that even when preaching to the choir, a well-conceived propaganda video can further increase support for the regime on traditional media (refuting the hypothesis that constant propaganda can lead to saturation effects). The message was even more effective for consumers of offline news that initially were skeptical about the performance of the government, increasing support for Putin by 23%. However, when dealing with a skeptical public that was used to consuming online news, the regime campaign backfired, reducing votes for Putin by 16% for this group.

The results for the Navalny video also show an interesting pattern. For respondents who were satisfied with the regime, the opposition treatment significantly reduced the likelihood of voting for Putin, irrespective of patterns of media consumption. We hypothesize that this might be a result of the tight control over information and the media in Putin's Russia. If you are not yet aware of the deficiencies of the Putin regime, a convincing movie depicting corruption at the highest levels of the state can significantly reduce your intentions to vote for the incumbent. However, among respondents that were already dissatisfied with the government, the opposition video did not have an effect, with the exception of a negative effect on the turnout for the group of offline media consumers (Panel B). As with respect to our main results, there were no other effects of treatment on turnout, even when looking at

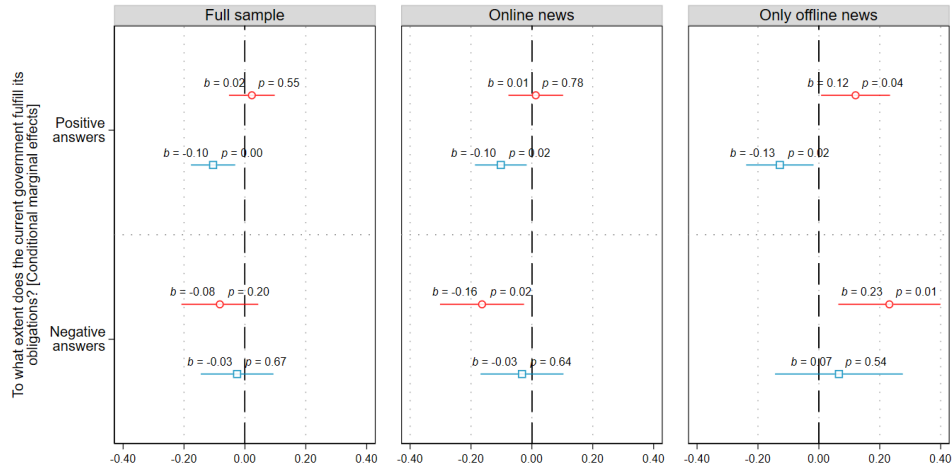
Figure 2: Heterogeneous effects of electoral campaigns

Panel A. Dependent variable: Vote for Putin

Q: Who did you vote for?

A: Vladimir Putin (1); Other answer (0).

- Pro-regime campaign
- Opposition campaign

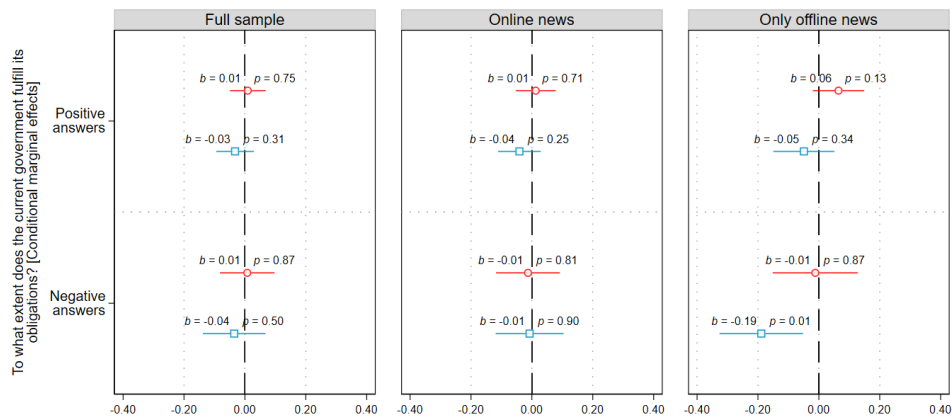


Panel B. Dependent variable: Individual turnout

Q: Did you vote in the presidential election?

A: Yes (1); No (0).

- Pro-regime campaign
- Opposition campaign



Probit, conditional average marginal effects, 95% CI.
 Positive answers include: 1) to some extent; 2) to the full extent. Negative answers include: 3) does not fulfill them; 4) does not fulfill completely.
 All regressions include city and day fixed effects, intentions to vote (dummies for turnout, vote for Putin, and for providing no answer to the question),
 and additional controls (gender, age, age squared, income levels, education, occupation, news sources, and past voting in parliamentary election in 2016).

heterogeneous effects conditional on satisfaction with the government.

