Language Affinity, Russian Media and Circumvention of Trade Sanctions: Evidence from Kazakhstan

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Abstract

Does language affinity facilitate the export of propaganda by authoritarian regimes? Through which channels can propaganda be exported? And what are its effects? We study these questions with the help of six survey waves conducted in Kazakhstan between May 2021 and September 2023, as well as an original survey conducted in October 2023. We find that for surveys conducted after February 2022, Russian-speaking respondents were more likely to justify Russia's war in Ukraine, to negate Russian responsibility and to blame Western countries for the war, even after controlling for ethnicity, while before February 2022 no measurable difference between Russian-speaking and other respondents can be found. We document that these shifts of opinion correspond to a significant increase in the consumption of Russian internet and social media content among Russian-speakers after February 2022, suggesting that this might be the channel through which Russian propaganda was effective. Finally, we show how consumers of Russian propaganda are more likely to support the war and condone the circumvention of sanctions against Russia, and document that war-relevant exports to Russia increased disproportionately in those Kazakh regions where citizens were more likely to consume Russian propaganda and condone the war.

Keywords: Authoritarian propaganda, language, sanctions circumvention, Kazakhstan, Russia-Ukraine war

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"Russkiy mir" – the Russian world, a previously obscure historical term for a Slavic civilisation based on shared ethnicity, religion and heritage. The Putin regime has revived, promulgated and debased this idea into an obscurantist anti-Western mixture of Orthodox dogma, nationalism, conspiracy theory and security-state Stalinism.

(The Economist)

1 Introduction

Even after their demise, empires can keep an influence over their former colonies through language. English – the language of the former British Empire – has become a global language that has developed into an important channel through which Western concepts and values are distributed across the world (Phillipson 2008; Crystal 2012). Similarly, through "la Francophonie", France has managed to promote its economic, political and cultural interests in its former colonies, many years after the end of the French empire (Neathery-Castro and Rousseau 2005; Vigouroux 2013). Often, the mechanism through which values and concepts are communicated are not even direct government communications or propaganda, but citizens of former colonies self-selecting into consuming specific content because the language they speak in their everyday lives is the one of the former colonizing nation.¹

In this paper, we explore this channel and its relevance in the Russia-Ukraine war for Kazakhstan – one of Russia's former colonies in Central Asia. Kazakhstan is particular in that more than 30 years after its independence and despite the state language being Kazakh, the first language of a large percentage of the population remains Russian. Many of these Russian-speaking citizens of Kazakhstan are torn between loyalty to their home country, and a close cultural affinity to what Russian state media is increasingly describing as the "Russkiy mir", or "Russian world". Through their language, they are also exposed to Russian propaganda, much more than their fellow citizens whose first language is not Russian.

We investigate whether this language affinity makes the Russian-speaking population in Kazakhstan more vulnerable to Russian propaganda than the part of the population that mainly speaks Kazakh in their daily lives. By controlling for ethnicity and other demographic characteristics, we focus specifically on language as a channel for propaganda transmission and study its political and economic consequences. Specifically, we investigate the role of Russian propaganda in political beliefs, such as the justification of the Russian full-scale invasion of Ukraine and the willingness to help Russia circumvent sanctions, as

¹A good case in point are Radio France Internationale or the BBC World Service, which for many years continued to be crucial sources of information in former French and British colonies in sub-Saharan Africa, long after these countries had become independent (Vaillant 2017; Leyris 2022).

well as its role in undertaking actions to circumvent sanctions imposed on Russia.

To answer these questions, we use data from six waves of a telephone survey biannually conducted by the Central Asia Barometer (CAB) in Kazakhstan.² The first two waves were carried out before the Russian full-scale invasion of Ukraine in the Spring and Autumn of 2021; the other waves were carried out after the invasion in the Spring and Autumn of 2022 and 2023. We complement this data with an original online survey conducted in November 2023, containing several list experiments. In addition, we use Yandex search data to document patterns of consumption for Russian language news around the time of Russia's full-scale invasion of Ukraine. The set of surveys and list experiments allow us to identify the effect of language and media consumption on political beliefs. Finally, we use transaction-level export data to investigate whether language patterns and shifts in public opinion translate into an increase in war-related exports from Kazakhstan to Russia, after the start of the Russian invasion.

We investigate potential channels that could have an effect on public opinion. Looking at the various survey waves of the CAB survey, we find that consumption of news from the internet and Russian social media is consistently higher among the Russian-speaking population in our sample, while consumption of Russian TV news has declined among this group since the start of the war, and the use of Telegram has increased. As various pro-Russian Telegram channels have been particularly prominent in covering the war (see e.g. Oleinik 2024), we believe Telegram in particular to be a potential channel influencing public opinion among Kazakhstan's Russian-speaking population. In addition, we also document a spike in searches for Russian-language information channels in Kazakhstan from February 2022 onwards. This spike is more pronounced in regions with a larger share of Russian speakers.

We hypothesize that the consumption of Russian media positively affects support for the war, and indeed, find that 4 months after the start of Russia's full-scale invasion of Ukraine, Russian-speaking respondents in Kazakhstan were 18% more likely to justify Russia's war in Ukraine than non-Russian-speaking respondents. They were also 8.8% less likely to attribute responsibility for the war to Russia, and 12% more likely to attribute responsibility to the US, the EU and NATO. Although these results fluctuate somewhat over time, they remain broadly stable until the end of 2023. As questions about the war were only asked from June 2022 onwards, we gauge the evolution of opinions over time by using a question about general attitudes towards Russia, the US and the Eurasian Economic Union, which was asked in all survey waves. Here we see that opinions towards Russia only diverged after February 2022, but not before. Before the invasion, Russian-speaking respondents in Kazakhstan even had a significantly more positive view of the United States than non-Russian-speakers.

²https://ca-barometer.org/en/cab-database

In a next step, we then use the survey experiments from our original survey to pinpoint the effect of Russian media consumption on political beliefs. Both in the direct question and when using list-experiments, we find that consumers of Russian-language media are more likely to condone Russia's actions in the war, and to support the circumvention of economic sanctions against Russia. Crucially, we are able to hold the effects for ethnicity and other demographics constant, thus being able to exclude other alternative mechanisms in play.

Finally, using detailed regional trade data we identify a spike in sanctions-related exports from Kazakhstan to Russia, after February 2022. This spike is particularly pronounced in Kazakh regions with larger shares of Russian speakers, as well as larger shares of people trusting Russian media and condoning Russia's actions in the war.

