Full title: **Rethinking Propaganda: How State Media Build Trust Through Belief Affirmation**

Short title: **Belief Affirmation and Trust in Propaganda**

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Abstract: Research on propaganda often focuses on strategies that autocrats can use to persuade skeptical citizens. I outline a different function of propaganda—reinforcing regime support and building trust through identity-consistent messages. Such affirmation propaganda results in more positive perceptions of propaganda outlets and skepticism about independent media. I test this argument using three studies in Russia. In two randomized experiments, I demonstrate that pro-regime citizens trust reports from state media more than reports from independent media; however, state media lose trust if they send more critical messages. Additional survey evidence suggests that regime supporters often find state media accurate despite recognizing the pro-government bias of these outlets. My analysis suggests that autocrats are more constrained by public opinion than previously thought. It also helps to better understand the role of persuasion and censorship in authoritarian regimes, and it highlights that independent media have limited power to challenge authoritarian rule.

Keywords: propaganda, autocracy, media, Russia

Supplementary materials for this article are available in the appendix in the online edition. Replication files are available in the *JOP* Dataverse (https://dataverse.harvard.edu/dataverse/jop). The empirical analysis has been successfully replicated by the *JOP* replication analyst. Studies were conducted in compliance with the regulations on human subjects research and were determined to be exempt by the Institutional Review Board at the University of Wisconsin–Madison. Support for this research was provided by the Harriman Institute (Columbia University), the Department of Political Science, the Center for Russia, East Europe, and Central Asia, and the Office of the Provost (all at the University of Wisconsin–Madison), and a dissertation writing grant from the Association for Slavic, East European, and Eurasian Studies.

Many autocracies today extensively use propaganda via state media and social media (Guriev and Treisman 2019; King, Pan, and Roberts 2017; Gehlbach 2010; Rozenas and Stukal 2019), and yet, scholars still debate how exactly propaganda works. Research documents that citizens of autocracies can process media messages critically and often detect manipulation (Wedeen 1999; Mickiewicz 2008; Rosenfeld 2018; Simonov and Rao 2022). How, then, can propaganda succeed against this purported skepticism? One common answer is that autocrats employ a variety of cleverly designed strategies to make propaganda more persuasive (Stockmann and Gallagher 2011; Gehlbach and Sonin 2014; Rozenas and Stukal 2019; Gehlbach 2010; Tolz and Teper 2018; Carter and Carter 2023). Other research, however, notes that persuasion is unlikely when the public is skeptical, so autocrats may instead use propaganda to signal their dominance or create uncertainty (Huang 2015; Little 2017), forcing some desired behavior on citizens.

Despite these disagreements, a notion most common to research on autocracies is that propaganda is a manipulation imposed on the public from above (therefore, it is natural for citizens to be skeptical about it). However, recent research suggests that the relationship between autocrats and citizens is rarely so unidirectional. Such regimes can develop complex political and emotional connections to the public (Greene and Robertson 2019), and they are often more responsive to citizens' concerns (J. Chen, Pan, and Xu 2016; Chapman 2021) than previously thought. The "top-down" view on propaganda also does not square well with an extensive body of work on media and political communication, which shows that changing beliefs and attitudes is difficult (Taber and Lodge 2006; Arceneaux and Johnson 2013; Nyhan and Reifler 2010), and that media often have to cater to news consumers' existing worldviews to win their trust (Gentzkow and Shapiro 2006).

In this paper, I suggest a rethinking of the role that propaganda plays in authoritarian regimes such as Vladimir Putin's Russia. Instead of persuasion or intimidation, propaganda can satisfy public demand for political ideas and narratives, crafting its message around regime supporters' core beliefs. Such *affirmation propaganda* offers citizens emotional comfort,

acknowledging their concerns and validating those identities that are the basis for regime support. Thus, state media outlets, similar to partisan media in democracies, can use identity-consistent reporting targeted at regime supporters to present themselves as trustworthy and cast independent news sources, which offer more critical reporting, as untrustworthy. Citizens reciprocate belief-affirming messages from the regime by *choosing* to stay in the echo chamber of propaganda. Thus, propaganda can be seen as a form of responsiveness that improves the stability and day-to-day functioning of autocratic regimes.

This characterization of propaganda builds on a crucial insight: autocrats may enjoy genuine and long-standing mass support (Greene and Robertson 2019; Matovski 2021). A strong support base changes the calculus for autocrats, making it more important to reinforce the connection with existing supporters and maintain their trust than to persuade the skeptics or intimidate potential protesters. Moreover, I argue and demonstrate that in such conditions, making propaganda more appealing to the skeptical public may be counterproductive—these efforts can backfire among regime supporters.

I test this theory of propaganda in Russia under the rule of Vladimir Putin, a prime example of an "informational autocrat" (Guriev and Treisman 2019; Gehlbach 2010). Over time, Putin has accumulated control over the mainstream media (Enikolopov, Petrova, and Zhuravskaya 2011; Lipman, Kachkaeva, and Poyker 2018), and his regime has extensively used propaganda domestically and abroad. Recently, Putin's propaganda machine came into spotlight as it aided the Kremlin in its war on Ukraine and prompted Russians to believe absurd lies about the neighboring country, often despite personal testimonies of their Ukrainian relatives (Hopkins 2022). Survey evidence also shows that the overwhelming majority of Russians have for decades consumed highly biased state media despite the availability of independent news organizations (Levada Center 2020). My results help us better understand Russians' receptivity to Kremlin-sponsored disinformation.

My analysis is based on three related studies, including a unique large-scale online

experiment ($n \approx 22{,}400$) in which Russians attempted to guess whether various news stories were true or false. My research design has several important features that reduce social desirability and put respondents in a situation similar to real-world news consumption, encouraging them to evaluate a large and diverse set of news messages. The results of this study are consistent with findings from two other samples of the Russian population and robust across various model specifications.

I first demonstrate that citizens sympathetic to Putin were substantially more likely than Putin critics to believe pro-regime messages, but regime supporters were much more skeptical about critical messages, typically published by independent media. Moreover, propaganda was most easily accepted when it spoke directly to supporters' core beliefs.

Further, I experimentally show that state propaganda outlets elicit greater trust among regime supporters than do independent media: pro-Putin respondents were more likely to believe news messages when these messages were randomly attributed to a state source than when the same messages were attributed to an independent news source. I replicate this result in a survey experiment on a nationally representative sample ($n \approx 1{,}600$).

However, Putin supporters no longer viewed state media outlets as more credible when these outlets purportedly published critical messages. Thus, more "balanced" and "accurate" propaganda can alienate the regime's support base, damaging trust in state media.

In another large survey on a representative online sample ($n \approx 2{,}200$), I show that even though many Putin supporters recognized the pro-government bias of state media outlets, most of them still evaluated these outlets as accurate and trustworthy.

Overall, my study documents that citizens of autocracies can genuinely prefer propaganda to more balanced and independent news reporting, and skepticism about propaganda is less widespread in authoritarian societies than some scholars believe. My findings are related to the previous research that described how citizens can find value in state propaganda (Esarey, Stockmann, and Zhang 2016; Oates 2007; Blum 2022) and how such propaganda can be

emotionally appealing (Mattingly and Yao 2021). By documenting the perceptions of media and information in Russia, my study contributes to the growing literature on politically biased information processing in non-democracies (Robertson 2015; Huang and Yeh 2017; Laebens and Öztürk 2020), the polarizing effects of media in such polities (Baysan 2022; Enikolopov et al. 2022) and elsewhere (Bowen, Dmitriev, and Galperti 2023).

This study also emphasizes that citizens in authoritarian regimes are not simply objects of manipulation and brainwashing. Propaganda can speak to citizens' identities, and it needs to account for the public's existing views to be successful. Therefore, my analysis contributes to our understanding of the limits of authoritarian control and manipulation (Rosenfeld 2018; Frye 2021), showing that autocrats are not omnipotent, highly rational manipulators that they are sometimes portrayed to be.

My research complements recent work on the strategies and tactics of authoritarian information manipulation (see e.g., Huang 2015; Alrababa'h and Blaydes 2021; Carter and Carter 2023), highlighting an important, previously overlooked role of propaganda. While affirmation propaganda can be effective on its own, helping to reinforce pro-regime views, it can also increase the effectiveness of persuasion techniques such as blame-shifting (Rozenas and Stukal 2019), as it improves trust in state-run media.

I also shed light on why non-democratic regimes often allow independent media, which may undermine the plausibility of propaganda (Gläßel and Paula 2020). Previous work has argued that such media can provide useful information to autocrats (Egorov, Guriev, and Sonin 2009; Lorentzen 2014) or make citizens more content (Kern and Hainmueller 2009; Huang and Yeh 2017). My analysis suggests that citizens in the propaganda bubble find other news sources unattractive, which reduces the danger of independent media to autocrats while keeping their benefits identified by earlier scholarship.

Finally, my results are relevant to the formal theoretical work on propaganda and Bayesian persuasion (Kamenica and Gentzkow 2011; Edmond 2013; Gehlbach and Sonin 2014). This

research often assumes a uniform response to information manipulation and citizens' ability to observe media bias, whereas my analysis suggests that it is worth explicitly modeling the heterogeneity of political identities and news perceptions (Gentzkow, Wong, and Zhang 2021).

How Propaganda Works: Belief Affirmation and Trust in State Media

Authoritarian propaganda is commonly viewed as a strategic effort to manipulate citizens' attitudes and behavior (Gehlbach and Sonin 2014; Luo and Rozenas 2022), and often, scholars assume citizens to be suspicious of it (Mickiewicz 2008). Thus, theories of propaganda ask: How do autocrats win over the skeptical public? They may use sophisticated techniques, such as mixing fact with fiction (Stockmann and Gallagher 2011; Gehlbach 2010) or blending political messages with entertainment (Tolz and Teper 2018), to make propaganda more plausible and project competence (Guriev and Treisman 2019). Alternatively, autocrats may forgo persuasion and use propaganda to signal the regime's dominance (Huang 2015; Wedeen 1999; Little 2017), threaten the opposition (Carter and Carter 2022), instill political apathy (Walker and Orttung 2014), distract the public (King, Pan, and Roberts 2017), or undermine alternative information sources (Pearce and Kendzior 2012; Pomerantsev 2015).

Yet, while many studies examine how propaganda helps autocrats, scholars rarely ask what it does for citizens (Oates 2007). One reason for this omission is that autocracy is usually seen as a minority rule forced on the population. As Przeworski (2022) notes, autocratic regimes are "assumed to be inherently brittle, surviving only because people are misled or repressed." However, new research suggests that the "minority rule" assumption is too limiting. Many autocracies are fairly consolidated regimes with genuine and substantial popular support (Matovski 2021). In such regimes, autocrats can be responsive to citizens' concerns (J. Chen,

Pan, and Xu 2016; Su and Meng 2016), and they build meaningful emotional and identity connections with the public (Sharafutdinova 2020; Laebens and Öztürk 2020), involving citizens as participants in regime maintenance and "co-constructors" of the political discourse (Greene and Robertson 2019; Chapman 2021).

For autocrats with a strong and stable support base, it becomes more important to prevent the erosion of existing support than to win over the critics (in Appendix A, I model the choice between these two goals and show that with the majority on the autocrat's side, it is optimal to disregard the opposition-minded public). These considerations make popular autocratic regimes more similar to established parties in democracies, which often have to cater to their supporters. Therefore, to explain how propaganda operates in such regimes, it is important to consider the research on partisan political communication.

A large body of work shows that individuals tend to accept congenial news information and reject incongruent messages (Nickerson 1998; Taber and Lodge 2006; Nyhan and Reifler 2010), and that they often select into consuming like-minded media (Arceneaux and Johnson 2013), viewing "oppositional" media as untrustworthy and hostile (Feldman 2014).[1] Consequently, media outlets often need to adopt partisan biases and slants if they want to gain trust among target audiences (Gentzkow and Shapiro 2006). Such politically congruent reporting is designed to reinforce existing beliefs and attitudes rather than change minds (Arceneaux and Johnson 2013; Stroud 2010).

However, the literature on partisan communication does not consider propaganda promoted via state-run media. In turn, research on autocracies has been slow in adopting the models of selective exposure and partisan reasoning. Many studies of authoritarian propaganda, instead, build on more traditional theories of political communication, assuming a fairly passive audience and a more or less uniform response to information manipulation among citizens; hence, the conclusion that propaganda just needs to be properly designed to persuade the

[1]Trust in politically congruent sources may emerge even if citizens do not engage in motivated reasoning (Gentzkow, Wong, and Zhang 2021).

public. Some other work (e.g., Huang 2015) can be seen as following the "minimal effects" model (Bennett and Iyengar 2008), which implies that persuasion attempts are largely futile. Only a few recent analyses of autocracies (Baysan 2022; Enikolopov et al. 2022; Laebens and Öztürk 2020) and propaganda (Robertson 2015; Truex 2016; Huang and Yeh 2017; Chapman 2021) consider heterogeneous "partisan" responses to media messages, but this work does not systematically investigate the implications of such politically biased news processing for propaganda strategies or trust in state and independent media.

Drawing both on the recent political communication research and the new work on autocracies, I argue that authoritarian propaganda can follow the approach of partisan media by incorporating and reproducing the existing beliefs, values, and political emotions of the pro-regime majority. Such *affirmation propaganda* keeps the connection between the autocrat and the public alive. It reinforces "old" and familiar themes instead of trying to make "new" arguments—e.g., corroborating the regime's economic competence (Guriev and Treisman 2022)—or signaling strength through grand and ridiculous statements (Huang 2015).

More specifically, the role of state media in this situation resembles the behavior of partisan outlets whose party is in power: they amplify the government's successes, downplay problems, and disparage internal or external opponents. One difference is that authoritarian media engage in egregious disinformation and censorship (Paul and Matthews 2016), much more so than partisan news organizations in democracies. Moreover, while partisan media can criticize the government, especially when their party is out of power, state media rarely have that benefit. These factors somewhat restrict trust in propaganda outlets, so most citizens are unlikely to become fervent fans of such media. Yet, via pro-identity messages, state media outlets still signal that they are on the side of regime supporters and should be taken relatively seriously, especially compared to alternative (independent) news sources, which offer more critical reporting. In contrast to state media, independent outlets appear unreliable and untrustworthy to pro-regime citizens.

Importantly, following Arceneaux and Johnson (2013) and related work (e.g., Ruggiero 2000), I posit a more active public, compared to the traditional research on propaganda that treated citizens as rather passive receivers of information. Individuals can choose between state-run and alternative news sources or at least between consuming and not consuming state media.[2] Therefore, propaganda outlets need to respond to citizens' concerns and offer them something of value. Affirmation propaganda, in particular, helps regime supporters to feel better about themselves and their country, enabling the majority to maintain its identity. Supporters may also value having news outlets they perceive as reliable.[3]

As an example, consider propaganda in Vladimir Putin's Russia. Putin has enjoyed strong and stable popular support for years,[4] partly thanks to the growth of the Russian economy and other major policy decisions (Treisman 2011; Greene and Robertson 2022). Therefore, attracting additional supporters has rarely been a priority for him. Instead, especially as the regime was consolidating, it was essential to maintain the interest and trust of the already sympathetic public. Consequently, the Kremlin's propaganda focused (Sharafutdinova 2020) on the themes that strongly resonated with the pro-Putin majority—Russia's disastrous post-communist transition (Belmonte and Rochlitz 2019) and the country's diminished global standing after the Soviet collapse, which were commonly blamed on the U.S. and NATO (Sokolov et al. 2018). State media highlighted citizens' grievances, their Soviet nostalgia, and the trauma of the Soviet collapse, simultaneously offering hope of restoring Russia's greatness and dignity (Greene and Robertson 2019). As the internal opposition was weak, state media painted the West as Russia's existential enemy and portrayed domestic regime critics as proxies for Western governments (many opposition activists and independent journalists were designated "foreign agents"). These identity appeals became especially prominent after the protests of 2011–2012 when the pro-regime majority appeared to be at risk.

[2] In most autocracies, citizens can access independent media, although that may require additional effort.

[3] Other work argues that state media can maintain interest through entertaining content (Gehlbach 2010; Schimpfössl and Yablokov 2014; Tolz and Teper 2018), but that would not allow them to generate trust.

[4] https://www.levada.ru/en/ratings/.

Given the opacity of authoritarian regimes, it is difficult to establish whether and when affirmation propaganda is a deliberate choice. The evidence provided above is consistent with the idea that the Kremlin has used affirmation propaganda to prevent the erosion of Putin's support base, but my analysis does not directly test this conjecture. Instead, I examine the key foundations of affirmation propaganda: that the public is receptive to congenial propaganda messages and that belief-affirming political coverage can improve trust in state media. The preceding discussion suggests the following testable expectations.

Hypothesis 1a: **Regime supporters are more likely to find propaganda messages targeting their identity credible, compared to opposition-minded citizens (critics) who should be more skeptical about such propaganda**. In the Russian case, this means statements that praise Russia or its government or contain anti-Western sentiment; I label such news content "pro-Russia messages."

Hypothesis 1b: **Supporters are less likely to find messages inconsistent with their pro-regime beliefs ("critical messages") credible, compared to opposition-minded citizens**. Critical messages may discuss problems in Russia or positive developments in Western countries or Ukraine.

Hypothesis 2a: **Regime supporters trust state media outlets more than independent media organizations**.[5]

Hypothesis 2b: **Supporters are less likely than critics to recognize that the coverage of state media outlets is censored and inaccurate**.

At the same time, trust in state media can be lost if these media diverge from the expectations of pro-regime citizens. Existing research often suggests that autocrats can make propaganda more plausible to the skeptics by decreasing the pro-regime bias—e.g., incorporating critical messages or admitting failures (Stockmann and Gallagher 2011; Gehlbach and Sonin 2014; Rozenas and Stukal 2019; Carter and Carter 2023). However, the model

[5]I use the terms "state media," "state-controlled media," and "state propaganda outlets" interchangeably.

in Appendix A shows formally that if the opposition is fairly distant ideologically, appeals to critics can backfire: even though opposition-minded citizens may find such nuanced propaganda reporting more accurate, supporters would be alienated by it. Therefore, **when propaganda outlets include critical messages, their perceived trustworthiness is increased among critics but reduced among supporters** (Hypothesis 3).

This discussion helps us better understand the role of persuasion in authoritarian propaganda efforts. The space for persuasion is larger when regime support is weak, but it shrinks when the pro-regime majority is substantial, as supporters are already not that skeptical, and the skeptical minority can be ignored or repressed. At the same time, even robust regimes cannot always rely on belief-affirming tactics because they sometimes need to convey new narratives to the sympathetic majority. Still, by increasing trust in state outlets, affirmation propaganda can facilitate the promotion of "new" ideas. Further, when convincing is needed, governments can persuade more effectively by incorporating new messages into more familiar themes, which the public likes to hear.

For example, when the Kremlin's propaganda tried to justify Russia's war on Ukraine, it benefited from the public's receptivity to state media, but it also framed the conflict in terms that Putin supporters could sympathize with. State outlets portrayed Ukraine as NATO's puppet in its alleged effort to destroy Russia, and they drew parallels between the current conflict and World War II. The new narrative about Ukraine as a military threat was integrated into familiar anti-Western narratives and supplemented with comforting tales about Russians fighting Nazis.

It is also important to note that affirmation propaganda can complement but not substitute media censorship. Core regime supporters may decidedly prefer state media and avoid independent media, and if the majority only consisted of such strong supporters, censorship would be redundant. However, exposure to alternative information sources can undermine pro-regime beliefs or trust in state media among moderate, less "partisan" supporters, and

censorship helps to prevent that. Ultimately, affirmation propaganda makes it less likely that citizens would seek alternative media, but it does not eliminate the need for censorship.