4 Conclusion

This paper is the first study that investigates the effect of authoritarian propaganda on social media on actual electoral support for an autocrat. In addition, we are able to show how the effect of a propaganda campaign compares with that of a similar campaign by the opposition, allowing us to directly investigate the competitiveness of the opposition’s message on social media in an authoritarian regime. Using an experimental approach and placing our study into the context of Russia’s electoral authoritarian regime, we find three principal results.

First, the government campaign is only able to convince its traditional audience of offline news consumers but fails to produce a result on social media (even though the campaign had been specifically conceived to target social media users). Our results, therefore, suggest that authoritarian governments can have difficulties competing with a well-organized opposition campaign on social media, contradicting common beliefs about the overwhelming power of authoritarian propaganda in informational autocracies ([Guriev and Treisman, 2022](#)).

Second, we demonstrate how a well-conceived video by a political challenger can substantially dent electoral support for the incumbent in an autocracy. Our results are strengthened by the fact that we conducted our experiment in a context – mid-sized Russian cities – that usually do not feature a strong support base for the Russian political opposition. These findings suggest the main Russian opposition leader, Alexey Navalny, would have a genuine chance to contest the presidential election in 2018 if given a chance. They might also explain why the regime decided to implement a decisive crackdown on the Russian opposition, abandoning the strategy of relative tolerance that it had implemented until about 2019.

Finally, we show that patterns of media consumption are important when interpreting the effects of propaganda on electoral outcomes, providing a relevant building block for future studies on the question.

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Appendix

Figure A1: Cities in the experiment, European part of Russia

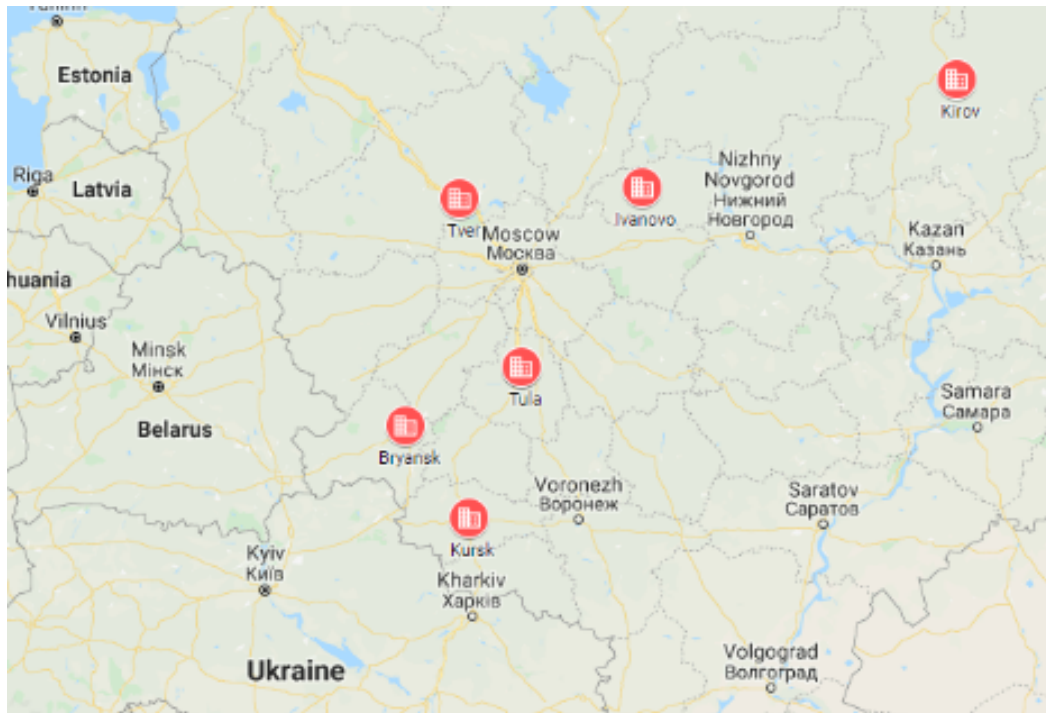


Table A1: Comparison of demographics between our survey sample and a separate representative survey)

	(1) Our sample	(2) Representative sample	(3) P-value
Personal characteristics			
Gender (Male)	0.46	0.45	0.81
Age in years	45.59	46.47	0.13
Previous voting (Duma elections 2016)			
Turnout, 2016	0.56	0.58	0.29
Voted United Russia, 2016	0.71	0.72	0.90
Education level			
University degree	0.41	0.27	0.00***
Observations	1533	1612	