Taken together, our interpretation of these findings is the following. When the start of the full-scale Russian invasion of Ukraine triggered interest for the event in Kazakhstan, those citizens in Kazakhstan mainly using Russian in their daily lives were more likely than other Kazakh citizens to end up on the Russian internet and social media platforms, in their search for information. Watching the propaganda-content on these platforms led to a divergence in opinions about the war and about Russia's role in global politics in Kazakhstan, a divergence that so did not exist before February 2022. This divergence was then also reflected in a higher propensity to condone the circumvention of economic sanctions against Russia, potentially convincing a certain number of Kazakh entrepreneurs to participate in making warrelated deliveries to Russia. Importantly, we do not argue that Russian propaganda was the main or the only reason responsible for Kazakhstan's prominent role in sanctions circumvention during the early months of the war (Borozna and Kochtcheeva 2024). But the empirical evidence presented in this paper lets us believe that Russian propaganda played a meaningful role in shaping attitudes and behaviour.

Our paper builds on a vast literature that has investigated the effects of the media and political propaganda on political attitudes and voting. The effect of traditional media such as TV and newspapers has been extensively documented, both for democracies (DellaVigna and Kaplan 2007; Gerber et al. 2009; Durante and Knight 2012) and autocracies (Yanagizawa-Drott 2014; Adena et al. 2015; Peisakhin and Rozenas 2018; Mattingly and Yao 2022; Pan et al. 2022). Notably, a literature focusing on Russia has shown that on traditional platforms such as TV news, media that are independent from the government are able to oppose the government effectively and influence voting behavior, even in authoritarian states (Enikolopov et al. 2011, 2022).

More recently, social media has started to play an important role in influencing public opinions (Bond et al. 2012). Less accessible to government control, social media also lack the reputation mechanisms that ensure minimum content quality and are thus prone to the spread of misinformation and polarization

(Zhuravskaya et al. 2020). While social media has been used by the opposition to organize protests (Enikolopov et al. 2020) or mobilize voters (Enikolopov et al. 2022), and has been hailed as a "liberation technology" (Morozov 2011), authoritarian states also increasingly spread their messages through social media. Authoritarian governments employ different methods ranging from "flooding" popular platforms and hashtags with positive or distracting misinformation to shaping public opinion by providing different – and sometimes objectively wrong – narratives (Roberts 2018).

Beyond influencing the domestic population, research has shown that authoritarian propaganda is also increasingly spreading beyond borders, as a tool of foreign influence. China, for example, has been extensively criticized for spreading misinformation related to Covid-19 and other topics.³ Scholars have argued that for Russia in particular, influencing popular opinion and elections abroad has become an important political objective (Snyder 2018). Indeed, there is empirical evidence for Russia being the most active autocracy in this respect (Martin et al. 2019), with the Brexit referendum and the 2016 presidential elections in the US as two prominent examples (Martin et al. 2019; Eady et al. 2023).

As part of this strategy, Russian diasporas and Russian-speaking communities abroad have become an important tool in the Kremlin's foreign policy strategy. For example, since February 2022 several pro-Putin events that were then joined by far-right extremists were organized in Germany by the Russian diaspora.⁴ A similar pattern can be observed in the US, where the Russian-speaking community was active in spreading a pro-Kremlin agenda.⁵ Russian foreign influence is thus not limited to its neighboring countries, but can be described as a worldwide phenomenon. Sometimes, the results of exposure to Russian propaganda might not even be intentional, as in the case of Latvia, where the discrediting of Western vaccines on Russian TV led to a significant drop in vaccination rates among the ethnic Russian population (Larreguy and Martinez 2024).

However, with the exception of Larreguy and Martinez (2024), empirical research on the specific effects, influence and channels of Russian propaganda on Russian-speaking communities abroad remains rare. It is this research gap that we try to fill with this paper, by investigating one context where the Russian-speaking community plays a particular important role – the former Soviet republic of Kazakhstan in Central Asia.

Theoretically, the first part of our paper is based on Guiso and Makarin (2020), in that we hypothesize that Russian speakers think of information conveyed in Russian as *trustworthy*. According to this theory,

 $^{^3}$ https://www.grid.news/story/global/2022/05/18/how-china-uses-global-media-to-spread-its-views-and-misinformation/

⁴https://theins.ru/politika/258094 See also Sablina (2023), who shows the role social media played in mobilizing the Russian-language community in Germany.

 $^{^5 \}mathrm{https://theins.ru/politika/}256770$

genetic, cultural, or religious affinity enhances trust (Guiso and Makarin 2020). In our paper, we denote language as – perhaps the most important – trait of cultural proximity, and try to separate it from other connections, such as for example personal ties, with a family member working in Russia and transmitting remittances. We thus hypothesise that Russian-speakers are particularly susceptible to information that is conveyed in the Russian language, while they are also more likely to seek information from Russian-language sources in the case of high-profile events.

The second part of our paper builds on Korovkin and Makarin (2023), who find that Ukrainian firms from districts with fewer ethnic Russians experienced a deeper decline in trade with Russia, after the Russian annexation of Crimea in 2014. Along a similar vein, we document that firms in regions with a higher share of Russian speakers are more likely to circumvent the sanctions and export war-relevant goods to Russia, after the imposition of trade sanctions following Russia's full-scale invasion of Ukraine.

The remainder of our paper is organized as follows. Section 2 introduces the background and context of our study, and section 3 presents our data and provides summary statistics. Section 4 documents how Russian speakers increased their consumption of Russian media after February 2022, while simultaneously their views of Russia improved and their views of the West deteriorated, as compared to the rest of the population in Kazakhstan. Section 5 uses our original survey to show how Russian media consumption is indeed related to being more likely to condone Russia's actions in the war and to support the circumvention of economic sanctions. Section 6 connects these findings to our trade data, and documents how Kazakh regions with a higher share of Russian speakers are significantly more likely to export war-related goods to Russia after February 2022, but not before. Section 7 concludes.