To sum up, viewing propaganda only as manipulation applied to induce certain behavior or attitudes oversimplifies information politics in autocracies. Rather, propaganda can be part of a broader relationship between autocrats and the public: it allows governments to demonstrate their responsiveness and fulfill citizens' demand for political connection, a feeling of pride, a sense of belonging to a national community, etc. Such propaganda can mobilize core supporters (Gunitsky 2015) and strengthen their emotional association with the regime (Greene and Robertson 2022). However, affirmation propaganda may also placate the public, especially less politicized and sophisticated individuals (Zhelnina 2020; Alyukov 2022), making them more complacent by exposing them to politically comfortable messages. This is why so many citizens in autocracies may genuinely prefer the content of state media to more independent news sources. But my analysis also suggests that shaping and changing public opinion under autocracy is not easy. Propaganda has to cater to existing identities and political expectations, and when it fails to do so, the public may stop listening.

Research Design

This analysis is based on three surveys conducted in Russia. In all three studies, the participants were shown a series of news stories, including pro-Russia messages and critical messages, displayed in random order. Respondents were asked to indicate whether each story was, in their view, true or false. Therefore, these three surveys allow me to examine the perceptions of pro-regime content in different samples of Russians (H1). In Study 1, a large-scale online survey fielded on social media in May–June 2020 ("the main study"), I also embedded an experiment to examine the perceptions of the credibility of state media outlets in comparison to independent media (H2 and H3). Study 2, a survey fielded via the polling firm Levada Center in August 2019 ("the national survey"), extends the analysis to a

nationally representative sample. Study 3, an online survey fielded via the polling company OMI in May–June 2020 ("the media perceptions survey"), provides additional evidence on the perceived trustworthiness and accuracy of state and independent media.

The Online Quiz (Study 1)

I designed and promoted the main study as a "quiz" that offered respondents an opportunity to test how well they detect false news messages. This approach, inspired by online trivia quizzes,[6] has several advantages in examining the perceptions of propaganda.

By turning news evaluations into a game, I provided internal motivation to evaluate a large number of diverse news messages, ensuring that the results are not overly dependent on individual stories. The quiz premise also improves accuracy motivation, prompting respondents to answer more honestly and reducing the expressive responding to political stories.[7] Further, the quiz was promoted via social media, making the survey experience similar to casual news consumption. My study is the first to use such a realistic instrument to measure evaluations of news stories and news media.

Stories evaluated in the study were news headlines selected from Russian and foreign media and slightly edited for clarity.[8] The quiz was available online for about three weeks, and at each moment, respondents evaluated fourteen messages selected before the beginning of the study and two "current" messages, which were regularly scraped from the news aggregator Yandex.News. In total, twenty "current" messages were included, two at a time. These stories increase the ecological validity of the analysis (Pennycook et al. 2021). Respondents could also take the quiz again and evaluate additional sixteen "pre-selected" stories. The full list of stories and the detailed selection procedure are in Appendix B. Some of these stories were

[6] See, e.g., the recurring BuzzFeed quiz on fake news: https://www.buzzfeed.com/tag/fake-news-quiz.

[7] Increased accuracy motivation may, however, reduce the impact of political reasoning (Prior, Sood, and Khanna 2015). If so, the estimated differences in news perceptions may be somewhat biased downward.

[8] Some of these statements were false. To determine veracity, I relied on fact-checking websites and did additional fact-checking using reputable news agencies.

also included in Studies 2 and 3 to see whether the findings generalize to other samples.

The main study was implemented as a stand-alone web application, and respondents were recruited via social media ads on Facebook.[9] In 2020, around 80% of Russians were internet users[10], and many were Facebook users.[11] I followed the suggestions from Zhang et al. (2020) in using Facebook's ad targeting features to make sure that key demographic subgroups were well represented in the sample.

The quiz was completed by 23,179 respondents. 13 percent were not asked about presidential approval. In the remaining sample, 8 percent did not report their approval of Putin, and about 13 percent did not answer questions about their age, gender, or education. Respondents with missing approval were removed from the sample,[12] as well as respondents who indicated having taken this quiz earlier (3 percent). I also removed the responses from those participants who labeled all stories uniformly (all true or all false), as well as unrealistically fast responses (that took less than one second). Such irregular responses amounted to less than 2 percent of the data. The resulting data set includes 306,801 decisions on the truthfulness of news messages made by 17,974 respondents. Analyses in the appendix Figure B4 and Table B7 use a larger sample as they do not rely on presidential approval. Summary statistics for all three studies are in Table B1 in the appendix.

Establishing the preference for pro-regime content (H1). This analysis is based on evaluations of 50 stories listed in Table B2, including 15 pro-Russia messages and 11 critical messages. I labeled stories "pro-Russia" if they were positive statements about Russia and its government or statements about problems in the West or Ukraine; these messages were mostly taken from state-run media. E.g., one such (false) story suggests that "*Pope Francis*

[9]Russian internet users are a highly relevant group for this analysis, as they are more interested in news, and autocrats increasingly target internet audiences (King, Pan, and Roberts 2017; Sanovich, Stukal, and Tucker 2018).

[10]According to the media analytics company Mediascope: https://mediascope.net/news/1250827/.

[11]In 2020, about 40 million people in Russia accessed Facebook at least once a month: https://ppc.world/articles/auditoriya-shesti-krupneyshih-socsetey-v-rossii-v-2020-godu-izuchaem-insayty/.

[12]In an additional analysis, available upon request, I used a model-based approach to impute the missing approval values, and the results were almost identical.

awards [Russian President Vladimir] Putin with a medal called 'Angel, Guardian of Peace.' The medal is awarded once in a hundred years, and Putin is its fifth recipient." Stories were labeled "critical" if they were about problems in Russia or failures of the Russian government or if they contained positive statements about Western countries and Ukraine; these stories were mostly taken from independent media. For example: "*Putin signs a new law that gives him lifetime immunity and the right to be a lifetime senator.*"

In the analysis below, I examine Russians' preference for pro-regime or critical messages by comparing the share of Putin supporters who said that these messages were true with the share of Putin critics who said the same. These comparisons are estimated as covariate-adjusted contrasts based on the following linear regression:

$$R_{is} = \alpha + \beta DIRECTION_s * SUPPORT_i + \gamma DIRECTION_s + \delta SUPPORT_i + \psi X_{is} + \epsilon_{is},$$

where R is whether the respondent said the story is true, $DIRECTION$ is a set of dummies indicating whether stories are pro-Russia, critical, or neutral, $SUPPORT$ indicates support for Putin (see below), and X are controls, including respondent age, sex, and education, story-level covariates, and the date of the survey. i indexes respondents, and s indexes news stories. Heteroskedasticity-robust standard errors are clustered on the respondent level.

Establishing the perceived credibility of state propaganda outlets (H2a and H3). To examine whether supporters view state-run outlets as more trustworthy, I followed an approach common in the research on source credibility (Botero et al. 2015; Truex 2016). News stories shown to participants were randomly attributed to one news outlet from a list of state and independent news organizations. The name and logo of this randomly chosen outlet were displayed above the text, as shown in Figure B1 in the appendix. The nature of the treatments was revealed in the post-survey debriefing.

Each story received either a **state media treatment** (a government-controlled outlet) or an **independent media treatment**. At the time of the survey, consumers could easily access all assigned news outlets. State media treatments included the two main television stations,

Channel One and *Russia-24*, *RIA Novosti* (the main official news agency), *Komsomolskaya Pravda* (*KP*; the most popular newspaper and website in Russia), and *RT* (*Russia Today*), a television channel targeted at foreign audiences but also popular in Russia. All except *KP* were owned by the state; *KP* was controlled by Sergei Rudnov, a son of Vladimir Putin's friend Oleg Rudnov. Critical media treatments included *Rain*, an online television station, *Meduza*, a popular website, and *Echo of Moscow*, a liberal radio station and a website.[13] Randomization worked as intended (see Table B3 in Appendix B).

This analysis examines the evaluations of the same stories as above, excluding three "pre-selected" stories from the beginning of the quiz, which were not a part of the experiment, and sixteen stories from the second quiz (see above), which respondents saw after the debriefing. The resulting set of messages includes 9 pro-Russia, 5 critical, and 17 neutral stories (stories 4–14 and 31–50 in Table B2).

The texts of the news stories were identical in all treatment groups. The quantity of interest is the difference between the share of respondents who deemed news stories to be true under the **state media treatment** and the share of respondents who said so under the **independent media treatment**. To establish this effect for Putin supporters and Putin critics, I estimate the following regression:

$$R_{is} = \alpha + \beta SOURCE_{is} * SUPPORT_i + \gamma SOURCE_{is} + \delta SUPPORT_i + \psi X_{is} + \epsilon_{is},$$

where R is the respondent's evaluation of the story (true or false), $SOURCE$ is a set of dummies indicating whether the source is state-controlled or indicating individual news sources (in some models), $SUPPORT$ indicates support for Putin, and X are respondent-level and story-level controls. To test H3, which posits more trust in state media among critics and less trust among supporters when these media "send" critical messages, I include a triple interaction between story source, support for Putin, and story direction.

[13] One other treatment was *RBC*, a private news agency recently acquired by a Kremlin-friendly oligarch. *RBC* was excluded from the main analysis, but as a robustness check, Figure B7 in Appendix B presents the main experimental result assuming *RBC* to be state-controlled, and the estimates are similar.

The National Survey (Study 2)

I embedded a similarly designed experiment in a nationally representative survey of 1608 Russian adults by the polling firm Levada Center. As in the main study, respondents evaluated the veracity of several news messages, including pro-Russia and critical stories, which were attributed to a state-run or a critical media outlet. For practical reasons, there were three story vignettes and two news sources, *Channel One* and *Echo of Moscow*. Further details of the survey and the embedded experiment are provided in Appendix C. I estimate the effect of the state media treatment using the same strategy as with the main experiment.

The Media Perceptions Survey (Study 3)

The third study establishes whether Putin supporters are more likely than critics to perceive state-run media outlets as accurate and trustworthy (H2b). The survey was conducted via the polling company OMI, drawing a sample of 2,200 from OMI's large online panel of respondents in all eight federal districts of Russia. I implemented age and sex quotas derived from a nationally representative sample of the Russian population.

The first measure of interest is whether one trusts any state media or any independent media. I asked respondents to name two or three news outlets that they trust the most. Then, two dummy variables capturing whether one named any state-run television stations or any independent news outlets,[14] respectively, were constructed. I estimated the differences in trust between supporters and critics via the following regression:

$$T_i = \alpha + \beta SUPPORT_i + \gamma X_i + \epsilon_i,$$

where T is trust in state-run or independent media, $SUPPORT$ indicates support for Putin, and X are sociodemographic controls. Heteroskedasticity-robust standard errors were used.

The second set of measures captures the perceived accuracy and bias of four state

[14]The full list of state-controlled and independent media outlets is provided in Appendix B.

media outlets: *Channel One*, *Russia-24*, *RIA*, and *RT*. I use two dimensions to capture the perceptions of accuracy (Meyer 1988; Kohring and Matthes 2007): (1) whether these media offer complete, uncensored news coverage, and (2) whether they report the facts accurately; see Appendix D for question wording. Two dimensions were used to characterize media bias: (1) whether the coverage of the outlet is pro-government, anti-government, or neutral, and (2) whether the outlet is editorially independent of the authorities.

Given multiple answer options, including "hard to say," I analyze these perceptions via multinomial logistic regressions, and I control for whether one indicated knowing the state-controlled outlet in question. Otherwise, the regression setup is the same.

Measuring Support for Putin

All three studies included the following question: "*Do you approve of the performance of the president of Russia?*" Response options were: certainly approve, somewhat approve, somewhat disapprove, certainly disapprove (in some analyses below, I use a dichotomized measure of support). This language has been commonly used in Russian polls to establish support for President Putin. A recent study has found that surveys asking such questions produced adequate estimates of presidential approval (Frye et al. 2017), at least before Putin's regime became more repressive in 2022. The risk of overstating support in an anonymous online survey was even lower (Huang and Yeh 2017).[15] To mitigate reverse causation, the question about Putin's support was asked before information treatments.

Figure 1 shows the distribution of presidential approval in all three surveys, indicating that in the two online surveys, the share of supporters is substantially lower. For this study, it is most important to have sufficient variation in presidential approval within each sample, but the diversity of these samples also helps establish that the relationships of interest hold in different groups of the Russian population.

[15] In the pre-testing, there was virtually no difference in the probability of continuing the survey depending on whether the question about presidential approval was included.

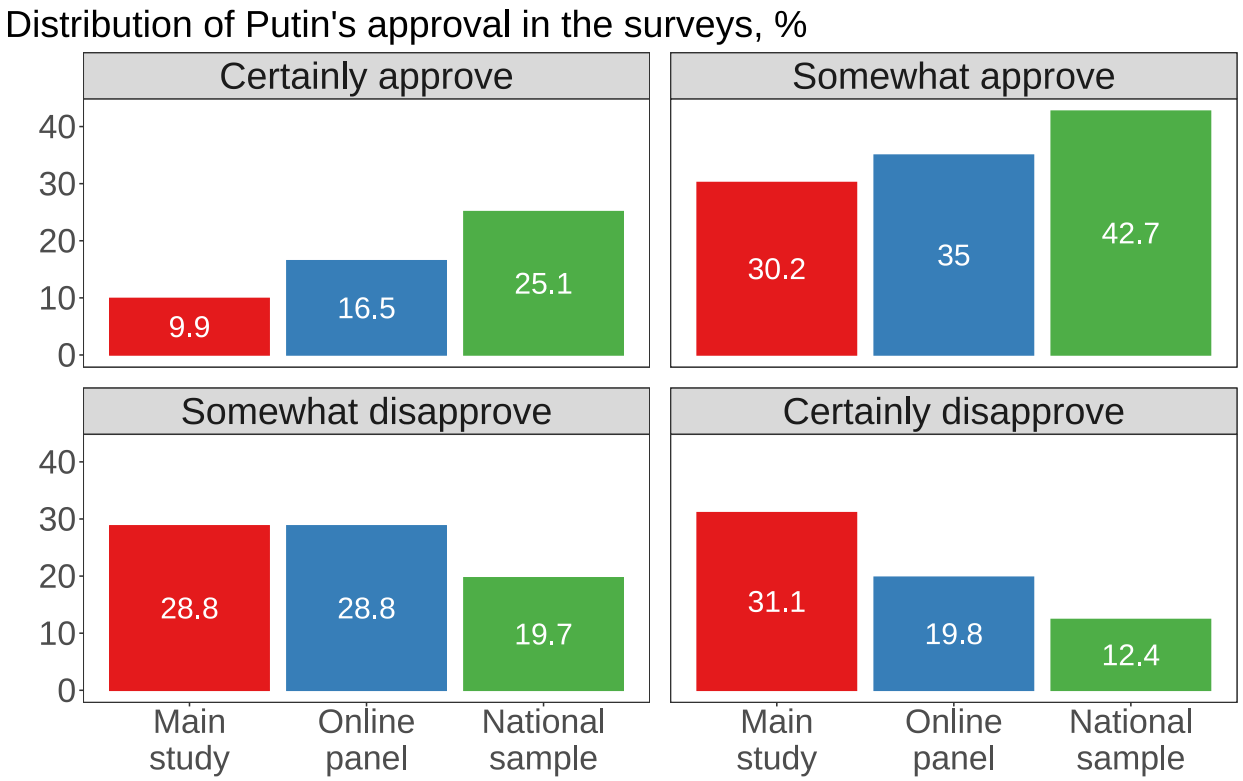

Figure 1: The distribution of presidential approval in the three survey samples: the social media sample, the online sample (OMI), the nationally representative sample (Levada)

Support for Putin is used as a key measure of pro-regime orientations. In the appendix, I report the results with additional measures of these orientations, which reflect the anti-Western and pro-state views of Putin supporters; these results are similar.

Findings

Supporters Are Receptive to Identity-Consistent Stories

Figure 2 shows that Putin supporters on average were 11.5 percentage points more likely to find pro-Russia stories credible than were Putin critics (estimates in black show the average difference across all pro-Russia stories, adjusting for covariates, including age, gender, and education). These disagreements are about the same when the analysis is restricted to respondents who evaluated news stories without any sources (Figure B2). The pattern is consistent across different samples of Russians (Figure B3). For "baseline" levels of belief in each story among supporters and critics, see Table B2.

The estimates in gray show disagreements about message subcategories—stories positive or critical about Putin, Russia, the West, or Ukraine. Supporters were most receptive to anti-Western messages. As an example, 73 percent of pro-Putin respondents found credible a false story that California had banned the words "husband" and "wife" to support same-sex marriages. This story appeals to the anti-LGBTQ sentiment that many Putin supporters share and their perceptions of the United States as a threat to "traditional" values.

At the same time, only 23 percent of supporters believed a false statement saying that Pope Francis had awarded Putin with a rare medal for his efforts to improve world peace. Unlike the story about California, this pro-Russia message did not speak to views deeply held by pro-regime citizens, so most of them deemed the story implausible. In other words, Putin supporters do not automatically accept propaganda falsehoods: they only do so as long as messages reflect their core beliefs.

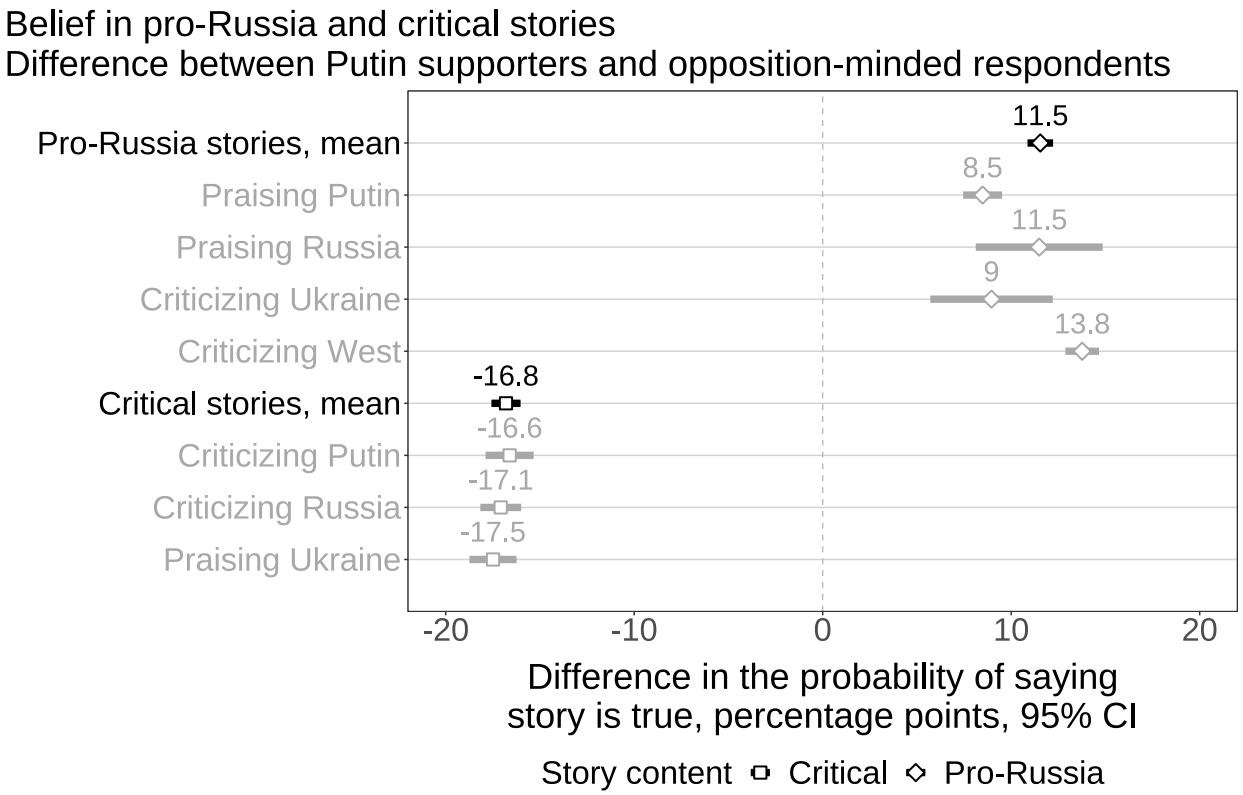

Figure 2: Difference between Putin supporters and critics in the probability of finding pro-Russia and critical stories credible. Results from the main study. 95% confidence intervals are shown.