Note: * indicates $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A2: Determinants of second-wave attrition

Dependent variable:	Drop out from the second wave (equals 1 if no response was not collected, 0 otherwise)											
Sample	Full sample				Online news				Only offline news			
Coefficient / P-value	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>	<i>B</i>	<i>p</i>
Pro-regime campaign	-0.02	(0.45)	-0.01	(0.72)	-0.01	(0.79)	-0.01	(0.88)	-0.05	(0.34)	-0.00	(0.95)
Opposition campaign	0.01	(0.76)	0.02	(0.46)	0.02	(0.53)	0.03	(0.38)	-0.02	(0.73)	0.01	(0.89)
Gender (male)			0.00	(0.92)			-0.01	(0.75)			0.03	(0.52)
Age in years			-0.00*	(0.04)			-0.00*	(0.03)			0.00	(0.84)
Voting intentions and previous voting												
Would vote for Putin			-0.05	(0.08)			-0.04	(0.21)			-0.08	(0.14)
Intends to vote			-0.08*	(0.03)			-0.07	(0.07)			-0.12	(0.10)
No answer			0.13**	(0.01)			0.08	(0.21)			0.31***	(0.00)
Turnout, 2016			0.00**	(0.00)			0.00*	(0.02)			0.00	(0.21)
Voted United Russia, 2016			0.01	(0.83)			0.03	(0.47)			-0.01	(0.78)
News source												
Federal TV			0.05	(0.18)			0.02	(0.69)			0.24*	(0.02)
Cable TV			0.02	(0.44)			0.03	(0.30)			-0.00	(0.97)
TV Rain			0.00	(0.95)			-0.02	(0.80)			0.04	(0.81)
Radio Echo MSK			-0.01	(0.82)			-0.01	(0.87)			-0.01	(0.88)
Radio Mayak			0.02	(0.56)			0.05	(0.12)			-0.07	(0.18)
Newspapers			-0.05*	(0.05)			-0.08*	(0.02)			0.00	(0.92)
Internet (except social media)			-0.01	(0.72)			-0.02	(0.55)				
Social media			-0.10**	(0.01)								
Employment sector												
Public			-0.22	(0.28)			-0.15	(0.48)			0.30	(0.10)
Private			-0.23	(0.24)			-0.17	(0.42)			0.32	(0.08)
Non-profit			-0.30	(0.16)			-0.28	(0.21)			0.41	(0.11)
Self-employed			-0.37	(0.07)			-0.30	(0.17)			0.08	(0.68)
Student			-0.31	(0.14)			-0.26	(0.24)				
Pensioner			-0.24	(0.24)			-0.15	(0.49)			0.25	(0.17)
Housekeeping			-0.25	(0.22)			-0.21	(0.33)			0.39	(0.09)
Unemployed, looking for job			-0.45*	(0.03)			-0.36	(0.10)			-0.02	(0.93)
Unemployed, not looking for job			-0.38	(0.10)			-0.23	(0.36)				
Education level												
Primary			0.13	(0.40)			0.10	(0.59)			0.40	(0.11)
Secondary			0.06	(0.65)			-0.06	(0.71)			0.49*	(0.04)
Technical college			-0.03	(0.86)			-0.15	(0.39)			0.35	(0.16)
Vocational education			0.02	(0.88)			-0.07	(0.62)			0.38	(0.10)
Unfinished university degree			0.03	(0.81)			-0.07	(0.66)			0.44	(0.10)
University degree			-0.00	(0.99)			-0.10	(0.49)			0.38	(0.10)
Material well being: we can afford to buy ...												
No food			-0.11	(0.23)			-0.11	(0.44)			-0.12	(0.36)
Food, not clothes,			-0.18*	(0.04)			-0.25*	(0.04)			-0.09	(0.40)
Food, clothes, not home appliances			-0.09	(0.29)			-0.15	(0.21)			-0.02	(0.87)
Food, clothes, appliances, not a car			-0.14	(0.08)			-0.22	(0.07)			-0.01	(0.95)
Food, clothes, appliances, a car,			-0.15	(0.07)			-0.19	(0.13)			-0.18	(0.14)
resources are not unlimited												
Everything			-0.08	(0.37)			-0.10	(0.45)			-0.08	(0.54)
Observations	1533		1533		1078		1078		455		453	

Note: Probit estimation; coefficients are average marginal effects; robust SE; all regressions contain city and day fixed effects; *p*-values in parentheses; * indicates $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table A3: Randomization of the pro-regime treatment (2nd wave)