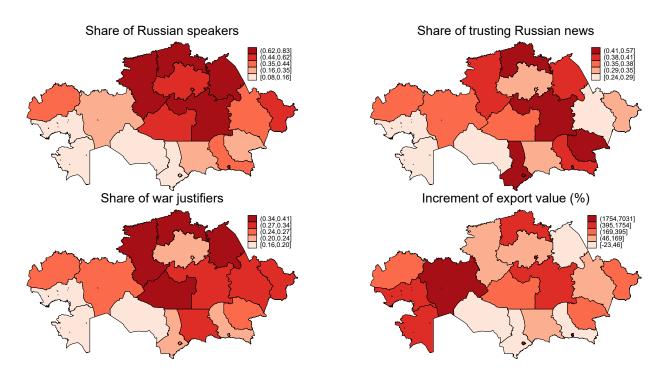
2 Background and Context

One of the successor states of the Golden Horde, the Kazakh Khanate was gradually conquered and absorbed by the Russian Empire from the late 18th to the mid-19th century. Following the Russian Revolution, the territory became part of the Soviet Union. After several territorial reorganizations, Kazakhstan's modern borders were established in 1936 with the formation of the Kazakh Soviet Socialist Republic. Kazakhstan declared its independence from the Soviet Union on December 16, 1991, and since then has been an independent state.

As a result of two centuries of Russian colonization, a large Russian minority continues to live in Kazakhstan. Although Kazakh is the official state language, Russian also has the status of an official language, and a large share of the population continues to speak Russian in their daily lives. Map 1 illustrates the distribution of Russian speakers across Kazakh regions, showing how Russian speakers are concentrated in the north of the country, as well as in the two main cities Astana and Almaty. As we

will show throughout the paper, this regional variation in language speaking capabilities can be linked to differences in media consumption (section 4), political opinions (section 5), and economic behaviour in the form of trading sanctioned products to Russia (section 6).

Figure 1: Regional heterogeneity by language, Russian media trust, war justification and sanctions circumvention



Importantly for our study, while the share of ethnic Russians in 2024 was 14.9% and that of ethnic Kazakhs 71%, 84.8% of the Kazakh population are able to read and write in Russian, and between 40% and 50% indicate Russian as the language they speak at home.⁶

Since the start of Russia's war in Ukraine in 2014, the Kazakh government has been careful in maintaining a low profile with respect to the conflict, avoiding too extensive coverage of the conflict in the official media (Lehtisaari et al. 2018) and employing "strategic silence" Dadabaev and Sonoda (2023), in order not to antagonize neither Russia nor the West, even though at times concerns and criticism about the war are voiced. As a result, almost all of the Kazakh- and Russian-language media published within Kazakhstan take either a neutral or a moderately critical stance towards Russia when covering the conflict. However, at the same time Russian-language media from Russia is widely available in

⁶https://stat.gov.kz/en/ See Table 1 in Section 3 for the share of Kazakh citizens that speak Russian at home.

 $^{^{7}}$ https://ecfr.eu/publication/steppe-change-how-russias-war-on-ukraine-is-reshaping-kazakhstan/

⁸This is also a result of Kazakh media being largely state-controlled. According to Freedom House, "the dominant media outlets in Kazakhstan are either in state hands or owned by government-friendly businessmen", https://freedomhouse.org/country/kazakhstan/freedom-world/2023.

Kazakhstan. Especially when searching for information on the internet, the probability that Russian speakers will end up on a site from Russia featuring pro-Russian content is therefore relatively high, while Kazakh speakers are more likely to find content that is more neutral or critical with respect to Russia's invasion of Ukraine.

While the Kazakhstani government has been careful to maintain a neutral stance towards the conflict in its official statements, economically, Kazakhstan has taken a pro-Russian stance. Exports from Kazakhstan to Russia have increased significantly since February 2022. However, as illustrated by Figure 2, this is *only* the case only for electronic goods, machines, and weaponry, i.e. products on which sanctions were imposed by Western nations after Russia's full-scale invasion of Ukraine in February 2022, while exports of other goods have remained remarkably stable.

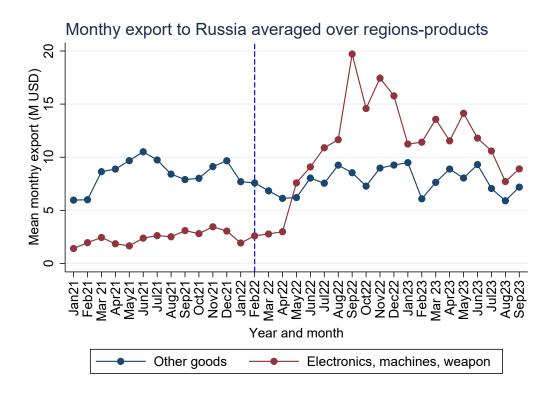


Figure 2: Export from Kazakhstan to Russia

In our paper, we investigate if Kazakhstan's role in circumventing the sanctions is related to Russia's continuing influence on the Russian-speaking community in Kazakhstan. In other words, are Russian speakers more likely to condone the war and approve of the circumvention of the sanctions after encountering Russian propaganda? And if there is such an effect, does it translate into increased exports of sanctioned products to Russia?

3 Data

To answer these questions, we use four distinct sources of data. First, six waves of a telephone survey conducted by the Central Asia Barometer of the population of Kazakhstan for the time period between 2021 and 2023 to test for a potential divergence in political views and media consumption between Russian speakers and other Kazakh citizens after the start of the full-scale invasion. Second, we justify this divergence by analyzing Yandex online search for conflict information and media content. Third, we conducted a large-scale online survey with list experiments in October 2023, permitting us to reveal attitudes toward the war and sanctions circumvention and study their discrepancy by media consumption. Fourth, transaction-level trade data of Kazakhstan within the Eurasian Economic Union (EAEU) for 2021 to 2023, permitting us to investigate the export of sanctioned goods from Kazakhstan to Russia before and after February 2022, for Kazakh regions with varying shares of Russian-speakers.

3.1 Central Asia Barometer

Since June 2017, the Central Asia Barometer (CAB) has been conducting regular and detailed public opinion surveys in the four Central Asian republics of Kazakhstan, Kyrgyzstan, Uzbekistan and Tajikistan. For our study, we use waves 9 to 14 of CAB data for Kazakhstan carried out in the Spring and Autumn of 2021 – 2023. In addition to detailed demographics, all six survey waves include a wealth of information on questions of public interest and individual attitudes, including attitudes towards Russia, the United States, China, and the Eurasian Economic Union. The waves starting from June 2022 also include several questions related to Russia's full-scale invasion of Ukraine, of which we use in particular the following two: (i) "In your view, who is mainly responsible for the situation in Ukraine?" (pre-coded answers: "Russia", "Ukraine", "The United States", "NATO, Europe/the EU"), (ii) "To what extent do you think Russia's special military operation in Ukraine is justified or unjustified?" (pre-coded answers: "Completely justified", "Somewhat justified", "Somewhat unjustified", "Completely unjustified", "Refused to answer", "Don't know").