Figure 2 also shows a strong bias against critical messages among Putin supporters: on average, they were 17 percentage points less likely to recognize such stories as true. Only 16 percent of supporters, for example, found credible a report that Putin had given himself lifelong immunity from prosecution, and only 15 percent believed a report that the Ukrainian economy had been growing faster than the Russian economy (both reports were true).

Supporters Find Propaganda Outlets More Credible Than Independent Media

According to my theory, the focus on belief-consistent information makes state propaganda outlets appear more credible to supporters compared to independent, critical media. Figure 3 shows the effect of changing the treatment from an independent media source to a state-run source on the probability of saying that news stories are true, depending on presidential approval. The figure shows the average effect[16] ("All stories"; the estimates in black) and the effects for different subcategories of news stories, which are discussed in detail below. "Strong" supporters or critics are those who "certainly" approve or disapprove of the president, and "moderate" supporters or critics are those who "somewhat" approve or disapprove.

In line with my expectations, Putin supporters were 2-3 percentage points more likely to say that a story was true when it was attributed to a state propaganda outlet, compared to when an independent outlet was assigned. This finding highlights how trust in news sources can be driven by political affinity rather than by the accuracy of reporting: supporters found state media more credible even though these outlets often distorted the facts.

These results are robust to different model specifications and to using alternative measures of pro-regime orientations (Tables B4 and B7, Figures B4 and B7 in the appendix), and they are consistent across individual state and independent sources (Figure B5) and "pre-selected"

[16]The effect is the difference between the share of respondents that found a story true and the share of respondents that found a story false, averaged over stories and adjusted for covariates. The effect is calculated for each subgroup via the R package *emmeans* (Lenth 2019) based on the regression model.

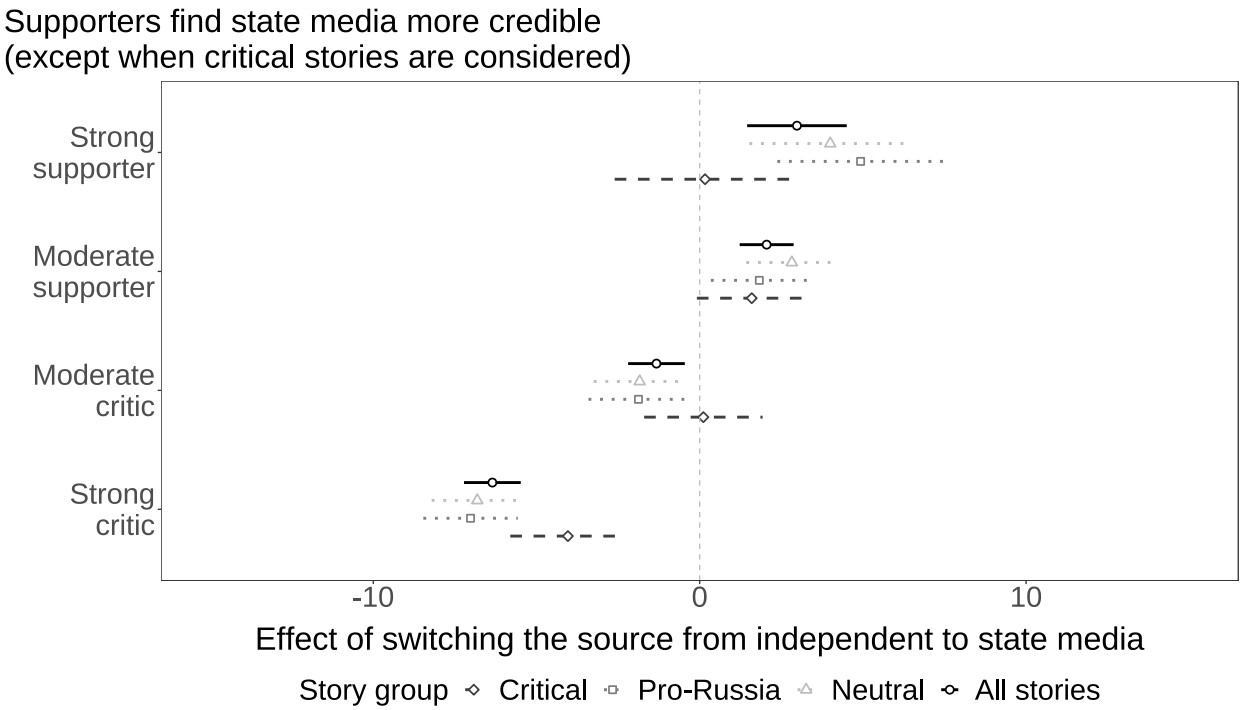

Figure 3: The effect of changing the treatment (source attribution) from an independent to state media outlet on evaluations of news stories, by approval of Vladimir Putin. Calculations based on linear regressions of news story evaluations on state control and presidential approval; results from the main study. 95% confidence intervals are shown

and "current" news stories (Table B8 and Figure B6). Further, in the experiment embedded in a national survey by the Levada Center (Study 2), Putin supporters also perceived information attributed to state media as more credible (Figure C1).

Critical Messages From State Media Backfire Among Supporters

My theory suggests that if state media outlets moderate their pro-regime bias by sending more critical messages, this can improve trust among the opposition but undermine trust among supporters. The effects split by story category in Figure 3 support this argument.

For pro-Russia and neutral messages, the effect of state media was in line with the average results reported earlier—it was positive for Putin supporters and negative for Putin critics. However, when critical stories were considered, the effect was less negative among Putin critics—they were *less* skeptical about propaganda outlets when these outlets "sent" more critical messages—but it was essentially zero among strong Putin supporters. While the evidence here is not definitive (the confidence intervals overlap), it highlights an important trade-off: When state outlets provide more accurate information, they may gain some trust among critics, but they could lose their credibility advantage among core supporters. This result also supports the notion that trust in state media among supporters is driven by the emphasis of these media on pro-Russia messages.

Supporters Find Propaganda Outlets Trustworthy Despite the Bias

In the online survey fielded via OMI (the media perceptions survey), I asked Russians to report their perceptions of state-run and independent media outlets. Figure 4 demonstrates that the overwhelming majority of regime supporters trusted at least one state television station, whereas most critics did not trust any state television channels. The pattern for independent media was reversed (for regression estimates, see Table D2 in Appendix D.

Figure D1 in the appendix shows that pro-Putin respondents predominantly learned news from state propaganda outlets, and they were highly unlikely to use any independent media).

It is worth noting that among Putin critics, trust in independent media was still quite low. Moderate critics, in particular, trusted state television more often than independent outlets. One reason for this lack of trust may be that Russian independent journalists lean liberal, whereas regime critics often hold illiberal—e.g., nationalist—views (see evidence from Study 2 in the appendix Figure C1). Therefore, in autocracies such as Putin's Russia, independent media may struggle to appeal even to opposition-minded citizens.

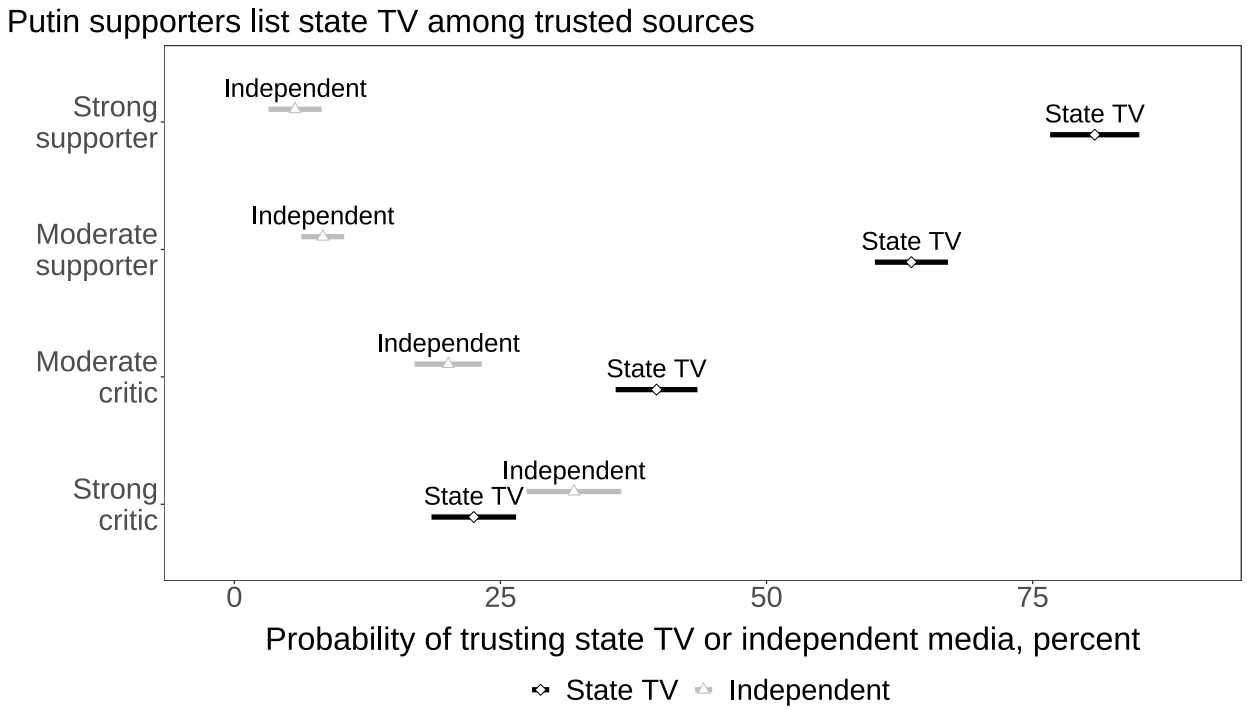

Figure 4: The probability of trusting independent media or state television, by approval of Vladimir Putin. Calculation based on linear regressions of media use (dummy variables) on presidential approval and demographic covariates; results from the OMI online panel (Study 3). 95% confidence intervals are shown

The respondents were also asked to evaluate key state media outlets—*Channel One*, *Russia-24*, *RIA*, and *RT*—along four dimensions: whether their coverage was accurate, complete (uncensored), and politically unbiased, and whether these outlets were politically independent. Figure 5 reports the percentage of Putin supporters and critics who agreed

with such characterizations of state media (regression tables are in Appendix D).

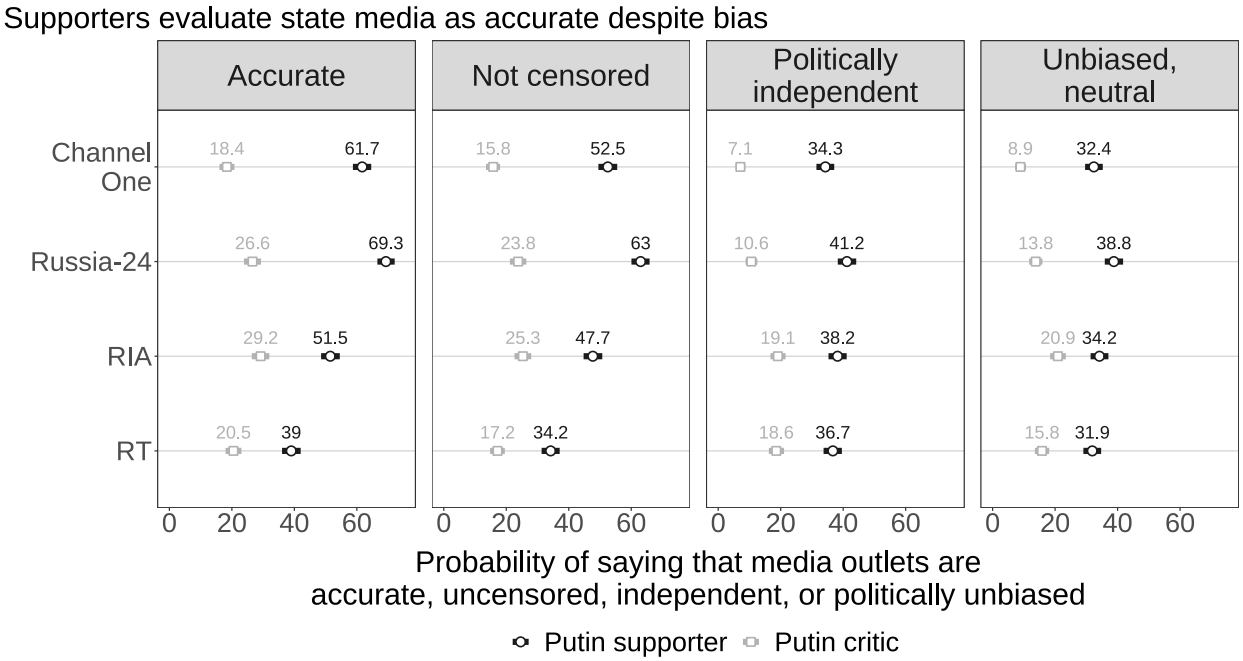

Figure 5: The probability of agreeing with the statements that state media (Channel One, Russia-24, RIA, RT) are accurate, not censored, politically independent, and politically unbiased, by approval of Vladimir Putin. Calculations based on multinomial regressions of news source evaluations on presidential approval and demographic covariates; results from the OMI online panel (Study 3). 95% confidence intervals are shown

Importantly, the majority of supporters recognized that state media were influenced by the authorities and were not neutral or objective; only 30–40 percent of pro-Putin respondents believed state propaganda outlets to be politically neutral and independent. But, consistent with expectations, most supporters thought the coverage of propaganda outlets to be generally accurate, and they said that these outlets rarely engaged in censorship. For example, 58 percent of supporters admitted that *Channel One* was not independent of the authorities. And yet, 49 percent of those who recognized this lack of independence claimed that *Channel One*'s coverage was mostly accurate, and 34 percent of them listed this station among trusted news outlets. This underscores how little citizens may value media independence and balanced reporting when media are biased in their preferred direction.

Crucially, positive perceptions of propaganda outlets among pro-regime citizens did not

result from poor awareness of alternative news sources. In the OMI survey, almost 60 percent of Putin supporters reported knowledge of some independent news organizations, which were then easily available online. However, as Figures D2 and D3 in the appendix show, pro-regime respondents who were aware of independent media still trusted state media a great deal, and they evaluated state-controlled outlets quite positively. Therefore, for many supporters, being in the propaganda bubble was a choice, not an inevitability.

Regime supporters did not view independent media as a better alternative even if they found state media inaccurate or biased. Among pro-Putin respondents who found *Channel One* accurate and truthful, 6.2 percent reported trusting at least one independent news outlet, and among supporters who admitted that *Channel One* often publishes false information, this proportion was 10.3 percent—not much higher.

Finally, Putin supporters evaluated state media much more positively than did critics. Among opposition-minded respondents, only a small minority said that state propaganda outlets were accurate and uncensored, and very few called these outlets unbiased and independent. This large divergence between critics and supporters emphasizes that state media would not gain much by moderating their coverage. It would probably be not enough to win back the skeptics who are very strongly predisposed against state outlets, whereas pro-regime citizens, as demonstrated in the experiment, may be alienated by critical messages.

Conclusion

This study has used a unique experimental approach and survey data from Russia to highlight an important and often overlooked role of propaganda—building and maintaining a relationship with the public through belief-affirming messages. Leaders such as Vladimir Putin can identify narratives and emotions that resonate with citizens and maintain credibility by crafting propaganda around these narratives. Hence, we often observe a genuine preference

for state media and propagandistic content among pro-regime citizens.

I also find that regime supporters view independent news organizations as less reliable than state media. Thus, my analysis provides further support for the argument that the availability of alternative, politically neutral outlets may not reduce media bias or trust in unreliable sources (Gentzkow, Wong, and Zhang 2021). In other words, extending access to independent news media would not deter citizens from consuming propaganda.[17] Supporting independent journalism is still important, but its role as an antidote to propaganda is limited, as it mostly appeals to citizens who are already critical of their governments.

Research on autocracies often argues that informed, skeptical, sophisticated citizens pose a serious problem for these regimes (Guriev and Treisman 2019; Walker and Orttung 2014). My analysis, however, suggests that when a large majority is attuned to the regime's affirmation propaganda, autocrats may ignore these sophisticated skeptics and focus on the sympathetic masses instead. Moreover, producing more accurate and balanced reporting, designed to appeal to skeptics, can invoke a backlash among core supporters.

At the same time, affirmation propaganda does not necessarily replace persuasion and other propaganda strategies. In some situations—e.g., when the primary goal is to preserve and reinforce pro-regime views or trust in propagandistic media—affirmation propaganda can take the central role, and in other cases, it can complement persuasion and improve its effectiveness. For example, state media can win public trust by appealing to citizens' core beliefs, and they can exploit this trust to manipulate beliefs on other, more peripheral issues.

I also highlight that the influence of propaganda is fundamentally limited. When it does not engage with citizens' identities, core beliefs, and values, it is difficult to make even the pro-regime public accept such messages. This is why the Russian government often struggles with promoting genuinely unpopular measures, such as anti-COVID restrictions (Kovalev 2021), or manipulating the perceptions of economic problems (Rosenfeld 2018).

[17] Similarly, Y. Chen and Yang (2019) show that many citizens in China would not engage with independent foreign media even when given easy access to such media.

The lessons from this analysis are most relevant to electoral autocracies and "illiberal democracies" that rely on public support and information manipulation, avoiding large-scale repression. Future studies may examine the roles that propaganda plays in other such regimes—for example, to what extent and how leaders such as Recep Tayyip Erdoğan in Turkey or Viktor Orbán in Hungary use belief-affirming tactics—as well as the extent to which affirmation propaganda is employed in more closed regimes such as China.

An important implication of my analysis is that autocrats should place less emphasis on belief affirmation and more emphasis on alternative tactics (e.g., persuading through more balanced messaging) when their support is low or unstable—for example, during crises when governments have to respond to major problems. It is worth investigating how autocrats choose and adjust their propaganda strategies in such situations, as well as how the role of propaganda may change when an informational autocrat turns to harsher and more repressive tactics, as Vladimir Putin did during Russia's war against Ukraine. While this study helps understand why Russians were initially receptive to the Kremlin's pro-war propaganda, it remains to be seen for how long such trust may hold in wartime conditions, especially when the regime expects sacrifices from the public.

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References

Alrababa'h, Ala', and Lisa Blaydes. 2021. "Authoritarian Media and Diversionary Threats: Lessons from 30 Years of Syrian State Discourse." *Political Science Research and Methods* 9 (4): 693–708.