	(1) Full sample			(2) Online news			(3) Only offline news		
	Control	Treated	P-value	Control	Treated	P-value	Control	Treated	P-value
Personal characteristics									
Gender (male)	0.45	0.45	0.92	0.48	0.45	0.48	0.40	0.47	0.33
Age in years	45.76	46.66	0.46	41.33	42.25	0.48	57.94	59.00	0.62
Voting intentions and previous voting									
Would vote for Putin	0.53	0.52	0.83	0.49	0.49	0.92	0.65	0.63	0.80
Intends to vote	0.85	0.84	0.84	0.82	0.83	0.73	0.91	0.86	0.25
No answer	0.06	0.04	0.29	0.06	0.05	0.67	0.06	0.01	0.13
Turnout, 2016	10.60	11.42	0.65	10.29	11.54	0.55	11.47	11.05	0.90
Voted United Russia, 2016	0.32	0.35	0.37	0.28	0.31	0.36	0.45	0.47	0.79
News source									
Federal TV	0.83	0.85	0.49	0.79	0.83	0.24	0.94	0.90	0.30
Cable TV	0.55	0.58	0.41	0.55	0.60	0.24	0.53	0.51	0.73
TV Rain	0.07	0.04	0.17	0.08	0.05	0.22	0.03	0.01	0.49
Radio Echo MSK	0.15	0.16	0.68	0.15	0.15	0.94	0.13	0.18	0.34
Radio Mayak	0.38	0.38	0.97	0.36	0.35	0.75	0.45	0.48	0.64
Newspapers	0.49	0.43	0.07*	0.46	0.39	0.10*	0.58	0.52	0.45
Internet (except social media)	0.48	0.46	0.60	0.65	0.62	0.48	0.00	0.00	.
Social media	0.59	0.61	0.64	0.81	0.83	0.56	0.00	0.00	.
Employment sector									
Public	0.19	0.21	0.64	0.19	0.25	0.13	0.19	0.10	0.06*
Private	0.28	0.26	0.62	0.34	0.29	0.26	0.12	0.18	0.21
Non-profit	0.03	0.03	0.65	0.03	0.03	0.99	0.01	0.03	0.24
Self-employed	0.10	0.09	0.73	0.11	0.09	0.53	0.06	0.08	0.64
Student	0.04	0.01	0.08*	0.05	0.02	0.07*	0.00	0.00	.
Pensioner	0.25	0.27	0.59	0.15	0.17	0.59	0.53	0.55	0.75
Housekeeping	0.06	0.06	0.68	0.07	0.09	0.45	0.02	0.00	0.21
Unemployed, looking for job	0.05	0.04	0.68	0.04	0.04	0.90	0.06	0.03	0.33
Unemployed, not looking for job	0.01	0.02	0.16	0.01	0.01	0.43	0.01	0.04	0.23
No answer	0.00	0.00	0.30	0.01	0.00	0.30	0.00	0.00	.
Education level									
Primary	0.01	0.03	0.07*	0.01	0.02	0.21	0.03	0.07	0.17
Secondary	0.10	0.08	0.27	0.09	0.09	0.81	0.13	0.05	0.09*
Technical college	0.03	0.04	0.21	0.02	0.03	0.39	0.05	0.08	0.36
Vocational education	0.37	0.38	0.93	0.35	0.35	0.86	0.45	0.44	0.92
Unfinished university degree	0.04	0.05	0.86	0.05	0.05	0.96	0.01	0.03	0.51
University degree	0.43	0.41	0.52	0.47	0.45	0.56	0.32	0.30	0.74
Doctorate	0.01	0.01	0.36	0.01	0.01	0.81	0.01	0.03	0.24
Material well being: we can afford to buy ...									
No food	0.05	0.06	0.55	0.03	0.04	0.54	0.09	0.10	0.82
Food, not clothes,	0.16	0.16	0.80	0.12	0.15	0.33	0.24	0.19	0.38
Food, clothes, not home	0.31	0.27	0.24	0.30	0.29	0.87	0.35	0.22	0.05**
appliances									
Food, clothes, appliances, not a	0.24	0.29	0.17	0.29	0.32	0.45	0.11	0.19	0.09*
car									
Food, clothes, appliances, a car,	0.16	0.13	0.30	0.18	0.13	0.08*	0.10	0.15	0.29
resources are not unlimited									
Everything	0.07	0.06	0.61	0.06	0.05	0.50	0.08	0.08	0.94
No answer	0.01	0.03	0.13	0.01	0.01	0.43	0.03	0.07	0.17
Observations	798			586			212		

Note: * indicates $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

Table A4: Randomization of the anti-regime treatment (2nd wave)