To measure attitudes towards Russia, the United States, China, and Iran, the survey asked the following question: "Thinking about other countries, please tell me if you have a very favorable, somewhat favorable, somewhat unfavorable, or very unfavorable opinion of (Russia/the United States/China/Iran)." Attitudes towards the Eurasian Economic Union were gauged through the following question: "As you may know, since 2015, our country has been a member of the Eurasian Economic Union with Russia, Belarus, and Armenia. Do you strongly agree, somewhat agree, somewhat disagree, or strongly disagree

⁹https://www.ca-barometer.org/en

that joining the Eurasian Economic Union has benefited our country's national economy?"

All six survey waves also include an extensive block of questions related to: (i) the main source of news most often used to get information about what is going on outside of Kazakhstan (including relatives and friends, national and Russian traditional media, and the internet), (ii) the messaging apps most often used (WhatsApp, Telegram, etc.), (iii) the social media platform most often used (Facebook, Odnoklassniki, VKontakte, Instagram, Twitter, TikTok, etc.), (iv) the language that is spoken at home and the language of the interview, (v) and a full set of standard demographics, including ethnicity. Finally, the wave of September 2023 also includes the following question: "Would you say that you strongly trust, somewhat trust, somewhat distrust, or strongly distrust news and information from (Russia/the United States/China/Turkey/Iran/)?"

Section 4.1 provides descriptive statistics of the survey data, section 4.3 investigates how language proficiency and opinions about the war are related, section 4.4 looks at the mechanisms behind these findings, and section 4.5 looks at dynamics over time.

3.2 Yandex Search Data

We use Yandex search data to see how information-seeking behavior has evolved before and during the invasion of Ukraine.¹⁰ The data is taken from yandex.kz and available on a monthly-regional level. Figure 3 shows a substantial spike in searches of the phrase "war Ukraine" in February 2022, with a smaller spike around the Russian mobilization in September 2022 and a stabilisation after that.

Figures A5, A6 and A7 of Appendix A document that the interest in internet news also had a spike in February 2022. In addition, we see that while the search for information from pro-Kremlin news aggregators Yandex Dzen and Yandex News (Figures A5 and A6 of Appendix A) is significant and stable after February 2022, the increase in searches for Euronews, the most popular pro-European news channel in Kazakhstan, is only a fraction (Figure A7 of Appendix A).

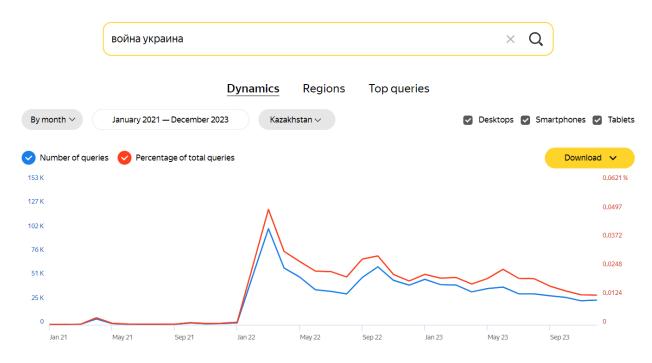
3.3 Survey List Experiment

The third dataset we use is the result of an online survey list experiment conducted in November 2023 in Kazakhstan with 5,025 respondents. The survey was designed to reveal unfalsified preferences of Kazakhstani people about their attitude to the war and readiness to help Russia circumvent sanctions. The survey was pre-registered¹¹ and carried out by NAC Analytica, a leading Kazakh sociological and public

¹⁰Yandex has a market share of roughly 20% in Kazakhstan, whereas Google carries out a vast majority of searches; however, Google search data is not accessible in a systematic way. The market share of Yandex has been oscillating between roughly 10 and 24% for the last three years https://gs.statcounter.com/search-engine-market-share/all/kazakhstan

¹¹https://aspredicted.org/YPM_LSH

Figure 3: Search for "War Ukraine" on Yandex



opinion research organization.¹² Participants were recruited through advertisements in social media (river sampling), and a weighting-scheme was applied to make the sample nationally representative.

After having answered questions about their socio-demographic background (see table ??) and their opinions on the lists (see section C.2), participants were asked three questions in random order, two of which are politically sensitive, and one that is not sensitive and acts as a placebo in order to confirm the list experiment worked as intended. The sensitive questions concerned geopolitics (In your opinion, is helping Russia avoid Western sanctions generally justified or not justified? and In your opinion, is Russia's Special Military Operation/ invasion of Ukraine generally justified or not justified?). The framing Special Military Operation and invasion of Ukraine was assigned at random, in order to balance invoked framing effects. Arguably, the way one describes Russia's invasion of Ukraine gives away their view on this war and thus invokes demand effects and social desirability bias. A neutral stance between the two mutually exclusive narratives of an illegitimate invasion or a 'Special Military Operation' is hard to find. We controlled for the effect of the framing in our regression analysis. While there are differences in the proportions, the dynamics of self-censorship develop analogously across treatments. The third question acted as a placebo, in order to control for design effects (In your opinion, is working more than 50 hours per week generally justified or not justified?). Answer options for these questions were Justified, Not justified, and Prefer not to answer. We coded Justified as 1, and Not justified and

¹²https://nacanalytica.com/en/

Prefer not to answer as 0.

Quality controls included attention checks (two questions on respondents age had to match), speeding filters (minimum of 200 seconds), allowing only two completes per IP address, and allowing phone numbers to participate only once (payment was carried out by phone number). Out of 28,201 participants, 5,025 completed the survey, passed quality checks, were unique respondents, and were compensated 700 Tenge (approx. 1.50 USD). A large majority of the participants that left the survey before finishing did so in the very first pages of the survey.

3.4 Trade data

Finally, we use the international trade data between Kazakhstan and Russia to study the economic consequences of the Kazakhstan population's exposure to Russian media. The data was provided by the Statistical Bureau of Kazakhstan (www.stat.gov.kz). It contains all transactions between EAEU countries and Kazakhstan for January 2021 — September 2023, including the region of Kazakhstan's firms, the trading product's classification code called TNVED, and the trading partner's country. We consider only export activity from Kazakhstan to Russia, reaching more than 810K transactions, and classify all the products into five categories: (i) electronics, machines and weapons, (ii) food, (iii) cloth, (iv) metals, and (v) others¹³. Most of the products from the first class are under Western sanctions, forbidding them from exporting to Russia, as they potentially can be used for the war, so we call them Sanctioned products even when we discuss the pre-war period. Finally, we aggregate the export data, calculate the export value in a million USD at the region(20 regions)-month(33 months)-product class(5 classes) level, and get 2899 observations as the dataset for analysis.