Alyukov, Maxim. 2022. "Making Sense of the News in an Authoritarian Regime: Russian Television Viewers' Reception of the Russia–ukraine Conflict." *Europe-Asia Studies*, January, 1–23.

Arceneaux, Kevin, and Martin Johnson. 2013. *Changing Minds or Changing Channels? Partisan News in an Age of Choice*. Chicago London: The University of Chicago Press.

Baysan, Ceren. 2022. "Persistent Polarizing Effects of Persuasion: Experimental Evidence from Turkey." *American Economic Review* 112 (11): 3528–46.

Belmonte, Alessandro, and Michael Rochlitz. 2019. "The Political Economy of Collective Memories: Evidence from Russian Politics." *Journal of Economic Behavior & Organization* 168 (December): 229–50.

Bennett, W. Lance, and Shanto Iyengar. 2008. "A New Era of Minimal Effects? The Changing Foundations of Political Communication." *Journal of Communication* 58 (4): 707–31.

Blum, Ashley Katrine. 2022. "Choosing Propaganda: Media Selection and Politics in Putin's Russia." PhD thesis, University of California, Los Angeles.

Botero, Sandra, Rodrigo Castro Cornejo, Laura Gamboa, Nara Pavao, and David W. Nickerson. 2015. "Says Who? An Experiment on Allegations of Corruption and Credibility of Sources." *Political Research Quarterly* 68 (3): 493–504.

Bowen, T Renee, Danil Dmitriev, and Simone Galperti. 2023. "Learning from Shared News: When Abundant Information Leads to Belief Polarization." *The Quarterly Journal of Economics*, January.

Carter, Erin Baggott, and Brett L. Carter. 2022. "When Autocrats Threaten Citizens with Violence: Evidence from China." *British Journal of Political Science* 52 (2): 671–96.

———. 2023. *Propaganda in Autocracies: Institutions, Information, and the Politics of Belief.* Cambridge University Press.

Chapman, Hannah S. 2021. "Shoring up Autocracy: Participatory Technologies and Regime Support in Putin's Russia." *Comparative Political Studies* 54 (8): 1459–89.

Chen, Jidong, Jennifer Pan, and Yiqing Xu. 2016. "Sources of Authoritarian Responsiveness: A Field Experiment in China." *American Journal of Political Science*, forthcoming.

Chen, Yuyu, and David Y. Yang. 2019. "The Impact of Media Censorship: 1984 or Brave New World?" *American Economic Review* 109 (6): 2294–2332.

Edmond, Chris. 2013. "Information Manipulation, Coordination, and Regime Change." *Review of Economic Studies* 80 (4): 1422–58.

Egorov, Georgy, Sergei Guriev, and Konstantin Sonin. 2009. "Why Resource-Poor Dictators Allow Freer Media: A Theory and Evidence from Panel Data." *American Political Science Review* 103 (4): 645–68.

Enikolopov, Ruben, Maria Petrova, and Ekaterina Zhuravskaya. 2011. "Media and Political Persuasion: Evidence from Russia." *American Economic Review* 101 (7): 3253–85.

Enikolopov, Ruben, Michael Rochlitz, Koen J. L. Schoors, and Nikita Zakharov. 2022. "The Effect of Independent Online Media in an Autocracy." *SSRN Electronic Journal*.

Esarey, Ashley, Daniela Stockmann, and Jie Zhang. 2016. "Support for Propaganda: Chinese Perceptions of Public Service Advertising." *Journal of Contemporary China* 26 (103): 101–17.

Feldman, Lauren. 2014. "The Hostile Media Effect." In *The Oxford Handbook of Political Communication*, edited by Kate Kenski and Kathleen Hall Jamieson. Oxford University Press.

Frye, Timothy. 2021. *Weak Strongman: The Limits of Power in Putin's Russia.* Princeton University Press.

Frye, Timothy, Scott Gehlbach, Kyle L. Marquardt, and Ora John Reuter. 2017. "Is Putin's Popularity Real?" *Post-Soviet Affairs* 33 (1): 1–15.

Gehlbach, Scott. 2010. "Reflections on Putin and the Media." *Post-Soviet Affairs* 26 (1): 77–87.

Gehlbach, Scott, and Konstantin Sonin. 2014. "Government Control of the Media." *Journal of Public Economics* 118: 163–71.

Gentzkow, Matthew, and Jesse M. Shapiro. 2006. "Media Bias and Reputation." *Journal of Political Economy* 114 (2): 280–316.

Gentzkow, Matthew, Michael B. Wong, and Allen T. Zhang. 2021. "Ideological Bias and Trust in Information Sources."

Gläßel, Christian, and Katrin Paula. 2020. "Sometimes Less Is More: Censorship, News Falsification, and Disapproval in 1989 East Germany." *American Journal of Political Science* 64 (3): 682–98.

Greene, Samuel, and Graeme Robertson. 2019. *Putin v. The People: The Perilous Politics of a Divided Russia*. Yale University Press.

———. 2022. "Affect and Autocracy: Emotions and Attitudes in Russia After Crimea." *Perspectives on Politics* 20 (1): 38–52.

Gunitsky, Seva. 2015. "Corrupting the Cyber-Commons: Social Media as a Tool of Autocratic Stability." *Perspectives on Politics* 13 (1): 42–54.

Guriev, Sergei, and Daniel Treisman. 2019. "Informational Autocrats." *Journal of Economic Perspectives* 33 (4): 100–127.

———. 2022. *Spin Dictators: The Changing Face of Tyranny in the 21st Century*. Princeton University Press.

Hopkins, Valerie. 2022. "Ukrainians Find That Relatives in Russia Don't Believe It's a War." *The New York Times*, March. https://www.nytimes.com/2022/03/06/world/europe/ukraine-russia-families.html.

Huang, Haifeng. 2015. "Propaganda as Signaling." *Comparative Politics* 47 (4): 419–44.

Huang, Haifeng, and Yao-Yuan Yeh. 2017. "Information from Abroad: Foreign Media, Selective Exposure and Political Support in China." *British Journal of Political Science*

49 (2): 611–36.

Kamenica, Emir, and Matthew Gentzkow. 2011. "Bayesian Persuasion." *American Economic Review* 101 (6): 2590–2615.

Kern, Holger Lutz, and Jens Hainmueller. 2009. "Opium for the Masses: How Foreign Media Can Stabilize Authoritarian Regimes." *Political Analysis* 17 (4): 377–99.

King, Gary, Jennifer Pan, and Margaret E. Roberts. 2017. "How the Chinese Government Fabricates Social Media Posts for Strategic Distraction, Not Engaged Argument." *American Political Science Review* 111 (3): 484–501.

Kohring, Matthias, and Jörg Matthes. 2007. "Trust in News Media: Development and Validation of a Multidimensional Scale." *Communication Research* 34 (2): 231–52.

Kovalev, Alexey. 2021. "The Pandemic Is Beating Putin." *The New York Times*, December. https://www.nytimes.com/2021/12/08/opinion/covid-russia-putin.html.

Laebens, Melis G., and Aykut Öztürk. 2020. "Partisanship and Autocratization: Polarization, Power Asymmetry, and Partisan Social Identities in Turkey." *Comparative Political Studies*.

Lenth, Russell. 2019. *Emmeans: Estimated Marginal Means, Aka Least-Squares Means*. https://CRAN.R-project.org/package=emmeans.

Levada Center. 2020. "Rossiyskiy Medialandshaft-2020." https://www.levada.ru/2020/04/28/rossijskij-medialandshaft-2020/.

Lipman, Maria, Anna Kachkaeva, and Michael Poyker. 2018. "Media in Russia: Between Modernization and Monopoly." In *The New Autocracy: Information, Politics, and Policy in Putin's Russia*, edited by Daniel Treisman. Brookings Institution Press: Washington, D.C.

Little, Andrew T. 2017. "Propaganda and Credulity." *Games and Economic Behavior* 102: 224–32.

Lorentzen, Peter. 2014. "China's Strategic Censorship." *American Journal of Political Science* 58 (2): 402–14.

Luo, Zhaotian, and Arturas Rozenas. 2022. "Ruling the Ruling Coalition: Information Control and Authoritarian Power-Sharing." *Quarterly Journal of Political Science*.

Matovski, Aleksandar. 2021. *Popular Dictatorships*. Cambridge University Press.

Mattingly, Daniel C., and Elaine Yao. 2021. "How Soft Propaganda Persuades." *Comparative Political Studies*.

Meyer, P. 1988. "Defining and Measuring Credibility of Newspapers: Developing an Index." *Journalism Quarterly* 65: 567–74.

Mickiewicz, Ellen. 2008. *Television, Power, and the Public in Russia*. Cambridge University Press.

Nickerson, Raymond S. 1998. "Confirmation Bias: A Ubiquitous Phenomenon in Many Guises." *Review of General Psychology* 2 (2): 175–220.

Nyhan, Brendan, and Jason Reifler. 2010. "When Corrections Fail: The Persistence of Political Misperceptions." *Political Behavior* 32 (2): 303–30.

Oates, Sarah. 2007. "The Neo-Soviet Model of the Media." *Europe-Asia Studies* 59 (8): 1279–97.

Paul, Christopher, and Miriam Matthews. 2016. *The Russian "Firehose of Falsehood" Propaganda Model: Why It Might Work and Options to Counter It*. RAND Corporation.

Pearce, Katy E., and Sarah Kendzior. 2012. "Networked Authoritarianism and Social Media in Azerbaijan." *Journal of Communication* 62 (2): 283–98.

Pennycook, Gordon, Jabin Binnendyk, Christie Newton, and David G. Rand. 2021. "A Practical Guide to Doing Behavioral Research on Fake News and Misinformation." *Collabra: Psychology* 7 (1).

Pomerantsev, Peter. 2015. "The Kremlin's Information War." *Journal of Democracy* 26 (4): 40–50.

Prior, Markus, Gaurav Sood, and Kabir Khanna. 2015. "You Cannot Be Serious: The Impact of Accuracy Incentives on Partisan Bias in Reports of Economic Perceptions." *Quarterly Journal of Political Science* 10 (4): 489–518.

Przeworski, Adam. 2022. "Formal Models of Authoritarian Regimes: A Critique." *Perspectives on Politics*, September, 1–10.

Robertson, Graeme. 2015. "Political Orientation, Information and Perceptions of Election Fraud: Evidence from Russia." *British Journal of Political Science* 47 (3): 589–608.

Rosenfeld, Bryn. 2018. "The Popularity Costs of Economic Crisis Under Electoral Authoritarianism: Evidence from Russia." *American Journal of Political Science* 62 (2): 382–97.

Rozenas, Arturas, and Denis Stukal. 2019. "How Autocrats Manipulate Economic News: Evidence from Russia's State-Controlled Television." *Journal of Politics* 81 (3): 982–96.

Ruggiero, Thomas E. 2000. "Uses and Gratifications Theory in the 21st Century." *Mass Communication and Society* 3 (1): 3–37.

Sanovich, Sergey, Denis Stukal, and Joshua A. Tucker. 2018. "Turning the Virtual Tables: Government Strategies for Addressing Online Opposition with an Application to Russia." *Comparative Politics*.

Schimpfössl, Elisabeth, and Ilya Yablokov. 2014. "Coercion or Conformism? Censorship and Self-Censorship Among Russian Media Personalities and Reporters in the 2010s." *Demokratizatsiya* 22 (2): 295–311.

Sharafutdinova, Gulnaz. 2020. *The Red Mirror: Putin's Leadership and Russia's Insecure Identity*. Oxford University Press.

Simonov, Andrey, and Justin Rao. 2022. "Demand for Online News Under Government Control: Evidence from Russia." *Journal of Political Economy* 130 (2): 259–309.

Sokolov, Boris, Ronald F Inglehart, Eduard Ponarin, Irina Vartanova, and William Zimmerman. 2018. "Disillusionment and Anti-Americanism in Russia: From Pro-American to Anti-American Attitudes, 1993–2009." *International Studies Quarterly* 62 (3): 534–47.

Stockmann, Daniela, and Mary K. Gallagher. 2011. "Remote Control: How the Media Sustain Authoritarian Rule in China." *Comparative Political Studies* 44 (4): 436–67.

Stroud, Natalie Jomini. 2010. "Polarization and Partisan Selective Exposure." *Journal of*

Communication 60 (3): 556–76.

Su, Zheng, and Tianguang Meng. 2016. "Selective Responsiveness: Online Public Demands and Government Responsiveness in Authoritarian China." *Social Science Research* 59 (September): 52–67.

Taber, Charles S., and Milton Lodge. 2006. "Motivated Skepticism in the Evaluation of Political Beliefs." *American Journal of Political Science* 50 (3): 755–69.

Tolz, Vera, and Yuri Teper. 2018. "Broadcasting Agitainment: A New Media Strategy of Putin's Third Presidency." *Post-Soviet Affairs* 34 (4): 213–27.

Treisman, Daniel. 2011. "Presidential Popularity in a Hybrid Regime: Russia Under Yeltsin and Putin." *American Journal of Political Science* 55 (3): 590–609.

Truex, Rory. 2016. "Bias and Trust in Authoritarian Media." https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2802841.

Walker, Christopher, and Robert W. Orttung. 2014. "Breaking the News: The Role of State-Run Media." *Journal of Democracy* 25 (1): 71–85.

Wedeen, Lisa. 1999. *Ambiguities of Domination: Politics, Rhetoric, and Symbols in Contemporary Syria*. University of Chicago Press.

Zhang, Baobao, Matto Mildenberger, Peter D. Howe, Jennifer Marlon, Seth A. Rosenthal, and Anthony Leiserowitz. 2020. "Quota Sampling Using Facebook Advertisements." *Political Science Research and Methods* 8 (3): 558–64.

Zhelnina, Anna. 2020. "The Apathy Syndrome: How We Are Trained Not to Care about Politics." *Social Problems* 67 (2): 358–78.

Biographical Statement

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Online Appendix A: Formalization of the Argument

The formalization of the affirmation propaganda argument outlined here is adapted from theoretical models of Bayesian persuasion (Kamenica and Gentzkow 2011), including their application to media control (Gehlbach and Sonin 2014). In these models, one actor, the sender, aims to persuade another actor, the receiver, to take an action that the sender prefers rather than the action that the receiver prefers in the absence of the sender's messages. The formalization here incorporates heterogeneity of prior beliefs among receivers, which in this context corresponds to pro-regime or oppositional attitudes.[1] The analysis below demonstrates that under certain conditions, autocrats have to choose between maintaining existing support and convincing the unpersuaded.

The autocrat is the sender, and the citizens are the receivers. There are two groups of citizens, A (the pro-regime majority) and B (the opposition, or the minority), of sizes α_A and α_B, where $\alpha_A > \alpha_B$, and $\alpha_A + \alpha_B = 1$.

The state of the world $\theta \in \{0, 1\}$ is a random variable, unobserved by autocrat and citizens. The variable θ may represent, e.g., economic or government performance; $\theta = 1$ means that the state of the world is good. Citizens do not observe the state of the world, and they must choose an action $a \in \{a_0, a_1\}$, e.g., a_1 could be voting for the autocrat, and a_0 would be voting against. Citizens' payoffs are dependent on their action and on the state of the world: for any citizen i, the payoff is x if $\theta = 0$ and $a_i = a_0$, $1 - x$ if $\theta = 1$ and $a_i = a_1$, and 0 otherwise.

In a departure from the standard framework, I assume that citizens have heterogeneous prior beliefs about the state of the world, $p_A > x$ and $p_B < x$, where p_B is the weight group B places on the event $\theta = 1$. That is, group A is ex ante inclined to take the autocrat's preferred action a_1, and group B is ex ante not inclined to take that action. The autocrat's payoff is equal to the share of citizens that take the action a_1.

Before the state of the world is realized, the autocrat commits to a "signal structure," which is a probability distribution over messages for each state of the world. With probability β_θ, the autocrat sends the propaganda message $m = 1$. Without loss of generality, I assume $\beta_1 = 1$, so that the news is always "good" when the state of the world is "good." Of primary interest is β_0, which can be interpreted as media bias.

The state of the world is then realized, and the propaganda message is generated based on β. Citizens then update their beliefs using Bayes' rule and choose the action a.

What is the level of media bias β_0 that maximizes the autocrat's payoff? The choice of β_0 by the autocrat is constrained by the conditions under which the receivers would take the sender's preferred action when $m = 1$; following Bergemann and Morris (2019), I refer to these conditions as obedience constraints. I ask: If there are two groups of citizens with different priors, when is it optimal for the autocrat to set media bias β_0 such that the obedience constraint for group B is satisfied (B takes the action a_1), and when is it, instead, optimal to simply focus on satisfying the constraint for group A (ensuring that A is still

[1] I am grateful to Scott Gehlbach for suggesting this approach to the formalization.

willing to take the action)?

It is always possible to ensure that group A (the majority) takes the autocrat's preferred action as long as the autocrat is willing to forgo persuading group B (the opposition). For example, if the autocrat sets $\beta_0 = 1$, propaganda always sends a positive signal ($m = 1$), and there is no updating for either group. The autocrat's expected payoff in this case is α_A (the share of A in the population), as only citizens in A choose a_1.

However, the reverse is not true: if the autocrat persuades group B to take the action, it is possible that group A will not take the action. To satisfy the obedience constraint for B, media bias β_0 should be sufficiently low so that $m = 1$ could be an informative message for B. Given that $Pr_B(\theta = 1) = p_B$, the obedience constraint for B is $\frac{p_B}{p_B+(1-p_B)*\beta_0} \geq x$. Rearranging, media bias such that the obedience constraint binds for B is $\beta_0 = \frac{p_B}{1-p_B} * \frac{1-x}{x}$.

Implementing media bias to convince B means that sometimes the autocrat must send $m = 0$ when $\theta = 0$. When this is the case, group A (the majority) will also infer that $\theta = 0$ and not take the action preferred by the autocrat.

The choice between two strategies—targeting only the majority versus attempting also to persuade the opposition—depends on the various parameters of the model. As shown above, the payoff from the first strategy is α_A. To define the autocrat's expected payoff in the second case, posit an (ad hoc) "true" prior $p = Pr(\theta = 1)$. Then, the autocrat's expected payoff is $p + (1 - p) * \frac{p_B}{1-p_B} * \frac{1-x}{x}$, given the optimal media bias derived above.

The autocrat thus focuses on convincing B if $p + (1 - p) * \frac{p_B}{1-p_B} * \frac{1-x}{x} > \alpha_A$, so the choice depends on the size of the majority (α_A) and on p_B. Reaching out "across the aisle" can be beneficial only if p_B is sufficiently large (close to x), so the autocrat can win B over by sending $m = 0$ only occasionally, and if α_A is relatively small.

With small values of p_B—if p_B is distant from x and, therefore, from p_A—autocrats need to send informative messages ($m = 0$) often if they want to win over the highly skeptical opposition, but such messages would also alienate many members of the majority. In other words, if there is a large divergence in priors between the supporting majority and the opposition, it is not optimal for the autocrat to cater to the latter. Further, if the size of the ex-ante pro-regime group is large enough, the autocrat can simply produce uninformative (positive) messages all of the time regardless of the difference in priors between the two groups.

The situation when there is a strong majority that supports the autocrat and the opposition is small but ideologically distant is observed in certain authoritarian regimes. In this environment, the autocrat would in equilibrium choose substantial media bias that targets the majority group alone—that is, would choose affirmation propaganda.