	(1)			(2)			(3)		
	Full sample			Online news			Only offline news		
	Control	Treated	P-value	Control	Treated	P-value	Control	Treated	P-value
Personal characteristics									
Gender (male)	0.46	0.43	0.40	0.47	0.46	0.84	0.45	0.36	0.20
Age in years	45.45	47.39	0.12	41.19	42.64	0.27	57.44	60.07	0.21
Voting intentions and previous voting									
Would vote for Putin	0.51	0.56	0.17	0.47	0.52	0.31	0.62	0.69	0.35
Intends to vote	0.84	0.86	0.30	0.82	0.84	0.55	0.88	0.93	0.28
No answer	0.05	0.07	0.20	0.05	0.07	0.29	0.04	0.06	0.46
Turnout, 2016	11.21	10.21	0.58	11.83	8.36	0.11	9.45	15.13	0.10*
Voted United Russia, 2016	0.33	0.33	0.91	0.29	0.29	0.96	0.46	0.44	0.84
News source									
Federal TV	0.82	0.87	0.09*	0.79	0.84	0.11	0.92	0.94	0.59
Cable TV	0.57	0.53	0.34	0.58	0.55	0.41	0.54	0.50	0.63
TV Rain	0.05	0.07	0.21	0.06	0.09	0.22	0.02	0.03	0.74
Radio Echo MSK	0.15	0.15	0.99	0.15	0.16	0.75	0.15	0.13	0.61
Radio Mayak	0.37	0.41	0.25	0.34	0.39	0.24	0.45	0.47	0.78
Newspapers	0.45	0.51	0.12	0.41	0.49	0.07*	0.56	0.56	0.99
Internet (except social media)	0.48	0.46	0.54	0.65	0.63	0.58	0.00	0.00	.
Social media	0.61	0.58	0.45	0.82	0.80	0.42	0.00	0.00	.
Employment sector									
Public	0.21	0.16	0.10	0.24	0.16	0.03**	0.15	0.19	0.48
Private	0.28	0.25	0.26	0.32	0.31	0.75	0.17	0.07	0.05*
Non-profit	0.03	0.03	0.79	0.03	0.04	0.43	0.02	0.00	0.22
Self-employed	0.10	0.09	0.70	0.10	0.11	0.88	0.08	0.04	0.27
Student	0.03	0.04	0.47	0.04	0.05	0.45	0.00	0.00	.
Pensioner	0.24	0.31	0.03**	0.14	0.20	0.05*	0.51	0.59	0.28
Housekeeping	0.06	0.06	0.88	0.08	0.07	0.90	0.01	0.01	0.99
Unemployed, looking for job	0.04	0.06	0.17	0.04	0.05	0.65	0.03	0.09	0.06*
Unemployed, not looking for job	0.02	0.01	0.32	0.01	0.01	0.42	0.03	0.01	0.53
No answer	0.00	0.00	0.59	0.00	0.01	0.58	0.00	0.00	.
Education level									
Primary	0.02	0.01	0.25	0.02	0.01	0.32	0.05	0.03	0.48
Secondary	0.08	0.13	0.03**	0.08	0.12	0.14	0.08	0.16	0.07*
Technical college	0.03	0.03	0.87	0.02	0.03	0.61	0.07	0.04	0.43
Vocational education	0.35	0.41	0.12	0.34	0.37	0.47	0.40	0.53	0.08*
Unfinished university degree	0.05	0.03	0.09*	0.06	0.04	0.21	0.03	0.00	0.16
University degree	0.45	0.38	0.07*	0.48	0.43	0.25	0.35	0.24	0.11
Doctorate	0.01	0.01	0.75	0.01	0.02	0.18	0.02	0.00	0.22
Material well being: we can afford to buy ...									
No food	0.05	0.05	0.79	0.03	0.05	0.36	0.10	0.07	0.52
Food, not clothes,	0.15	0.17	0.62	0.13	0.14	0.77	0.22	0.24	0.69
Food, clothes, not home	0.29	0.32	0.44	0.29	0.29	0.98	0.27	0.37	0.15
appliances									
Food, clothes, appliances, not a	0.29	0.20	0.01**	0.34	0.23	0.01***	0.14	0.13	0.81
car									
Food, clothes, appliances, a car,	0.14	0.17	0.29	0.15	0.20	0.13	0.13	0.10	0.57
resources are not unlimited									
Everything	0.06	0.08	0.16	0.05	0.09	0.05*	0.08	0.07	0.74
No answer	0.02	0.01	0.11	0.01	0.01	0.42	0.06	0.01	0.15
Observations	798			586			212		

Note: * indicates $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.