4 Language Proficiency, Media and Public opinion

4.1 Descriptive Statistics

Columns 3 and 4 of Table 1 provide descriptive statistics on language and ethnicity. The share of speaking Russian at home in our sample is 47.3% for 2021, 41.1% for 2022, and 45.3% for 2023. For all three years, the proportion of respondents who consider Russian their home language is more than twice the share of ethnic Russians. This distinction allows us to separate the effects of ethnicity from those of language use.

Regarding the perception of responsibility for the conflict in Ukraine, around a quarter of respondents primarily associate it with Russia, around 20% believe that Ukraine is mainly responsible, and less than

¹³The following 2-digits of TNVED product classification correspond to these products: electronics (85,88,90,91), machines (84,86, 87,89), weapon (93), food (01-24), cloth (41-43, 50-67), metals (72-83)

Table 1: Descriptive statistics for surveys

		Russia	an (%)	War re	sponsibilit	y (%)	SMO is	Favora	able op	inion of	(%)	EAEU is
Year	Obs.	Language	Ethnicity	Russia	Ukraine	West	justified $(\%)$	Russia	US	China	Iran	beneficial $(\%)$
2021	3,500	47.3	22.2					70.5	51.9	44.9	21.4	57.9
2022	3,020	41.1	17.9	27.5	20.8	10.8	26.3	50.9	49.4	51.5	27.0	59.5
2023	3,000	45.3	20.5	24.9	19.4	12.1	25.0	57.1	51.4	60.3	24.7	54.1

Note. The wave of May 2021 includes 2000 observations, and other waves include around 1500 observations each. All the percentages are calculated as shares in the waves of the corresponding year. In the question "SMO is justified" 1 means "Completely justified" or "Somewhat justified", and 0 means "Completely unjustified", "Somewhat unjustified" or "Refused", "Don't Know". War responsibility is denoted "West" if a respondent has chosen US, EU, or NATO. In the question "Favorable opinion of Russia/US/China/Iran" 1 means "Very favorable" or "Somewhat favorable", and 0 means "Very unfavorable", "Somewhat unfavorable" or "Refused", "Don't Know". In the question "EAEU is beneficial" 1 means "Strongly agree" or "Somewhat agree" that joining the Eurasian Economic Union has benefited Kazakhstan's national economy, and 0 means "Strongly disagree", "Somewhat disagree" or "Refused", "Don't Know".

12% of respondents think of Western countries, including the US, EU, and NATO. Moreover, three-quarters of the population do not believe that Russia's Special Military Operation (SMO) in Ukraine is justified.

More than 70% of respondents had a favorable opinion of Russia in 2021, but this share significantly dropped to about 51% in 2022 and moved back to 57% in 2023. On average, around half of the population held favorable opinions of the US and China, with almost no dynamics for the former and an improved attitude for the latter. Less than a quarter viewed Iran positively, with some improvement in dynamics. Most respondents agree that joining the Eurasian Economic Union has benefited Kazakhstan's national economy, and the attitudes are quite stable.

Table 2 illustrates various channels through which Russian propaganda can potentially affect respondents' beliefs. Notably, the Internet emerged as the primary source of news regarding events outside of Kazakhstan, with approximately two-thirds of the population utilizing it by 2023. Slightly more than 10% of the sample access international news primarily via local or national TV, radio, newspapers. Despite the reach of Russian TV, radio, newspapers as the main source of news being quite marginal (4-7%), around 61% of the population consumes Russian content for news and entertainment, and nearly 37% of respondents reported trust in Russian news.

In terms of social media and messengers, the data presented in Table 2 highlights WhatsApp and Instagram as having the highest consumption rates. The usage of Odnoklassniki or Vkontakte has substantially dropped during 2021-2023, while platforms like TikTok and Telegram experienced increased popularity. Lastly, there was a slight decrease in the proportion of households relying on remittances after the start of the war.

Figure 4 shows the dynamic trends in public opinion on the justification of the Special Military

Table 2: Descriptive statistics for channels

	2021	2022	2023
News Internet	59.4	64.6	67
News National or Local TV, radio, newspapers	10.6	12.2	10.1
News Russian TV, radio, newspapers	7.2	5	4.4
Trust to News from Russia			36.8
Use Russia media		61.9	60.5
Use VK or OK	16.2	11.6	9.2
Use Telegram	6	8.5	10.1
Use Facebook	8.7	8.2	7.7
Use Instagram	50.8	48.8	47.4
Use Tiktok	7.7	17.1	22.5
Use Whatsapp	88.3	87.5	86.7
Absence of remittance	88.3	91.9	92.9

Note. Table shows the percentage of media usage. The row "Trust to news from Russia" shows the share respondents from September 2023 who strongly or somewhat trust news or information from Russia. The row "Absence of remittance" shows the share of the households that do not rely on remittance.

Operation (SMO) and the attribution of responsibility for the situation in Ukraine, differentiated by language: Russian and non-Russian speakers. The period covers four survey waves: June 2022 (wave 11), November 2022 (wave 12), April 2023 (wave 13), and September 2023 (wave 14). Russian speakers are more likely to justify the Special Military Operation, and associate the responsibility for the situation in Ukraine with the US, EU, or NATO countries, in comparison with respondents speaking other languages.

As shown in the left panel of Figure 4, the share of Russian speakers justifying the SMO declines from about 50% in June 2022 to around 35%-40% in consecutive waves. Importantly, non-Russian speakers consistently show lower justification levels, around 15% on average. Among non-Russian speakers, approximately 34% of respondents attribute responsibility for the conflict to Russia and 6% – to Western countries. Among Russian speaking, these figures are around 17% and 19%, respectively.

Figure 5 presents the dynamic trends in public opinion regarding Russian, the US, and China among Russian and non-Russian language speakers (Figure A1 shows the graphs for Iran, Turkey, and EAEU). The Russian-speaking respondents generally hold more favorable opinions of Russia and China and less favorable views of the US.

Favorable opinions of Russia declined over time among both Russian and non-Russian speakers. However, the decrease was more pronounced among respondents who did not speak Russian at home.