Online Appendix B: Additional Evidence From the Main Study (the Social Media Sample)

A Note on Human Subjects Research

This study was determined to be exempt by the Institutional Review Board at the University of Wisconsin-Madison (IRB protocols ID 2019-0763, 2019-0800, and 2020-0639), as defined under 45 CFR 46 (Category 2). For questions, you may contact the Education and Social/Behavioral Science IRB at 608-263-2320. The study is in compliance with APSA's Principles and Guidance for Human Subjects Research. In particular, the participants were Russian adults who engaged with the study using their native language; the participants provided their informed consent to participate in the study; the study did not collect any identifying data on the participants; their responses are kept confidential and are analyzed only in an aggregated form. The sample size was determined based on the number of experimental treatments and the heterogeneous effects that were to be examined.

The experiment on the social media sample and the survey experiment embedded in the Levada survey involved slight deception—specifically, some participants might have seen news messages attributed to news sources that had not actually published these news stories, and the purpose of the study was not fully disclosed in the beginning of the surveys. In both cases, the deception was necessary in order to avoid demand effects and other distortions: if participants were aware that the purpose of the study was to understand their news source perceptions and the relationship between source perceptions and political views, they might not have answered truthfully. The purpose of the study and the nature of the experimental manipulation were fully disclosed to participants in the debriefing message displayed after the completion of each survey. The subjects were able to contact the researcher in case they had any questions.

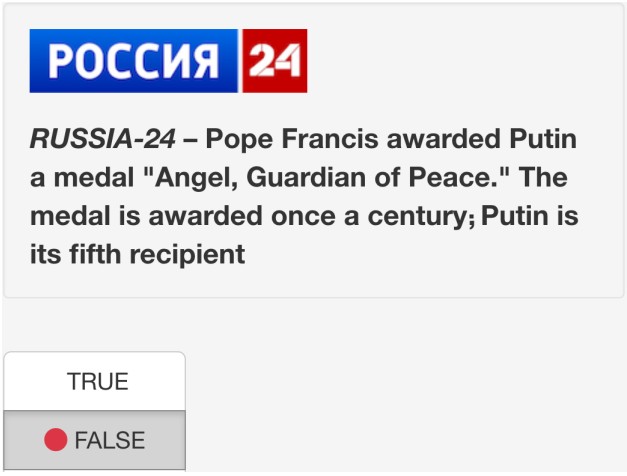

Figure B1: This is an example of an experimental vignette with a news story attributed to a state-controlled news outlet, Russia-24

Summary Statistics

Table B1: Summary statistics for the three samples

	Main study		National survey		Online panel	
Variable	%	Non-missing	%	Non-missing	%	Non-missing
Approves of president (dummy)	40.1	17974	67.8	1567	51.4	2114
Uses independent media	48.7	17855	NA	0	21.8	2114
Uses state-controlled media	63.2	17855	NA	NA	81.5	2114
Uses state TV	39.4	17855	80.1	1560	65.3	2114
Female	55.6	16586	55.0	1567	50.2	2114
Higher education	82.4	16547	29.5	1567	58.4	2114
Age 18-24	6.0	16868	9.3	1567	11.0	2114
Age 25-34	21.6	16868	19.1	1567	25.8	2114
Age 35-44	24.5	16868	22.4	1567	30.7	2114
Age 45-54	21.2	16868	13.5	1567	14.8	2114
Age 55-64	18.8	16868	21.1	1567	14.2	2114
Age 65+	7.8	16868	14.6	1567	3.5	2114

Note: The sample is limited to respondents with non-missing data on presidential approval.

The Procedure for the Selection of News Stories

Fourteen news stories in the main quiz and 16 stories in the second quiz (see the main text for details) were selected from top news stories by Russian online news aggregators in the months preceding the study. Several news stories were sought and included specifically to ensure, first, that there were some false news stories in the list, and second, that there were pro-Russia, critical, and neutral stories.

To check the veracity of these news stories, I relied on existing fact-checking resources such as *Politifact* and the fact checks regularly published by the Russian investigative web site *The Insider*. When existing fact checks were not available, I fact checked the stories based on reports by authoritative independent news agencies, economic reports, and other data. If the veracity of a story could not be established, the story was excluded from selection.

Two slots in the quiz were reserved for "current" stories that were updated two or three times a week based on recent news reports. First, I used a web scraping script to download top news stories on politics and international news from *Yandex News*, Russia's largest news aggregator with a daily audience of 9 million people. *Yandex* uses an algorithm to determine the news stories that are popular at any given moment. "Politics" and "world news" are two of the sections on the *Yandex News* main page, and at any particular moment, there are several dozens of news stories under each of these two labels.

After downloading all the stories in these two categories, I eliminated irrelevant messages based on several criteria: stories that reported future events without indicating their substance (e.g., announcements of press conferences); stories that were developing and could change quickly (e.g., the number of deaths from COVID-19); stories focused on technical details of events (e.g., the amount of shipments entering a port, low-level bureaucratic appointments); opinions or personal statements, except for statements by key political and business leaders; stories that could not be reliably fact-checked (e.g., information about military operations).

This preliminary selection produced shorter lists of candidate news stories under both "politics" and "world news." After obtaining these lists, I used a random number generator to select one news story from each of the two topics. These two news stories were fact-checked and then added to the survey. Largely, I aimed to preserve the headlines from *Yandex News*, sometimes expanding the headline based on the text of the corresponding news story or slightly editing it for clarity.

The Categorization of State-Controlled and Independent Media Outlets

Various analyses in this study rely on a categorization of news outlets as state-controlled or independent. This subsection lists all the news outlets that are used in the study either as experimental treatments or as answer choices in questions about media trust and media usage. News outlets that are included as treatments in the experiment are in **bold**.

State-controlled media outlets: ***Channel One***, ***Russia-24***, *Russia-1*, *Vesti*, ***RT***, ***RIA***, *TASS*, *Zvezda*, *Sputnik*, *Rossiyskaya Gazeta (RG)* (all of the preceding outlets are owned by the government); *NTV*, *RenTV*, ***Komsomolskaya Pravda (KP)***, *Moskovskiy Komsomolets*, *Izvestiya*, *Lenta.ru*, *Gazeta.ru*, *Vzglyad* (these outlets were controlled by pro-Kremlin oligarchs).

Independent (critical) media outlets: ***Rain***, *Novaya Gazeta*, *Vedomosti*, *Rosbalt* (owned by independent entrepreneurs); ***Echo of Moscow***; *BBC*, ***Meduza***, *Euronews*, and other foreign news sources.

The list of news outlets also included *RBC* and *Kommersant*, business news outlets that were controlled by Kremlin-friendly oligarchs but were not as propagandistic as the state-controlled media organizations listed above.

This list of news outlets was compiled based on several internet rankings of most popular websites in Russia (*Yandex.Radar*, *Liveinternet*, *Rambler Top 100*, *Mediametrics*), and some less popular, but important independent news outlets such as *BBC* were added.

The categorization into state-controlled and critical news outlets is based on media ownership, on news reports on the Russian media industry, and on previous scholarship that has examined or categorized Russian media (Simonov and Rao 2022; Greene and Robertson 2019; Schimpfössl and Yablokov 2017).

News Stories in the Experiment

Table B2: News messages evaluated in the main study

					Mean evaluations		
Code	Text	False?	Political	Direction	Overall	Critic	Supporter
1	A man in Britain pretended to be deaf for 62 years to avoid listening to his "too talkative" wife	FALSE	No	Neutral	0.581	0.576	0.580
2	Because of sanctions against Russia, the European Union has lost 500 billion euros	FALSE	Yes	Pro-Russia	0.493	0.394	0.613
3	In the last four years, the Ukrainian economy grew faster than the Russian economy, and it grew twice as fast in the past year	TRUE	Yes	Critical	0.248	0.333	0.146
4	A man in the Moscow region has lived for 60 years with only one brain hemisphere. Doctors did not find any problems with his motor apparatus or vision	TRUE	No	Neutral	0.446	0.454	0.431
5	Russian scientists created plants that constantly phosphoresce. The new kind of plant is developed based on the tobacco plant, using fungi genes	TRUE	No	Neutral	0.390	0.406	0.376
6	A biology student from the University of Miami crossbred strawberries with marijuana, fulfilling his old dream	FALSE	No	Neutral	0.359	0.397	0.334
7	Trump thanked Putin for the oil deal and said that "he acted like a real gentleman"	TRUE	Yes	Pro-Russia	0.520	0.493	0.574
8	In New York, trucks with dozens of decomposing bodies were found. The locals called the police after suffering from an unpleasant smell for several days	TRUE	Yes	Pro-Russia	0.400	0.370	0.445
9	Pope Francis awarded Putin with the medal "Angel, Guardian of Peace." The medal is awarded once in a hundred years, and Putin is its fifth recipient	FALSE	Yes	Pro-Russia	0.184	0.146	0.229
10	A study by the U.S. National Academy of Sciences has shown that a human was first infected by the new type of coronavirus in America in 2019. The outbreak in China was caused by a mutated version of this virus	FALSE	Yes	Pro-Russia	0.430	0.373	0.497
11	Russia is again bringing in uranium waste from Germany. In the 2000s, this practice was stopped after protests	TRUE	Yes	Critical	0.574	0.664	0.453

12	Americans who lost their jobs due to coronavirus do not want to look for new jobs; for many, unemployment benefits are greater than their previous income	TRUE	No	Neutral	0.706	0.700	0.706
13	In case of war with the U.S., Russia could be destroyed in three hours, Chinese military analysts calculated	FALSE	Yes	Critical	0.342	0.403	0.255
14	Putin signs a new law that gives him lifetime immunity and the right to be a lifetime senator	TRUE	Yes	Critical	0.261	0.343	0.160
15	A professor in Sweden has suggested getting rid of "conservative taboos" and considering using human meat as food. He thinks that meat obtained from dead bodies could save humanity from food crises	FALSE	Yes	Pro-Russia	0.269	0.253	0.317
16	A woman in the U.S. describes how her Soviet upbringing helped her during the pandemic: Her mother from early childhood taught her to wash her hands before eating and after going to the bathroom	TRUE	Yes	Pro-Russia	0.827	0.797	0.869
17	Russia billed the U.S. 660,000 dollars for medical and protective equipment. Earlier, Russian authorities had said that the cargo is humanitarian aid	TRUE	Yes	Critical	0.468	0.583	0.316
18	In North Ossetia, locals burn a cell tower to the ground. They were afraid that 5G networks would be used to "x-ray" and "chip" them	TRUE	No	Neutral	0.803	0.839	0.771
19	In Italy, several mafia bosses were let out of prison because of the pandemic. Among them is one of the most influential leaders of the Sicilian Cosa Nostra Francesco Bonura who was doing his 23-year stint in prison	TRUE	No	Neutral	0.395	0.389	0.402
20	In Germany, a rating of the most unpleasant tourists was compiled, and Russians are leading. 60% of respondents said that Russian tourists are too noisy, and 50% said that they lack "food etiquette"	TRUE	Yes	Critical	0.758	0.772	0.715
21	Documents confirming Trump's links to Russia were obtained from the Deutsche Bank	FALSE	Yes	Critical	0.220	0.254	0.173
22	In California, the words "husband," "wife," "groom," and "bride" are banned because of same-sex marriages	FALSE	Yes	Pro-Russia	0.643	0.575	0.731

23	Russia adjusts the date of the ending of the Second World War. It will be September 3 now	TRUE	Yes	Critical	0.478	0.530	0.401
24	The Central Bank burns one ton of banknotes with denominations of 100 and 500 rubles that were infected by the coronavirus	FALSE	No	Neutral	0.105	0.097	0.107
25	Russian banks moved some employees to work and live in the office. They are promised higher salaries and bonuses	TRUE	No	Neutral	0.370	0.387	0.346
26	The number of Ukrainians who positively perceive Russia has increased by 50% in three years	TRUE	Yes	Pro-Russia	0.434	0.366	0.515
27	The State Duma adopts in the first reading a law that will ban giving human names to animals	FALSE	No	Neutral	0.123	0.121	0.114
28	German zoos want to feed some animals to others because due to a lack of visitors they are out of money	FALSE	Yes	Pro-Russia	0.279	0.248	0.327
29	Putin awards Kim Jong Un with a medal "75 years of victory in the Great Patriotic War"	TRUE	Yes	Critical	0.506	0.561	0.432
30	In Tuva, a man was rescued from a bear's den where he spent a month with a broken spine	FALSE	No	Neutral	0.494	0.516	0.468
31	Zhirinovsky suggests testing the coronavirus vaccine on prisoners	TRUE	Yes	Neutral	0.604	0.662	0.567
32	The wealth of the richest Americans has grown by $434 billion since March, an analysis of the Forbes ranking shows	TRUE	No	Neutral	0.634	0.653	0.647
33	For the second time, Poroshenko did not arrive for questioning in an investigation about the illegal import of paintings	TRUE	Yes	Pro-Russia	0.784	0.759	0.810
34	Merkel refuses to go to Washington for a G7 summit	TRUE	Yes	Neutral	0.544	0.514	0.574
35	Obama's former aide suspects Russia is connected to riots in the U.S.	TRUE	Yes	Pro-Russia	0.765	0.742	0.813
36	Hitler's house in Austria will become a police station	TRUE	Yes	Neutral	0.488	0.521	0.439
37	U.S. Attorney General says "foreign forces" intervene in protests in America to escalate violence	TRUE	Yes	Pro-Russia	0.747	0.730	0.775
38	A powerful landslide in Norway washes eight houses into the sea	TRUE	No	Neutral	0.773	0.789	0.755
39	Brazil threatens to leave WHO because of "ideological bias"	TRUE	Yes	Neutral	0.597	0.601	0.590
40	Canada's prime minister bends a knee at an anti-racist rally	TRUE	Yes	Neutral	0.700	0.700	0.703
41	In Lviv, a MiG-29 that had arrived for modernization was plundered for parts	TRUE	Yes	Pro-Russia	0.462	0.427	0.521

42	In the U.S., a treasure hunter finds a chest with precious stones worth a million dollars. The treasure was hidden ten years ago in the mountains by a local antique dealer	TRUE	No	Neutral	0.597	0.622	0.578
43	Peskov says there are no oligarchs in Russia	TRUE	Yes	Neutral	0.612	0.659	0.531
44	In London, archeologists find the ruins of the first British theatre	TRUE	No	Neutral	0.689	0.718	0.629
45	Ukraine gets the status of NATO enhanced opportunity partner	TRUE	Yes	Critical	0.447	0.486	0.387
46	In May, the Polish military occupied a part of the Czech Republic. Poland explains it was an "accident" and a "misunderstanding"	TRUE	Yes	Neutral	0.240	0.235	0.252
47	Kyrgyz prime minister resigns over the radio frequency sale scandal	TRUE	Yes	Neutral	0.410	0.414	0.392
48	A passenger on a train in Switzerland forgot a bag of gold in a car	TRUE	No	Neutral	0.411	0.418	0.404
49	In Putin's residence, a disinfection tunnel is installed to protect from coronavirus. Everyone who passes it is covered with a "dispersed water mist"	TRUE	Yes	Critical	0.635	0.665	0.588
50	Protesters in New York poisoned policemen with milkshakes with added bleach	FALSE	Yes	Pro-Russia	0.153	0.154	0.160

Note: The last three columns present the proportion of those who evaluated the corresponding story as true in the full sample, among Putin supporters, and among Putin critics, respectively. Stories 1-30 are 'pre-selected,' and stories 31-50 are 'current.' Stories 1-14 and 31-50 included in the first quiz, stories 15-30 included in the second quiz. See the text for details. Story 3 was also included in the nationally representative survey (Study 2). Stories 7, 10, and 11 were also included in the OMI online panel (Study 3).

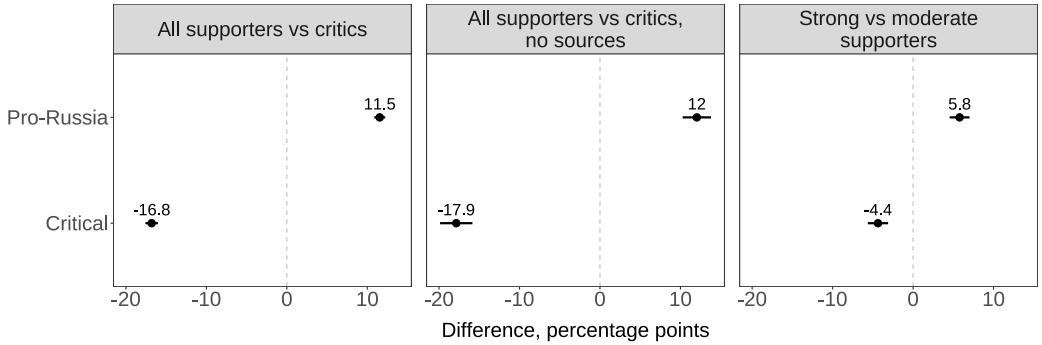

Figure B2: Covariate-adjusted differences in the shares of respondents who found stories credible. Calculated from linear regressions of story evaluations on Putin approval and covariates. Results from the main study. 95% confidence intervals are shown.

Figure B3 compares the differences between Putin critics and supporters in evaluations of selected stories between the main study and the two additional surveys. The story labels refer to the following stories in Table B2: "Growth in Ukraine"—story 3; "Trump and Putin"—story 7; "COVID origins"—story 10; "Nuclear waste"—story 11.