Figure 4: SMO justification and Responsibility for the situation in Ukraine in dynamics

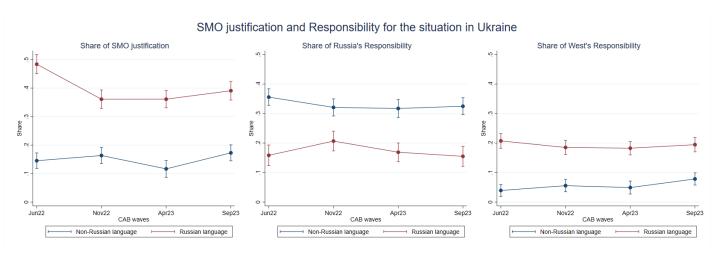
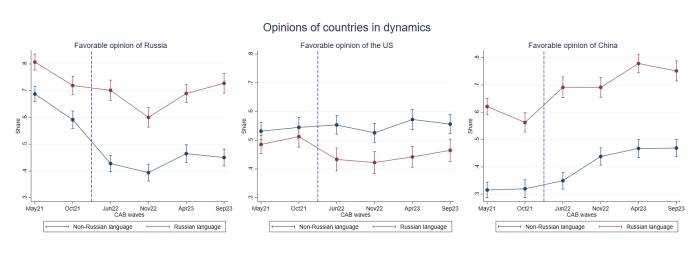


Figure 5: Favorable opinions of different countries



For instance, in May 2021, the gap between the shares of favorable opinions for Russian and non-Russian speakers was 12% (with 81% of Russian speakers holding a favorable opinion of Russia compared to 69% among non-Russian speakers). By September 2023, this gap had widened significantly to 28% (with 73% of Russian speakers expressing a favorable view of Russia compared to only 45% among non-Russian speakers). This widening gap suggests a diverging trend in attitudes towards Russia based on linguistic identity over the surveyed period.

Regarding attitudes towards the United States, non-Russian speakers are generally more inclined to hold a favorable opinion of the US compared to Russian speakers. Specifically, non-Russian speakers exhibit a favorable view of the US at a rate of 55% on average during 2021-2023, whereas Russian speakers express slightly lower favorability, standing at 46%. However, there's a notable difference between Russian and non-Russian speakers in their post-war views. The share of favorable opinion of the US for Russian speakers dropped since the start of the war but has been recovering over time. On the other hand, favorability towards the US among non-Russian speakers has slightly increased since the war started.

Between May 2021 and September 2023, favorable views of China showed a gradual increase among both linguistic groups. Russian speakers consistently maintained a higher level of optimism about China compared to respondents with a different language identity. Throughout the entire period, the average share of favorable opinions of China among Russian speakers was 68%, whereas for non-Russian speakers it was notably lower at 39%. Despite this substantial gap in attitudes towards China based on linguistic identity, this gap has been persistent over time and has not been affected by the war.

4.2 Yandex online search

Tables 5 show that Russian-speaking respondents consume internet news more frequently. However, the CAB surveys do not provide information about the specific internet sites they visit. It is unclear whether the increased quantity of news consumption for Russian speakers is accompanied by a difference in news sources. We use online search statistics from Yandex to fill this gap. Using the CAB data, we calculate the share of Russian-speaking respondents at the regional level SL_r and match this data with the regional search statistics. To see whether regions with a higher share of Russian-speaking are different from those with fewer Russian speakers in terms of the search for the war- and news-specific keywords we consider the following event-study design:

$$y_{rt} = \sum_{t} \beta_t \cdot SL_r \cdot \mu_t + \lambda_r + \mu_t + \epsilon_{lt}. \tag{1}$$

In equation 1, our dependent variable $y_{rt} = \frac{\text{Num. of searches in region } r \text{ in month } t}{\text{regional population in } r} \cdot 1000$, i.e. it is the number of the searcher of a keyword in a region per 1000 residents of the region. SL_r is the share of Russian speaking respondents in the region r (using CAB waves). Finally, λ_r is the region fixed effect and μ_t is year-month fixed effect. Figure 6 shows the results for keyword "war Ukraine". Regions with more Russian speakers experience an increase in searches compared to regions with fewer Russian speakers. Moreover, in March 2022, the increase of the share of Russian speakers from 8% to 83% in a region (i.e. the lowest and the largest shares by Kazakhstan regions) increases the search of war-related keywords by 12.3 times per 1000 of people.

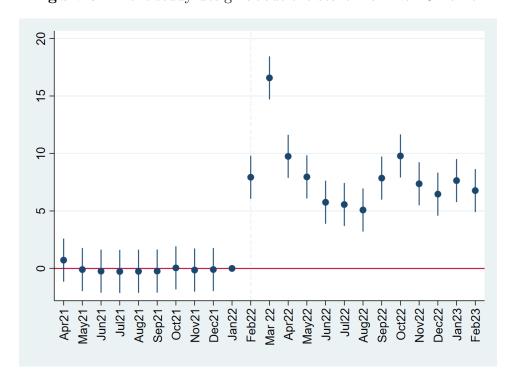


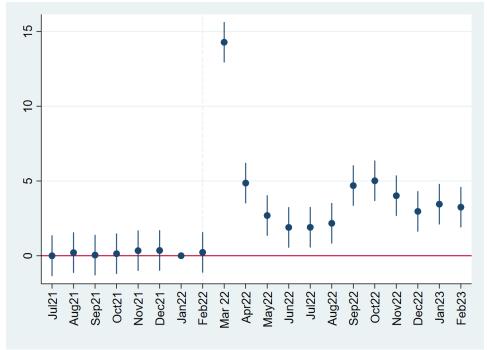
Figure 6: Event study design about the search for "war Ukraine"

The result for the keyword "war Ukraine" does not reflect any attitude to this war; it just indicates the interest. In what follows, we apply 1 for searches Yandex Dzen and Yandex News – the largest pro-Kremlin news aggregator since 2020, which finally was acquired by Russian state-owned social media VK ¹⁴ in 2022. Figure 7 shows that the effect of Russian language penetration on the search of these two sources in March 2022 is comparable to a general search "war Ukraine" and the dynamic patterns of search are also comparable, suggesting that the Yandex Dzen and Yandex News could be the most important news sources in Russian speaking regions.

Figure A8 shows the results for the most popular pro-Western news source in Kazakhstan – "Eu-

¹⁴https://www.forbes.ru/tekhnologii/476829-vk-i-andeks-ob-avili-o-zakrytii-sdelki-po-dzenu-i-novostam

Figure 7: Event study design about the search for "Yandex News" or "Yandex Dzen"



ronews". While the pattern dynamic patterns of the search are also comparable to the previous two, the magnitudes are 10 times smaller compared to the "Yandex News" or "Yandex Dzen" search.