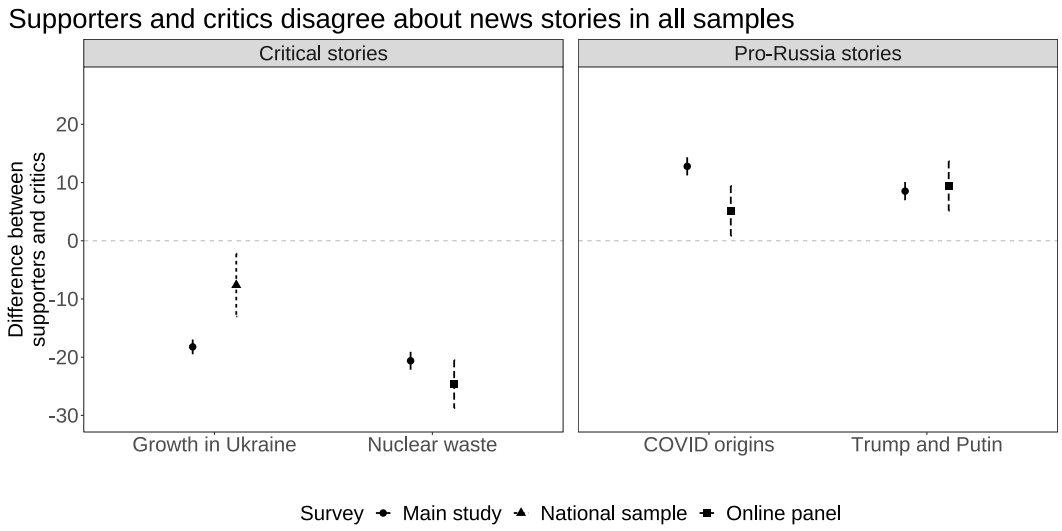

Figure B3: Covariate-adjusted differences in the shares of Putin supporters and critics who found stories credible. Results from Studies 1, 2, and 3. 95% confidence intervals are shown

Balance Check

Table B3: Covariate balance check for the experiment (the main study)

News story	Female	Age group	Higher education	Strong supporter	Strong critic	Moderate supporter	Moderate critic
104	0.461	0.503	0.108	0.890	0.796	0.725	0.822
105	0.767	0.888	0.429	0.839	0.398	0.828	0.856
106	0.268	0.607	0.068	0.382	0.552	0.946	0.522
107	0.723	0.825	0.581	0.015	0.200	0.872	0.332
108	0.163	0.900	0.858	0.959	0.293	0.155	0.564
109	0.200	0.906	0.271	0.244	0.038	0.718	0.042
110	0.060	0.982	0.394	0.948	0.087	0.227	0.689
111	0.796	0.877	0.539	0.145	0.685	0.946	0.768
112	0.812	0.633	0.619	0.978	0.814	0.074	0.072
113	0.976	0.536	0.508	0.904	0.585	0.317	0.316
114	0.490	0.455	0.238	0.927	0.160	0.737	0.516
5221	0.943	0.392	0.112	0.718	0.907	0.128	0.424
5222	0.924	0.269	0.403	0.859	0.246	0.574	0.982
5301	0.009	0.499	0.306	0.622	0.755	0.816	0.710
5302	0.303	0.113	0.958	0.939	0.856	0.666	0.496
6021	0.321	0.228	0.652	0.255	0.553	0.660	0.558
6022	0.859	0.012	0.750	0.330	0.148	0.498	0.197
6041	0.643	0.600	0.448	0.535	0.828	0.784	0.647
6042	0.569	0.849	0.216	0.985	0.041	0.571	0.870
6061	0.929	0.031	0.054	0.464	0.214	0.391	0.754
6062	0.696	0.178	0.227	0.894	0.881	0.804	0.487
6081	0.331	0.337	0.471	0.386	0.742	0.564	0.879
6082	0.413	0.816	0.697	0.429	0.614	0.567	0.743
6101	0.521	0.795	0.925	0.035	0.560	0.120	0.305
6102	0.024	0.907	0.452	0.585	0.259	0.537	0.859
6131	0.166	0.453	0.803	0.304	0.430	0.682	0.964
6132	0.301	0.015	0.173	0.998	0.505	0.984	0.314
6151	0.571	0.714	0.834	0.350	0.707	0.225	0.067
6152	0.035	0.032	0.747	0.749	0.909	0.895	0.690
6161	0.327	0.926	0.472	0.004	0.358	0.477	0.590
6162	0.295	0.363	0.179	0.376	0.402	0.077	0.184

Note: Results of chi-square test for equality of covariate values across treatment groups, by news story. In each column, I provide p-values from chi-squared tests of equality of covariate values across treatment groups (news sources) for the corresponding covariate. See story texts in the list of stories above.

Experimental Results with Other Measures of Pro-Regime Orientations

As discussed in the main text, empirical evidence suggests that Russians are generally truthful when reporting their presidential approval. Nonetheless, I have implemented additional measures to improve the robustness of results. First, I asked the respondents about events or developments in Russian history they are proud of. One of the possible answers was "the reunion with Crimea" (the annexation of Crimea in 2014), very popular among Putin supporters but not among critics. The correlation between presidential approval and pride in the annexation was about 0.48.

Second, in the beginning of the quiz, respondents evaluated two news stories. One reported that the European Union had lost 500 billion euros because of sanctions against Russia (an untrue propaganda statement spread by Vladimir Putin). The other story reported that the Ukrainian economy had been growing faster than the Russian economy (a true story incongruent with common beliefs of government loyalists, as Ukraine was typically portrayed in Russian state media as a failed state). In the quiz, these stories were always attributed to one news source, a news agency *Interfax*.

Then, I combined responses to these two statements in an index that takes the value of 2 if a respondent finds the pro-government EU story to be true and the Ukraine story to be false, the value of 0 if a respondent finds the EU story to be false and the Ukraine story to be true, and the value of 1 if both stories are found to be false or both are found to be true. Larger values are consistent with stronger pro-regime sympathies. The correlation between presidential approval and this measure is about 0.32.

Figure B4 shows the effect of switching from critical to state media depending on pride in Crimea and on beliefs about EU and Ukraine; regression models are in Table B7.

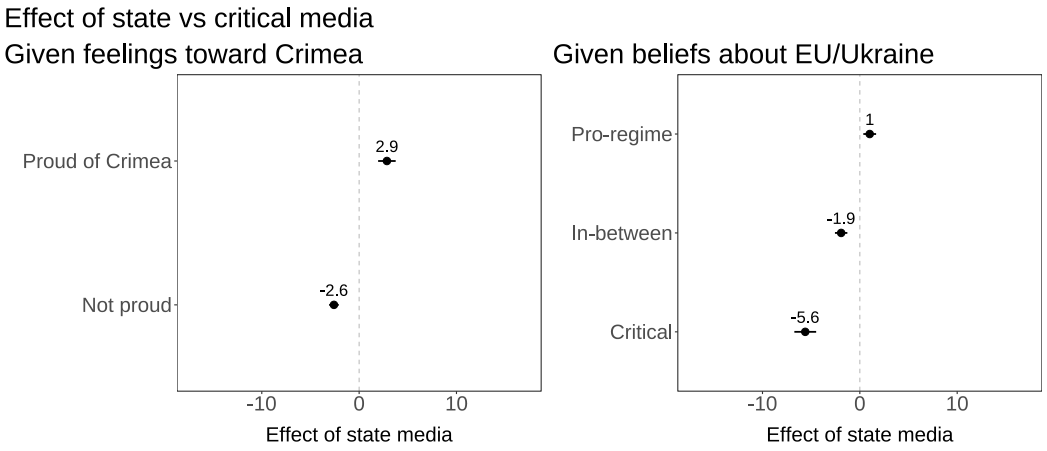

Figure B4: The effect of changing the treatment from critical to state media outlet on evaluations of news stories. Calculations based on a linear regression of news story evaluations, accounting for state control and pro-regime orientations; results from the main study. 95% confidence intervals are shown

Experimental Results by Individual News Sources

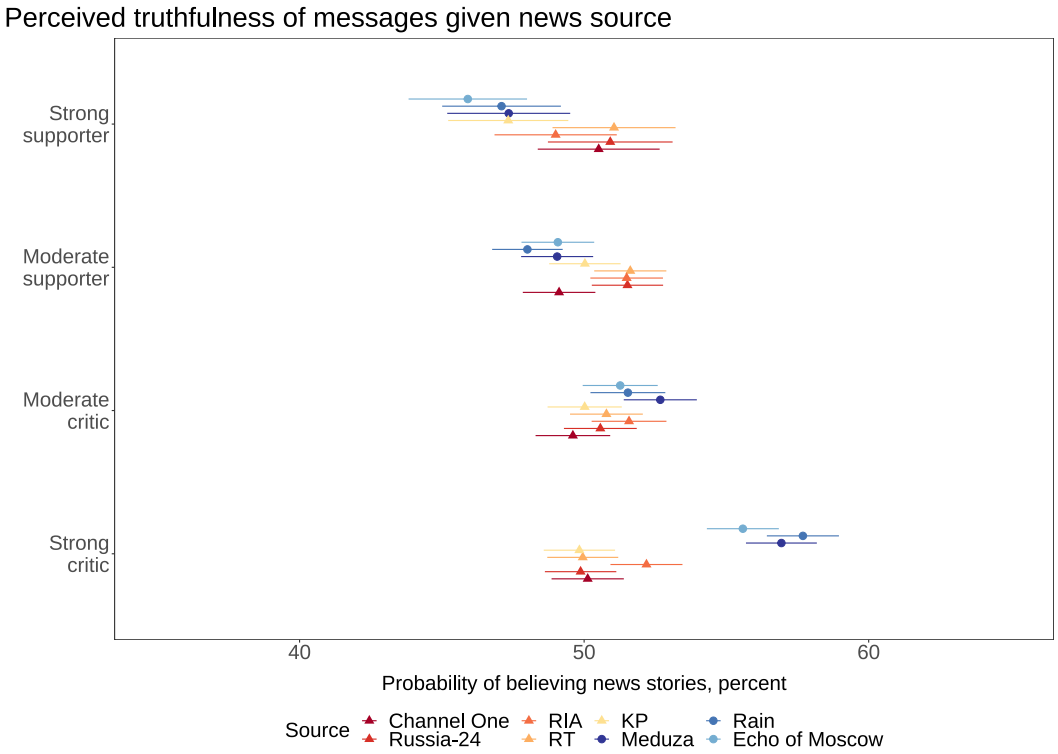

Figure B5: Probability of evaluating news stories as true when they are attributed to specific state-run and independent media outlets, by approval of Vladimir Putin. Calculations based on a linear regression of news story evaluations on media outlet dummies and presidential approval (see text for details); results from the main study. 95% confidence intervals are shown

Experimental Results for Pre-Selected and "Current" News Stories

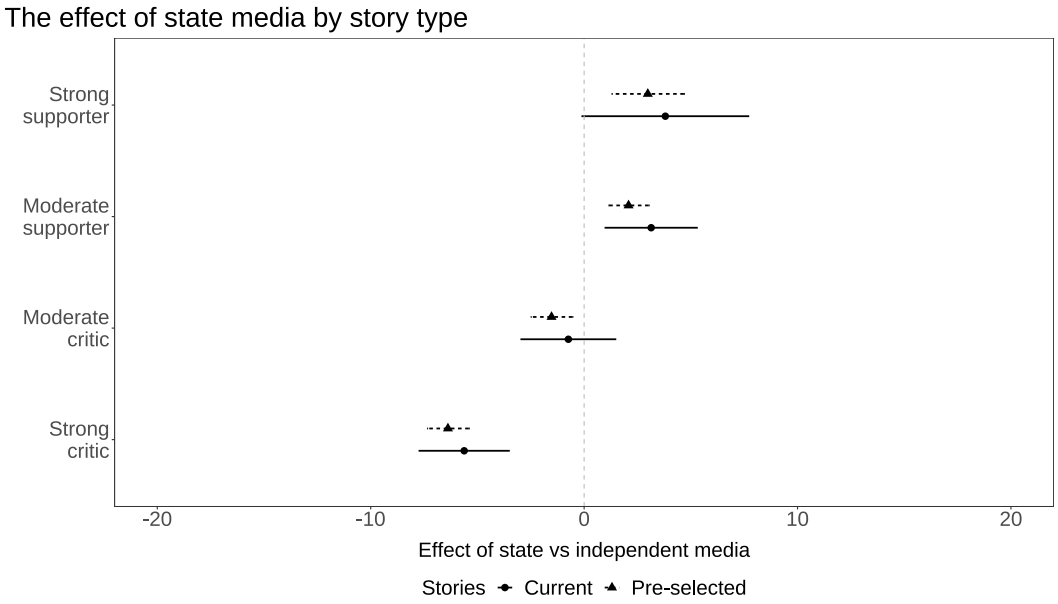

Figure B6: The effect of changing the treatment from an independent to state media outlet on evaluations of news stories, by approval of Vladimir Putin and by story type. Calculations based on a linear regression of news story evaluations, accounting for state control and presidential approval; results from the main study. 95% confidence intervals are shown

Experimental Results with Alternative Categorizations of State-Controlled Media Outlets

In additional models, I consider alternative categorization of state-controlled media outlets. In the first model, *RBC* is also a state-controlled media organization. (In the main analysis, *RBC* is a separate category.) In the second model, I consider as state-controlled only those news outlets that are directly owned by the government: *Channel One*, *Russia-24*, *RIA*, and *RT*. *RBC* and *KP* are categorized as "Other." The results, reported in Figure B7 and in Table B7 below, are very similar to the results in the main text.

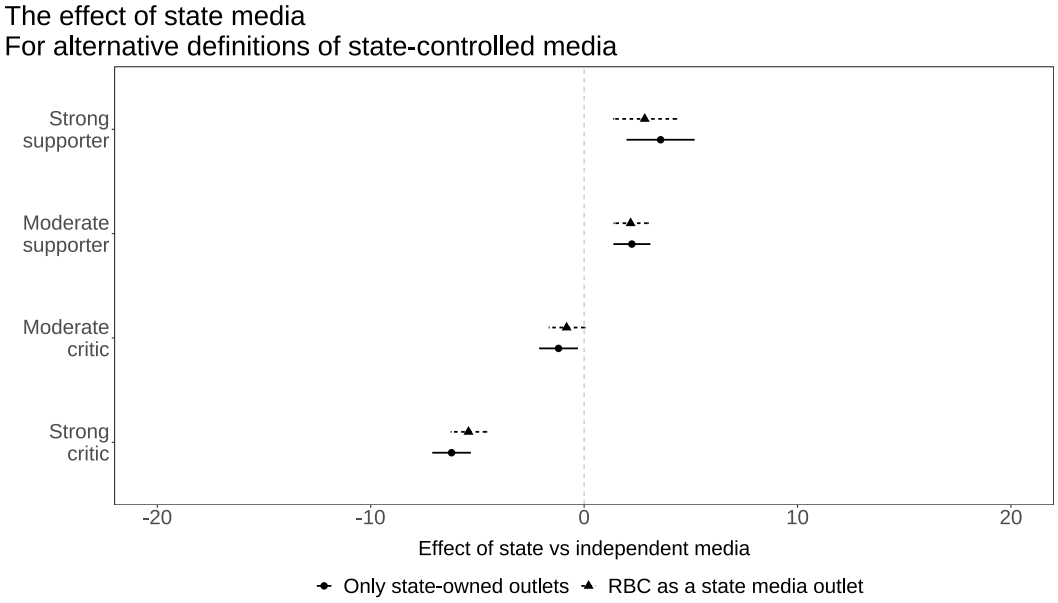

Figure B7: Effect of changing the treatment from an independent to state media outlet on evaluations of news stories, by approval of Vladimir Putin. Here, RBC is considered as a state-controlled outlet. Calculations based on a linear regression of news story evaluations, accounting for state control and presidential approval; results from the main study. 95% confidence intervals are shown

Regression Tables for the Experiment

Table B4: Treatment effect in the main study

	Model 1	Model 2	Model 3
Intercept	0.368***	0.408***	−0.568***
	(0.014)	(0.015)	(0.054)
Source: Critical	0.052***	0.053***	0.230***
	(0.007)	(0.007)	(0.025)
Source: State-controlled	−0.012	−0.010	−0.054*
	(0.006)	(0.007)	(0.024)
Source: RBC	0.043***	0.043***	0.194***
	(0.008)	(0.009)	(0.033)
Somewhat disapprove	−0.013	−0.006	−0.057
	(0.008)	(0.008)	(0.030)
Somewhat approve	−0.022**	−0.015	−0.101***
	(0.008)	(0.008)	(0.030)
Certainly approve	−0.032**	−0.028*	−0.145***
	(0.011)	(0.012)	(0.042)
Story order	0.006***	0.005***	0.025***
	(0.000)	(0.000)	(0.001)
Source: Critical*Somewhat disapprove	−0.036***	−0.040***	−0.162***
	(0.010)	(0.010)	(0.037)
Source: State-controlled*Somewhat disapprove	0.014	0.009	0.062
	(0.009)	(0.009)	(0.034)
Source: RBC*Somewhat disapprove	−0.011	−0.013	−0.049
	(0.012)	(0.012)	(0.048)
Source: Critical*Somewhat approve	−0.058***	−0.060***	−0.259***
	(0.009)	(0.010)	(0.036)
Source: State-controlled*Somewhat approve	0.026**	0.024*	0.117***
	(0.009)	(0.009)	(0.034)
Source: RBC*Somewhat approve	−0.022	−0.019	−0.096*
	(0.012)	(0.012)	(0.047)
Source: Critical*Certainly approve	−0.067***	−0.061***	−0.303***
	(0.013)	(0.014)	(0.052)
Source: State-controlled*Certainly approve	0.026*	0.032*	0.117*
	(0.013)	(0.013)	(0.048)
Source: RBC*Certainly approve	−0.038*	−0.029	−0.168*
	(0.017)	(0.017)	(0.067)
Age		−0.004***	
		(0.000)	
Female		−0.027***	
		(0.003)	
Higher education		0.010**	
		(0.003)	
R^2	0.101	0.102	
Adj. R^2	0.100	0.102	
Num. obs.	228624	209474	228624
RMSE	0.471	0.471	
N Clusters	17961	16215	
AIC			290387.749
BIC			291111.537
Log Likelihood			−145123.874
Deviance			290247.749

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from regression models (OLS in Models 1 and 2, logit in Model 3) with news story evaluations as dependent variables. The reference category in presidential approval is 'Certainly disapprove.' The reference category in source treatments is 'No source.' Data from the social media sample. Story and day fixed effects included. Heteroskedasticity-robust standard errors in parentheses (clustered on respondent).

Table B5: Treatment effect in the main study (individual news sources)

	Model 1
Intercept	0.368 (0.014)***
Source: Meduza	0.053 (0.008)***
Source: Rain	0.061 (0.008)***
Source: Echo of Moscow	0.040 (0.008)***
Source: RBC	0.043 (0.008)***
Source: Channel One	−0.015 (0.008)
Source: Russia-24	−0.017 (0.008)*
Source: RT	−0.016 (0.008)*
Source: RIA	0.006 (0.008)
Source: KP	−0.018 (0.008)*
Somewhat disapprove	−0.013 (0.008)
Somewhat approve	−0.022 (0.008)**
Certainly approve	−0.032 (0.011)**
Story order	0.006 (0.000)***
Source: Meduza*Somewhat disapprove	−0.030 (0.012)*
Source: Rain*Somewhat disapprove	−0.049 (0.012)***
Source: Echo of Moscow*Somewhat disapprove	−0.030 (0.012)**
Source: RBC*Somewhat disapprove	−0.011 (0.012)
Source: Channel One*Somewhat disapprove	0.007 (0.012)
Source: Russia-24*Somewhat disapprove	0.020 (0.012)
Source: RT*Somewhat disapprove	0.021 (0.012)
Source: RIA*Somewhat disapprove	0.007 (0.012)
Source: KP*Somewhat disapprove	0.014 (0.012)
Source: Meduza*Somewhat approve	−0.056 (0.012)***
Source: Rain*Somewhat approve	−0.074 (0.012)***
Source: Echo of Moscow*Somewhat approve	−0.043 (0.012)***
Source: RBC*Somewhat approve	−0.022 (0.012)
Source: Channel One*Somewhat approve	0.012 (0.012)
Source: Russia-24*Somewhat approve	0.039 (0.012)***
Source: RT*Somewhat approve	0.039 (0.012)***
Source: RIA*Somewhat approve	0.015 (0.012)
Source: KP*Somewhat approve	0.024 (0.012)*
Source: Meduza*Certainly approve	−0.064 (0.017)***
Source: Rain*Certainly approve	−0.074 (0.016)***
Source: Echo of Moscow*Certainly approve	−0.065 (0.016)***
Source: RBC*Certainly approve	−0.038 (0.017)*
Source: Channel One*Certainly approve	0.036 (0.017)*
Source: Russia-24*Certainly approve	0.042 (0.017)*
Source: RT*Certainly approve	0.043 (0.017)**
Source: RIA*Certainly approve	0.000 (0.017)
Source: KP*Certainly approve	0.007 (0.016)
R^2	0.101
Adj. R^2	0.101
Num. obs.	228624
RMSE	0.471
N Clusters	17961

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from linear regressions with news story evaluations as dependent variables. Data from the social media sample. The reference category in presidential approval is 'Certainly disapprove.' The reference category in source treatments is 'No source.' Story and day fixed effects included. Heteroskedasticity-robust standard errors in parentheses (clustered on respondent).

Table B6: Treatment effect in the main study (alternative definitions of state-controlled media)

	Model 1	Model 2
Intercept	0.368***	0.368***
	(0.014)	(0.014)
Source: Critical	0.052***	0.052***
	(0.007)	(0.007)
Source: State-controlled	−0.003	
	(0.006)	
Somewhat disapprove	−0.013	−0.013
	(0.008)	(0.008)
Somewhat approve	−0.022**	−0.022**
	(0.008)	(0.008)
Certainly approve	−0.032**	−0.032**
	(0.011)	(0.011)
Story order	0.006***	0.006***
	(0.000)	(0.000)
Source: Critical*Somewhat disapprove	−0.036***	−0.036***
	(0.010)	(0.010)
Source: State-controlled*Somewhat disapprove	0.010	
	(0.009)	
Source: Critical*Somewhat approve	−0.058***	−0.058***
	(0.009)	(0.009)
Source: State-controlled*Somewhat approve	0.018*	
	(0.009)	
Source: Critical*Certainly approve	−0.067***	−0.067***
	(0.013)	(0.013)
Source: State-controlled*Certainly approve	0.015	
	(0.013)	
Source: State-owned		−0.011
		(0.007)
Source: Other		0.013
		(0.007)
Source: State-owned*Somewhat disapprove		0.014
		(0.009)
Source: Other*Somewhat disapprove		0.002
		(0.010)
Source: State-owned*Somewhat approve		0.027**
		(0.009)
Source: Other*Somewhat approve		0.001
		(0.010)
Source: State-owned*Certainly approve		0.030*
		(0.013)
Source: Other*Certainly approve		−0.015
		(0.014)
R^2	0.100	0.100
Adj. R^2	0.100	0.100
Num. obs.	228624	228624
RMSE	0.472	0.472
N Clusters	17961	17961

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from linear regression models. with news story evaluations as dependent variables. In Model 1, RBC is treated as a state-controlled outlet. In Model 2, state-controlled outlets are divided into 'State-owned' and 'Other.' In Model 1, RBC is treated as a state-controlled outlet. The reference category in presidential approval is 'Certainly disapprove.' The reference category in source treatments is 'No source.' Data from the social media sample. Story and day fixed effects included. Heteroskedasticity-robust standard errors in parentheses (clustered on respondent).

Table B7: Treatment effect in the main study (alternative measures of pro-regime attitudes)

	Model 1	Model 2
Intercept	0.355***	0.384***
	(0.007)	(0.009)
Source: Critical	0.023***	0.047***
	(0.004)	(0.008)
Source: State-controlled	−0.003	−0.009
	(0.004)	(0.008)
Source: RBC	0.028***	0.040***
	(0.005)	(0.010)
Proud of Crimea	−0.021**	
	(0.007)	
Story order	0.006***	0.006***
	(0.000)	(0.000)
Source: Critical*Proud of Crimea	−0.032***	
	(0.008)	
Source: State-controlled*Proud of Crimea	0.022**	
	(0.008)	
Source: RBC*Proud of Crimea	−0.001	
	(0.010)	
EU-Ukraine beliefs: In-between		−0.038***
		(0.008)
EU-Ukraine beliefs: Pro-regime		−0.037***
		(0.008)
Critical*EU-Ukraine In-between		−0.022*
		(0.010)
State-controlled*EU-Ukraine In-between		0.015
		(0.009)
Source: RBC*EU-Ukraine In-between		−0.004
		(0.012)
Source: Critical*EU-Ukraine Pro-regime		−0.053***
		(0.010)
Source: State-controlled*EU-Ukraine Pro-regime		0.013
		(0.009)
Source: RBC*EU-Ukraine Pro-regime		−0.019
		(0.012)
R^2	0.099	0.099
Adj. R^2	0.099	0.099
Num. obs.	274504	285253
RMSE	0.472	0.472
N Clusters	21568	22425

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from linear regressions with news story evaluations as dependent variables. Data from the social media sample. Approval measures: pride in Crimea annexation (Model 1), beliefs about EU and Ukraine (Model 2); see text for details Story and day fixed effects included. Heteroskedasticity-robust standard errors in parentheses (clustered on respondent).

Table B8: Treatment effect in the main study given news story content

	Model 1	Model 2
Intercept	0.461 (0.016)***	0.487 (0.017)***
Source: Critical	0.021 (0.013)	0.075 (0.015)***
Source: State-controlled	−0.020 (0.012)	0.019 (0.014)
Source: RBC	0.044 (0.016)**	0.086 (0.019)***
Somewhat disapprove	−0.120 (0.015)***	0.014 (0.017)
Somewhat approve	−0.232 (0.014)***	0.015 (0.017)
Certainly approve	−0.259 (0.019)***	−0.037 (0.026)
Story order	0.006 (0.000)***	0.005 (0.000)***
Neutral story	−0.037 (0.013)**	
Pro-Russia story	−0.203 (0.013)***	
Source: Critical*Somewhat disapprove	−0.027 (0.018)	−0.062 (0.021)**
Source: State-controlled*Somewhat disapprove	0.015 (0.017)	−0.013 (0.020)
Source: RBC*Somewhat disapprove	−0.038 (0.023)	−0.056 (0.028)*
Source: Critical*Somewhat approve	−0.018 (0.017)	−0.080 (0.021)***
Source: State-controlled*Somewhat approve	0.039 (0.016)*	0.008 (0.020)
Source: RBC*Somewhat approve	−0.021 (0.022)	−0.081 (0.027)**
Source: Critical*Certainly approve	−0.040 (0.024)	−0.064 (0.031)*
Source: State-controlled*Certainly approve	0.002 (0.022)	0.030 (0.029)
Source: RBC*Certainly approve	−0.060 (0.030)*	−0.008 (0.040)
Source: Critical*Neutral story	0.039 (0.016)*	
Source: State-controlled*Neutral story	0.011 (0.015)	
Source: RBC*Neutral story	0.002 (0.020)	
Source: Critical*Pro-Russia story	0.040 (0.016)*	
Source: State-controlled*Pro-Russia story	0.011 (0.015)	
Source: RBC*Pro-Russia story	−0.002 (0.020)	
Somewhat disapprove*Neutral story	0.120 (0.019)***	
Somewhat approve*Neutral story	0.226 (0.018)***	
Certainly approve*Neutral story	0.189 (0.025)***	
Somewhat disapprove*Pro-Russia story	0.169 (0.018)***	
Somewhat approve*Pro-Russia story	0.340 (0.018)***	
Certainly approve*Pro-Russia story	0.431 (0.026)***	
Source: Critical*Somewhat disapprove*Neutral story	−0.009 (0.023)	
Source: State-controlled*Somewhat disapprove*Neutral story	−0.001 (0.021)	
Source: RBC*Somewhat disapprove*Neutral story	0.038 (0.029)	
Source: Critical*Somewhat approve*Neutral story	−0.058 (0.022)**	
Source: State-controlled*Somewhat approve*Neutral story	−0.018 (0.021)	
Source: RBC*Somewhat approve*Neutral story	0.011 (0.028)	
Source: Critical*Certainly approve*Neutral story	−0.018 (0.031)	
Source: State-controlled*Certainly approve*Neutral story	0.048 (0.028)	
Source: RBC*Certainly approve*Neutral story	0.054 (0.039)	
Source: Critical*Somewhat disapprove*Pro-Russia story	−0.015 (0.022)	
Source: State-controlled*Somewhat disapprove*Pro-Russia story	−0.006 (0.021)	
Source: RBC*Somewhat disapprove*Pro-Russia story	0.036 (0.029)	
Source: Critical*Somewhat approve*Pro-Russia story	−0.049 (0.022)*	
Source: State-controlled*Somewhat approve*Pro-Russia story	−0.017 (0.021)	
Source: RBC*Somewhat approve*Pro-Russia story	−0.017 (0.028)	
Source: Critical*Certainly approve*Pro-Russia story	−0.061 (0.032)	
Source: State-controlled*Certainly approve*Pro-Russia story	0.016 (0.030)	
Source: RBC*Certainly approve*Pro-Russia story	0.008 (0.040)	
Pre-selected story		−0.126 (0.013)***
Source: Critical*Pre-selected story		−0.028 (0.016)
Source: State-controlled*Pre-selected story		−0.036 (0.015)*
Source: RBC*Pre-selected story		−0.051 (0.020)*
Somewhat disapprove*Pre-selected story		−0.030 (0.018)
Somewhat approve*Pre-selected story		−0.044 (0.018)*
Certainly approve*Pre-selected story		0.006 (0.026)
Source: Critical*Somewhat disapprove*Pre-selected story		0.031 (0.023)
Source: State-controlled*Somewhat disapprove*Pre-selected story		0.031 (0.021)
Source: RBC*Somewhat disapprove*Pre-selected story		0.054 (0.030)
Source: Critical*Somewhat approve*Pre-selected story		0.024 (0.023)
Source: State-controlled*Somewhat approve*Pre-selected story		0.021 (0.021)
Source: RBC*Somewhat approve*Pre-selected story		0.070 (0.030)*
Source: Critical*Certainly approve*Pre-selected story		−0.005 (0.033)
Source: State-controlled*Certainly approve*Pre-selected story		−0.005 (0.030)
Source: RBC*Certainly approve*Pre-selected story		−0.030 (0.042)
R^2	0.027	0.019
Adj. R^2	0.027	0.019
Num. obs.	228624	228624
RMSE	0.490	0.492
N Clusters	17961	17961

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from linear regressions with news story evaluations as dependent variables. Data from the social media sample. The reference category in presidential approval is 'Certainly disapprove.' The reference category in story content in Model 1 is 'Critical story.' The reference category in story content in Model 2 is 'Current story.' Day fixed effects included. Heteroskedasticity-robust standard errors in parentheses (clustered on respondent).

Online Appendix C: Additional Evidence From the Nationally Representative Survey (Study 2)

For practical reasons, the study on a nationally representative sample included three news stories from the online survey (two of them were shown in two versions; see below) and only two news sources, assigned randomly with an approximately equal probability: *Channel One*, the main state-run television station, and *Echo of Moscow*, a liberal radio station/website. Respondents saw the logo of either *Channel One*, or *Echo of Moscow*, and interviewers emphasized the name of the news organization before each news story. After each vignette, respondents were asked to evaluate the truthfulness of the message on a scale from 0 to 3 (rescaled in the analysis to take values from 0 to 1).

The experimental vignettes and treatments were embedded in a nationally representative omnibus survey conducted monthly by a Russian polling firm, Levada Center. The omnibus survey uses in-home visits and relies on random sampling of the Russian population using a multi-stage sampling procedure (first randomly selecting urban and rural areas, then randomly selecting sampling stations within these primary sampling units, then randomly selecting households and individuals within households). The sample is stratified by sociodemographic characteristics based on the recent census data and on the recent demographic statistics, and weights are provided to further adjust for the discrepancies between the sample and the Russian population. The survey was fielded on August 22–28, 2019, covering 140 cities, towns, and rural settlements in 50 Russian regions. The sample size is 1608 respondents.

News Stories in the National Survey

Economic struggles, version 1 (the Russian statistical agency, Rosstat, is not mentioned). *For 80% of Russian families, it is difficult to buy all the necessary goods and "make ends meet". More than half of the families cannot replace the simplest furniture that falls into disrepair.*

Economic struggles, version 2 (Rosstat is mentioned). *For 80% of Russian families, it is difficult to buy all the necessary goods and "make ends meet." This is what new research by the Federal service of government statistics says. More than half of the families cannot replace the simplest furniture that falls into disrepair.* (This version implies that the government has admitted the problem.)

Ukrainian economy, version 1 (Russia is not mentioned). *The Ukrainian economy is growing at a slower rate than the world economy. According to analysts, in 2019, the world's GDP will grow by almost 4 percent, and the Ukrainian GDP by less than 3 percent.*

Ukrainian economy, version 2 (Russia is mentioned). *The Ukrainian economy is growing at a slower rate than the world economy, but faster than the Russian economy. According to analysts, in 2019 the world's GDP will grow by almost 4 percent, Ukrainian GDP by less than 3 percent, and Russian GDP by only 1.6 percent. The Ukrainian economy*

has been growing faster than the Russian economy for the fourth year in a row. (This version is more politicized by including a direct comparison with Russia.)

U.S. submarine. *The U.S. submarine Hartford froze into Arctic ice during military exercises. The submarine was supposed to rehearse a Tomahawk launch against a hypothetical aggressor—Russian ships. But something went wrong, and the submarine could not rise to the surface. A helicopter had to be called in order to save the vessel from the captivity of ice.* (This is a fake story fabricated by the Russian state propaganda.)

The Effect of State-Run Media, by Putin Approval

Figure C1 shows the estimated effect of changing the treatment from *Echo of Moscow* to *Channel One*. In the left panel, regime support is measured as respondent's vote choice in the last presidential election in order to account for the differences between different groups of Putin critics: liberal and pro-Western individuals, who are more likely to see the liberal-leaning *Echo of Moscow* as like-minded, and nationalists or communists. In the right panel, regime support is measured as approval of Vladimir Putin. Also see Table C1.

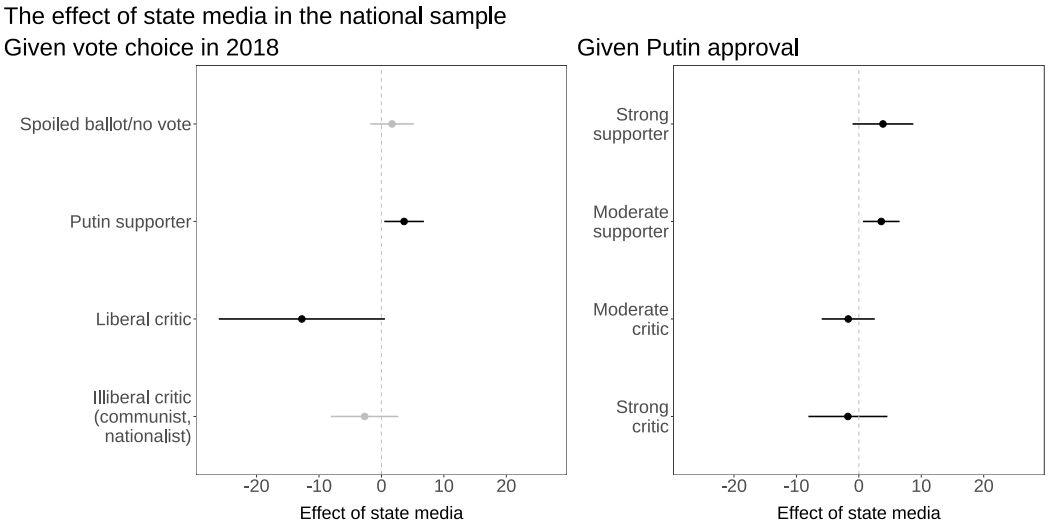

Figure C1: The effect of changing the treatment from the independent (Echo of Moscow) to state-run (Channel One) media outlet on evaluations of news stories, by respondent's vote in the 2018 presidential election or by approval of Vladimir Putin. Calculations based on a linear regression of news story evaluations, accounting for state control, 2018 vote/Putin approval, and demographic covariates (see text for details); results from the national survey (Study 2). 95% confidence intervals are shown

Regression Table for the Experiment

Table C1: Treatment effect in the nationally representative survey

	Model 1	Model 2
Intercept	0.738***	0.755***
	(0.035)	(0.036)
Channel One	−0.018	−0.027
	(0.032)	(0.028)
Female	0.045***	0.046***
	(0.012)	(0.012)
Age	0.000	0.000
	(0.000)	(0.000)
Education	−0.008*	−0.008
	(0.004)	(0.004)
Somewhat disapprove	0.019	
	(0.030)	
Somewhat approve	−0.041	
	(0.026)	
Certainly approve	−0.056	
	(0.030)	
Channel One*Somewhat disapprove	0.001	
	(0.039)	
Channel One*Somewhat approve	0.053	
	(0.036)	
Channel One*Certainly approve	0.056	
	(0.041)	
Voted liberal		0.086
		(0.049)
Voted for Putin		−0.067**
		(0.025)
Spoiled ballot/no vote		−0.044
		(0.027)
Channel One*Liberal		−0.101
		(0.073)
Channel One*Putin		0.063*
		(0.032)
Channel One*No vote		0.044
		(0.033)
R^2	0.186	0.185
Adj. R^2	0.182	0.181
Num. obs.	3302	3166
RMSE	0.301	0.302
N Clusters	1533	1473

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from linear regressions with news story evaluations as dependent variables. In Model 1, regime support is measured via presidential approval. In Model 2, regime support is measured via vote outcome in the 2018 presidential election. The reference category in presidential approval is 'Certainly disapprove.' The reference category in 2018 vote is 'Communist/nationalist.' Data from the Levada sample. Story fixed effects included. Heteroskedasticity-robust standard errors in parentheses (clustered on respondent).

Online Appendix D: Additional Evidence From the OMI Online Panel (the Media Perceptions Survey, Study 3)

Questions About Individual News Sources

[*These questions were asked for the following news outlets: RT, Channel One, Russia-24, RIA*]

Would you say that these outlets provide a full sense of what is happening, do not ignore important topics or facts?

Mostly yes; Often ignore something important; Do not know the outlet well/difficult to say

Would you say that these outlets provide accurate and truthful information?

Mostly yes; Often provide false or inaccurate information; Do not know the outlet well/difficult to say

Would you say that these outlets are politically unbiased, convey information in a neutral fashion?

Mostly yes; Mostly convey information from the standpoint of the authorities; Mostly criticize the authorities; Do not know the outlet well/difficult to say

Would you say that these outlets are independent in their editorial policies, they themselves decide what and how to cover?

Mostly yes; The authorities decide for them; Do not know the outlet well/difficult to say

Regression Tables for the Media Perceptions Survey

Table D1: State and independent media usage

	Main study			OMI Survey			National survey	
	State media	State TV	Independent	State media	State TV	Independent	State TV	Independent
Intercept	0.396***	0.057***	0.704***	0.506***	0.214***	0.249***	0.339***	0.468***
	(0.013)	(0.012)	(0.013)	(0.032)	(0.033)	(0.033)	(0.054)	(0.061)
Somewhat disapprove	0.194***	0.177***	−0.196***	0.149***	0.182***	−0.090**	0.146***	−0.127**
	(0.010)	(0.009)	(0.010)	(0.028)	(0.031)	(0.028)	(0.044)	(0.045)
Somewhat approve	0.319***	0.393***	−0.332***	0.223***	0.340***	−0.168***	0.269***	−0.085*
	(0.009)	(0.009)	(0.009)	(0.026)	(0.028)	(0.027)	(0.038)	(0.041)
Certainly approve	0.390***	0.491***	−0.424***	0.262***	0.392***	−0.177***	0.255***	−0.140**
	(0.012)	(0.013)	(0.012)	(0.027)	(0.032)	(0.030)	(0.039)	(0.043)
Age	0.004**	0.021***	−0.011***	0.046***	0.058***	0.013	0.006***	−0.002**
	(0.001)	(0.001)	(0.001)	(0.006)	(0.007)	(0.007)	(0.001)	(0.001)
Female	−0.012	0.022**	−0.110***	0.027	0.074***	−0.038*	0.027	−0.054*
	(0.007)	(0.007)	(0.007)	(0.016)	(0.019)	(0.018)	(0.019)	(0.025)
Education	0.039***	−0.008	0.125***	−0.015	−0.021	0.107***	−0.004	0.017*
	(0.010)	(0.009)	(0.009)	(0.016)	(0.020)	(0.017)	(0.007)	(0.008)
R^2	0.089	0.156	0.124	0.084	0.124	0.045	0.126	0.027
Adj. R^2	0.089	0.155	0.124	0.081	0.122	0.042	0.122	0.023
Num. obs.	16596	16596	16596	2114	2114	2114	1560	1541

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from a linear regression with state and independent media usage as dependent variables. Data from the main study, media perceptions survey (OMI), and the nationally representative survey (Levada). In the regressions for the main study and for the OMI survey, education is dichotomized, and age is an ordinal measure. Heteroskedasticity-robust standard errors in parentheses.