4.3 Language Proficiency and Justification of the War in Ukraine

As the next step, we study how linguistic proficiency in speaking Russian affects attitudes toward the war in Ukraine. We use CAB survey waves conducted since 2022, and consider the following TWFE linear equation:

$$y_{irt} = \alpha L_{irt} + \mathbf{X_{irt}}\beta + \kappa_r + \lambda_t + \epsilon_{irt}. \tag{2}$$

Here, i denotes respondent from region r and wave t.¹⁵ The binary variable L_{ilt} is 1 if a respondent speaks Russian most often at home, and otherwise 0. The vector \mathbf{X}_{irt} includes the set of control variables: gender, five age categories, university education (or higher), five categories of household size, urban/rural settlement, and ethnicity as a set of dummy variables (including Kazakh and Russian ethnicity), the interviewer assessment of the respondent's survey comprehension (four levels) and comfort (four levels). Noteworthy, the control for ethnicity enables us to disentangle the language effect from the ethnicity. The variables κ_r and λ_t are the region and survey wave fixed effects, respectively. As dependent variables y_{ir} , we consider answers to the following three questions on the opinion of the war: (i) the extent to which

¹⁵Regions are three major cities, Astana, Almaty, and Shymkent, and 17 other sub-national regions.

SMO is justified (binary and scaled), (ii) the respondent's statement that Russia is primarily responsible for the war, and (iii) the respondent's statement that western countries are mostly responsible for the war. Our main focus is coefficient α , which shows the association between likely exogenous language habits and war attitudes, clean of socio-demographic and ethnic components.

Table 3 shows the results for binary measure "SMO is justified" for the whole sample (column 1) and different sub-samples we have in CAB data: firms heads (column 2), younger (below 40) and elder (above 40) people (columns 3-4), respondents who pay a lot of attention to the information about the war (column 5), and ethnically non-Russians (column 6). The Russian-speaking respondents demonstrate high justification for the war by 0.11 pp for the total sample (Column 1), which is equivalent to 42.8% when referring to the sample average. For all the above-mentioned sub-samples, the results are similar in the direction of being stronger for older generations (0.16 pp) and weaker for younger (0.077 pp). Table B1 of Appendix shows the estimates for the scale variable "SMO is justified", and the results are the same, except that the coefficient for firm heads is insignificant.

Table 3: Russian language proficiency and war justification

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES			SMO is just	tified (binary)	
Russian language	0.11*** (0.015)	0.090** (0.037)	0.16*** (0.026)	0.077*** (0.019)	0.13*** (0.019)	0.10*** (0.015)
Observations	6,020	955	2,366	3,654	3,889	4,864
R-squared	0.140	0.154	0.223	0.082	0.178	0.078
Waves	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022
Sample	All	Firm head	Above 40	Below 40	Informed	No Russians
Region FE	Yes	Yes	Yes	Yes	Yes	Yes

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. The table shows the regression results (2) for a binary dependent variable, "SMO is justified". Robust standard errors are in parentheses.

As the next step, we consider a set of binary variables assigning responsibility for the war to three possible actors – Russia, Ukraine, or the West as the dependent variable y_{ilt} in equation (2). Table 4 shows the results with a breakdown by dependent variables and sub-groups of people. Column 1 of Panel A shows that overall, Russian-speaking respondents are less likely to blame Russia as the mainly responsible side of the war by 0.057 pp, which is equivalent to 21.7% when referring to the sample average. The effect is even stronger for the respondents who pay attention to the information about the war (Column 5 Panel A). Nevertheless, for firm heads and younger respondents, the association is

Table 4: Responsibility for the situation in Ukraine

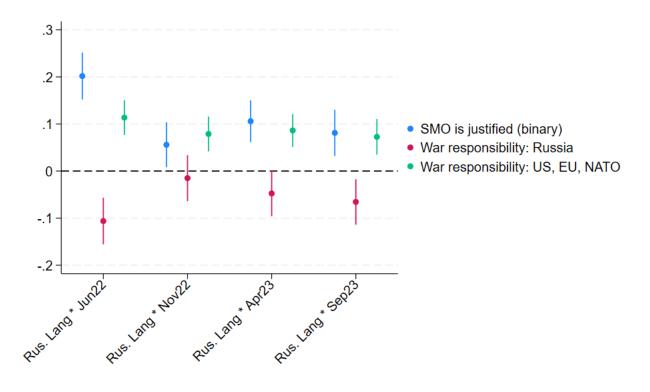
	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	· /	` /	el A. War res	sponsibility: 1	Russia	,
Russian language	-0.057***	-0.025	-0.094***	-0.034	-0.070***	-0.058***
	(0.017)	(0.042)	(0.028)	(0.021)	(0.022)	(0.017)
		Pane	el B. War resp	ponsibility: U	Jkraine	
Russian language	0.013	-0.028	0.028	0.0058	0.0012	0.013
	(0.014)	(0.033)	(0.024)	(0.018)	(0.018)	(0.014)
		Panel C.	War respons	sibility: US, I	EU, NATO	
D : 1	0.005***	0.050***	0.10***	0.000***	0.10444	0.000***
Russian language	0.087***	0.079***	0.13***	0.063***	0.10***	0.083***
	(0.012)	(0.031)	(0.024)	(0.013)	(0.016)	(0.012)
Observations	6,020	955	2,366	3,654	3,889	4,864
Waves	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022
Sample	All	Firm head	Above 40	Below 40	Informed	No Russians
Region FE	Yes	Yes	Yes	Yes	Yes	Yes

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. The table shows the results of regression (2) for binary dependent variables emphasizing the most responsible side for the war: Russia/Ukraine/Western countries. Robust standard errors are in parentheses.

insignificant (Columns 2, 4 of Panel A). Panel B shows an insignificant language gap in blaming Ukraine as the mainly responsible side, suggesting that neither of the sub-groups of respondents among Russian-speaking blame Ukraine more than non-Russian-speaking. Finally, Column 1 of Panel C shows overall, the Russian-speaking respondents blame the Western countries by 0.087 pp more than non-Russian-speaking, which is equivalent to 76% when referring to the sample average. Moreover, this effect is also strong for all other considered sub-groups of respondents, including firm heads (0.079 pp in Column 2 of Panel C) and young people (0.063 pp in Column 4 of Panel C).