Table D2: Trust in state and independent media

	State media	State TV	Independent
Intercept	0.500***	0.173***	0.292***
	(0.033)	(0.031)	(0.030)
Somewhat disapprove	0.184***	0.172***	−0.118***
	(0.030)	(0.028)	(0.028)
Somewhat approve	0.353***	0.411***	−0.236***
	(0.027)	(0.027)	(0.025)
Certainly approve	0.427***	0.583***	−0.262***
	(0.026)	(0.030)	(0.026)
Age	0.015*	0.013	0.001
	(0.006)	(0.008)	(0.006)
Female	0.048**	0.114***	−0.036*
	(0.017)	(0.020)	(0.015)
Education	−0.065***	−0.078***	0.073***
	(0.017)	(0.020)	(0.015)
R^2	0.142	0.178	0.079
Adj. R^2	0.140	0.176	0.077
Num. obs.	2114	2114	2114

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from a linear regression with trust in state and independent media as dependent variables. Data from the OMI survey (media perceptions survey). Heteroskedasticity-robust standard errors in parentheses.

Table D3: State media evaluations: Completeness

	RT	Channel 1	Russia-24	RIA
Y: Intercept	−0.216 (0.168)	1.869 (0.313)***	1.499 (0.270)***	0.163 (0.171)
Y: Critic	−0.730 (0.113)***	−2.115 (0.214)***	−1.595 (0.181)***	−0.584 (0.114)***
Y: Female	−0.918 (0.110)***	0.368 (0.198)	0.188 (0.176)	−0.238 (0.112)*
Y: Age	0.042 (0.042)	0.319 (0.082)***	0.340 (0.073)***	0.113 (0.043)**
Y: Higher education	0.333 (0.112)**	−0.480 (0.201)*	−0.219 (0.178)	0.261 (0.113)*
N: Intercept	−0.732 (0.177)***	1.565 (0.302)***	0.930 (0.268)***	−0.493 (0.179)**
N: Critic	0.588 (0.113)***	−0.370 (0.203)	0.115 (0.178)	0.730 (0.114)***
N: Female	−0.869 (0.112)***	0.044 (0.186)	−0.136 (0.170)	−0.560 (0.113)***
N: Age	−0.038 (0.043)	0.317 (0.078)***	0.280 (0.071)***	0.160 (0.044)***
N: Higher education	0.409 (0.114)***	0.037 (0.190)	0.183 (0.173)	0.270 (0.114)*
AIC	4194.789	3242.922	3495.025	4430.072
BIC	4251.353	3299.486	3551.588	4486.635
Log Likelihood	−2087.395	−1611.461	−1737.513	−2205.036
Deviance	4174.789	3222.922	3475.025	4410.072
Num. obs.	2114	2114	2114	2114
K	3	3	3	3

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from multinomial regressions with media evaluations as dependent variables. Outcomes: Mostly complete (Y in the table), Omits important information (N in the table), and Hard to say (reference category). Data from the OMI survey (media perceptions survey). Standard errors in parentheses.

Table D4: State media evaluations: Accuracy

	RT	Channel 1	Russia-24	RIA
Y: Intercept	−0.035 (0.162)	1.956 (0.310)***	1.609 (0.264)***	0.280 (0.165)
Y: Critic	−0.613 (0.108)***	−1.849 (0.206)***	−1.299 (0.173)***	−0.437 (0.110)***
Y: Female	−0.960 (0.106)***	0.041 (0.199)	−0.071 (0.173)	−0.239 (0.108)*
Y: Age	0.032 (0.040)	0.355 (0.082)***	0.303 (0.070)***	0.067 (0.042)
Y: Higher education	0.357 (0.108)***	−0.498 (0.203)*	−0.161 (0.174)	0.294 (0.109)**
N: Intercept	−0.995 (0.189)***	1.396 (0.304)***	0.841 (0.268)**	−0.836 (0.187)***
N: Critic	0.972 (0.122)***	0.126 (0.199)	0.633 (0.175)***	1.018 (0.120)***
N: Female	−0.964 (0.118)***	−0.261 (0.191)	−0.489 (0.172)**	−0.592 (0.117)***
N: Age	−0.062 (0.045)	0.297 (0.080)***	0.226 (0.070)**	0.152 (0.045)***
N: Higher education	0.576 (0.120)***	0.029 (0.195)	0.128 (0.173)	0.290 (0.118)*
AIC	4158.796	3230.442	3436.410	4391.247
BIC	4215.359	3287.006	3492.974	4447.811
Log Likelihood	−2069.398	−1605.221	−1708.205	−2185.624
Deviance	4138.796	3210.442	3416.410	4371.247
Num. obs.	2114	2114	2114	2114
K	3	3	3	3

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from multinomial regressions with media evaluations as dependent variables. Outcomes: Mostly accurate (Y in the table), Often gives false information (N in the table), and Hard to say (reference category). Data from the OMI survey (media perceptions survey). Standard errors in parentheses.

Table D5: State media evaluations: Independence

	RT	Channel 1	Russia-24	RIA
Y: Intercept	−0.072 (0.166)	1.278 (0.283)***	1.344 (0.259)***	−0.015 (0.175)
Y: Critic	−0.605 (0.112)***	−1.597 (0.201)***	−1.369 (0.177)***	−0.548 (0.118)***
Y: Female	−0.853 (0.109)***	−0.138 (0.186)	−0.252 (0.170)	−0.340 (0.115)**
Y: Age	0.019 (0.042)	0.204 (0.075)**	0.163 (0.067)*	0.082 (0.044)
Y: Higher education	0.365 (0.111)**	−0.551 (0.190)**	−0.361 (0.172)*	0.142 (0.116)
N: Intercept	−0.757 (0.176)***	1.437 (0.257)***	1.347 (0.241)***	−0.473 (0.169)**
N: Critic	0.869 (0.113)***	0.356 (0.164)*	0.463 (0.153)**	0.740 (0.107)***
N: Female	−0.955 (0.111)***	−0.193 (0.165)	−0.453 (0.155)**	−0.438 (0.107)***
N: Age	−0.016 (0.042)	0.250 (0.067)***	0.187 (0.061)**	0.158 (0.041)***
N: Higher education	0.525 (0.113)***	−0.114 (0.169)	−0.006 (0.157)	0.129 (0.108)
AIC	4273.702	3009.900	3356.703	4444.885
BIC	4330.265	3066.463	3413.267	4501.448
Log Likelihood	−2126.851	−1494.950	−1668.352	−2212.442
Deviance	4253.702	2989.900	3336.703	4424.885
Num. obs.	2114	2114	2114	2114
K	3	3	3	3

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from multinomial regressions with media evaluations as dependent variables. Outcomes: Mostly independent from authorities (Y in the table), Not independent (N in the table), and Hard to say (reference category). Data from the OMI survey (media perceptions survey). Standard errors in parentheses.

Table D6: State media evaluations: Political bias

	RT	Channel 1	Russia-24	RIA
Anti: Intercept	−2.735 (0.410)***	−1.039 (0.619)	−1.176 (0.592)*	−3.313 (0.456)***
Anti: Critic	−0.020 (0.256)	−0.347 (0.397)	0.035 (0.398)	0.152 (0.276)
Anti: Female	−0.708 (0.258)**	0.542 (0.421)	−0.304 (0.395)	0.035 (0.280)
Anti: Age	0.049 (0.098)	−0.188 (0.174)	−0.076 (0.168)	0.197 (0.105)
Anti: Higher education	0.552 (0.270)*	−0.166 (0.399)	−0.298 (0.398)	0.381 (0.290)
Y: Intercept	−0.186 (0.176)	1.545 (0.308)***	1.232 (0.278)***	−0.041 (0.179)
Y: Critic	−0.741 (0.118)***	−1.710 (0.211)***	−1.294 (0.186)***	−0.412 (0.118)***
Y: Female	−0.951 (0.116)***	−0.064 (0.201)	−0.143 (0.184)	−0.392 (0.117)***
Y: Age	0.037 (0.044)	0.182 (0.082)*	0.247 (0.074)***	0.074 (0.046)
Y: Higher education	0.413 (0.117)***	−0.310 (0.202)	−0.176 (0.183)	0.201 (0.119)
Pro: Intercept	−0.387 (0.171)*	1.614 (0.284)***	1.245 (0.261)***	−0.448 (0.170)**
Pro: Critic	0.467 (0.110)***	−0.130 (0.184)	0.093 (0.169)	0.470 (0.108)***
Pro: Female	−1.106 (0.110)***	−0.222 (0.181)	−0.421 (0.170)*	−0.500 (0.108)***
Pro: Age	−0.024 (0.042)	0.300 (0.075)***	0.311 (0.069)***	0.218 (0.042)***
Pro: Higher education	0.541 (0.112)***	0.184 (0.182)	0.264 (0.169)	0.139 (0.109)
AIC	4714.292	3222.130	3592.227	4900.644
BIC	4799.137	3306.975	3677.072	4985.489
Log Likelihood	−2342.146	−1596.065	−1781.113	−2435.322
Deviance	4684.292	3192.130	3562.227	4870.644
Num. obs.	2114	2114	2114	2114
K	4	4	4	4

$^{***}p < 0.001$; $^{**}p < 0.01$; $^{*}p < 0.05$. Estimates from multinomial regressions with media evaluations as dependent variables. Outcomes: Mostly neutral (Y in the table), Anti-government (Anti in the table), Pro-government (Pro in the table), and Hard to say (reference category). Data from the OMI survey (media perceptions survey). Standard errors in parentheses.

Media Usage

In all three surveys, I asked respondents to report the media outlets that they typically use to learn the news, and then I constructed dummy variables that indicate whether a respondent uses any of state-run television stations or any of critical news outlets. Then, I regressed these dummies on presidential approval and covariates, using the same model setup as with the analysis of media trust. Figure D1 plots the probabilities of using state-run television and foreign or critical media outlets across three samples.[2] Also see Table D1.

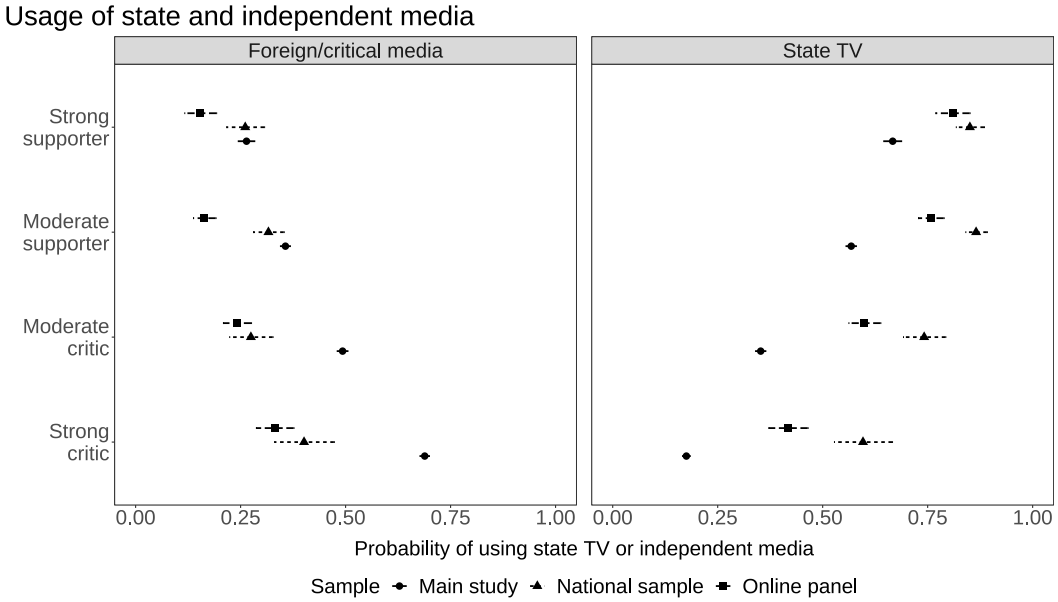

Figure D1: The probability of using independent media and state television, by approval of Vladimir Putin. Calculation based on linear regressions of media usage (dummy variables) on presidential approval and demographic covariates; results from the main study, from the nationally representative sample (Study 2), and from the OMI online panel (Study 3). 95% confidence intervals are shown

[2]In the Levada survey, the definition of critical media is somewhat different: instead of naming specific news outlets, respondents indicated the usage of online/cable television channels (*Rain* and *RBC*), business news outlets (most of which are editorially independent), and foreign websites. Combining these three categories, we can obtain an approximation for the usage of critical media, which, however, somewhat overstates it, as *RBC* and some other business news outlets are influenced by the government.

Knowledge of Independent Media and Trust in/Usage of State Media

Figure D2 shows the predicted probabilities of trust in state television and the usage of state television among supporters depending on whether they know of any critical news outlets or not (data from the OMI survey). The model builds on Figures 4 and D1, adding an interaction between approval and knowledge of independent media. Strong supporters trust state television a great deal regardless of their awareness of independent outlets. Moderate supporters who are aware of independent media may trust state television somewhat less, although the confidence intervals for two estimates overlap. The usage of state television similarly does not depend much on the knowledge of independent media.

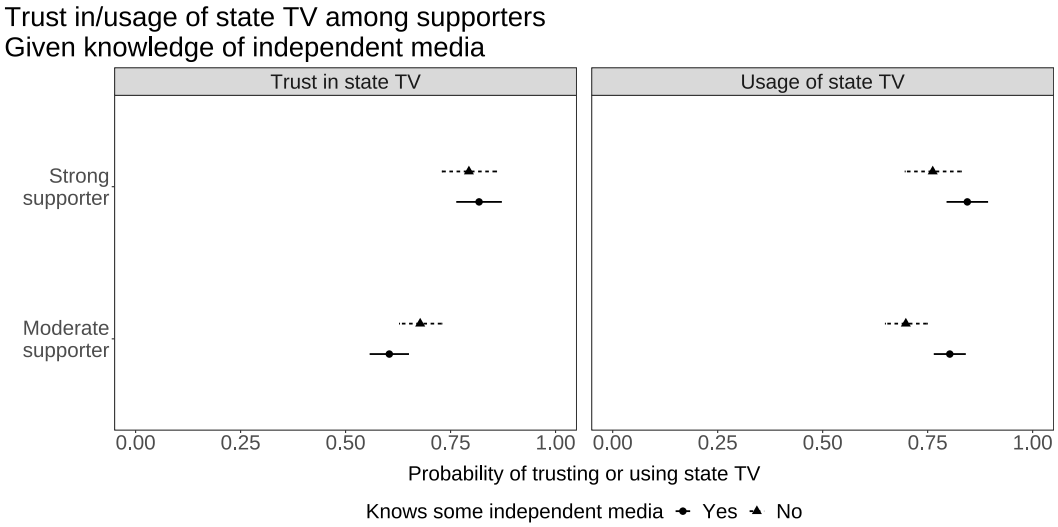

Figure D2: Probability of trusting or using state media depending on knowledge of independent media. Calculation based on a linear regression of media trust or media usage (dummy variables) on presidential approval, knowledge of independent media, and demographic covariates; results from the OMI online panel (Study 3). 95% confidence intervals are shown

Knowledge of Independent Media and the Evaluations of State Media

The models here are analogous to the analysis of perceptions of accuracy and media bias in the main text; in this case, I add an interaction between approval and knowledge of independent media and control for the knowledge of the state media outlet in question.

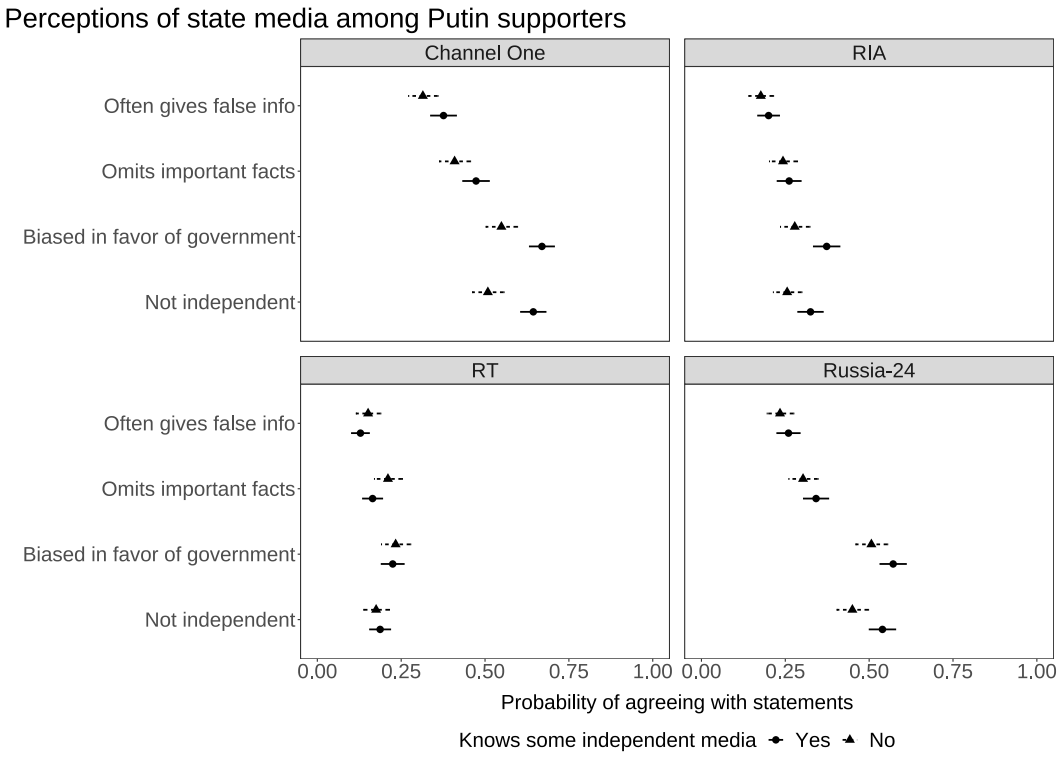

Figure D3: Probability that Putin supporters evaluate state media negatively along various dimensions. Calculations based on multinomial regressions of news source evaluations on knowledge of independent media and covariates (see text for details); results from the OMI online panel (Study 3). 95% confidence intervals are shown

References

Bergemann, Dirk, and Stephen Morris. 2019. "Information Design: A Unified Perspective." *Journal of Economic Literature* 57 (1): 44–95.

Gehlbach, Scott, and Konstantin Sonin. 2014. "Government Control of the Media." *Journal of Public Economics* 118: 163–71.

Greene, Samuel, and Graeme Robertson. 2019. *Putin v. The People: The Perilous Politics of a Divided Russia*. Yale University Press.

Kamenica, Emir, and Matthew Gentzkow. 2011. "Bayesian Persuasion." *American Economic Review* 101 (6): 2590–2615.

Schimpfössl, Elisabeth, and Ilya Yablokov. 2017. "Media Elites in Post-Soviet Russia and Their Strategies for Success." *Russian Politics* 2 (1): 32–53.

Simonov, Andrey, and Justin Rao. 2022. "Demand for Online News Under Government Control: Evidence from Russia." *Journal of Political Economy* 130 (2): 259–309.