Figure 8 shows the coefficient α from (2) in dynamics suggesting separate coefficient L_{irt} for each wave and including all the respondents. War justification has some dynamics, such as a stronger association between language and justification in the first wave and stabilization after that. A similar pattern is for another variable- Russia and the West's main responsibility for the war. All in all, we can conclude that Russian-speaking people justify the war more; they are less likely to blame Russia and more likely to blame Western countries for the war compared to non-Russian speakers, outlining the importance of language use and not only ethnicity in shaping political opinions.

Figure 8: The Language effect on SMO justification and responsibility for the situation in Ukraine in dynamics



4.4 Mechanisms on how does Language Proficiency affect Opinions.

In this section, we study a set of potential mechanisms on how Russian language use can result in justification of the war in Ukraine, a result that we found even for the ethnically non-Russian population.

We start by considering information channels that have traditionally played an important role in Central Asia countries - Russian traditional media (TV and Radio) and labor migration. We use them as dependent variables in our equation (2).

 Table 5: Channels for Russian propaganda

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES		Panel A. Ne	ws from Russ	sian TV, radi	io, newspaper	S
Russian language	0.022***	0.0074	0.037***	0.010*	0.029***	0.016***
	(0.0063)	(0.012)	(0.014)	(0.0060)	(0.0089)	(0.0061)
		Pa	anel B. Abser	nce of remitta	ance	
Russian language	0.0082	0.024	0.0033	0.010	0.0032	0.013
	(0.010)	(0.025)	(0.016)	(0.014)	(0.012)	(0.011)
		Pa	nel C. News	from the Inte	ernet	
Duggian languaga	0.038**	-0.017	0.0063	0.052***	0.046**	0.038**
Russian language						
	(0.016)	(0.036)	(0.030)	(0.020)	(0.019)	(0.017)
Observations	6.020	055	2 266	2 654	2 000	1 961
Observations	6,020	955	2,366	3,654	3,889	4,864
Waves	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022
Sample	All	Firm head	Above 40	Below 40	Informed	No Russians
Region FE	Yes	Yes	Yes	Yes	Yes	Yes

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. The table shows the results for binary dependent variables regarding channels of potential Russian propaganda. Robust standard errors in parentheses.

Panel A of Table 5 shows that Russian-speaking respondents are more likely than non-Russian speakers to consume Russian traditional media (TV news, radio, and newspapers). This effect is specifically stronger for the older population and those who pay attention to the information about the war. There is no evidence that remittance may play any role as the channel (Panel B).

As the second step, we examine the news on the internet. Panel C of Table 5 shows that Russian-speaking respondents consume internet news by 0.038 pp more than non-Russian-speaking respondents, and this effect is especially prominent for the younger population. Panel A and B results suggest that

Russian propaganda targets older generations via traditional media and younger generations via the Internet. Nevertheless, CAB question about international news covers only the internet per se, while it does not specify the exact source, such as websites or social media. VK and Odnoklassniki (OK) are social media owned by the Russian government. The former is more popular among younger people, while the latter is used mainly among older people. Among the above-named channels, VK, OK, and Telegram have been intensely used by Russian government propaganda, especially since February 2022. Telegram, in particular, has become a platform where many pro-Russian bloggers with often large audiences are providing information about the war in Ukraine from a Russian perspective. ¹⁶ Facebook and Instagram, on the other hand, are blocked in Russia. TikTok hosts entertainment content, and WhatsApp is mainly considered a messaging app, so these platforms are less relevant as channels of Russian propaganda. To understand the role of social media, we use the question of the most frequently used social media interacted with internet news consumption. We use them as dependent variables in our equation (2). Table 6 shows the results.

Table 6: Social media as internet news

	(1)	(2)	(3)	(4)	(5)	(6)
	Depend	lent variable:	Internet new	s and the fol	lowing Social	l Media:
VARIABLES	VK or OK	Telegram	Instagram	TikTok	Facebook	WhatsApp
Russian language	0.055*** (0.0063)	0.028*** (0.0068)	-0.026** (0.012)	-0.027*** (0.0085)	-0.040*** (0.0058)	-0.045*** (0.013)
Observations	6,020	6,020	6,020	6,020	6,020	6,020
R-squared	0.014	0.003	0.001	0.002	0.007	0.002
Waves	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022
Sample	All	All	All	All	All	All

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. The table shows the results for binary dependent variables regarding channels of potential Russian propaganda. Robust standard errors in parentheses.

Columns 1-2 of Table 6 show that Russian-speaking respondents are significantly more likely to use internet news with VK-OK or Telegram than non-Russian-speaking respondents. However, the Russian-speaking respondents were less likely to use internet news with Instagram, TikTok, Facebook or WhatsApp.

or

 $^{^{16}\}mathrm{See}$ for example https://www.dw.com/en/russian-war-bloggers-pawns-in-a-political-game/a-64284496, https://www.themoscowtimes.com/2022/09/14/explainer-who-are-russias-pro-war-bloggers-and-why-are-they-important-a78793

4.5 Dynamics of Opinion Change

Apart from being influenced through social media and the internet, another potential channel that could explain our results from Tables 3 and 4 is that Russian-speaking populations in Kazakhstan have always been more pro-Russia than non-Russian speaking populations, as they have been sharing long-term historical and cultural ties and views with the Russian population in Russia. If this is the case, we would expect that this group always held a more favorable view of Russia and a less favorable view of the US than the group of non-Russian speakers.

To examine this argument and the dynamic evolution of opinions on Russia, the US, and China, we use the two survey waves from 2021 in combination with the survey waves after 2022 and estimate the following DID specification from Korovkin and Makarin (2023):

$$y_{irt} = \alpha L_{irt} + \gamma Post_t + \delta L_{irt} \cdot Post_t + \mathbf{X_{irt}} \beta + \kappa_r + \lambda_t + \epsilon_{irt}.$$
(3)

Here i denotes the respondent from the region r and survey wave t. The binary variable L_{irt} equals one for Russian-speaking, and the binary variable $Post_t$ equal one for the period of war in Ukraine. The vector \mathbf{X}_{irt} includes the same set of control variables as in (2), and μ_t are the survey wave fixed effects. The design of the regression is similar to a standard DID design, though there is no pure (unaffected) control group. That is, the coefficient α shows the gap in y_{irt} between the Russian and non-Russian speaking population before the war, and the coefficient δ shows the change in this gap after the start of the war. The coefficient δ can be interpreted as the differential treatment effect. We consider the opinions of Russia, the US, and China (binary and scaled from 1 to 4) as our dependent variables.

Table 7: Opinion of Russia, US and China in dynamics

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
VARIABLES	Favorable	e opinion of I	Russia (binary)	Favorable	opinion of th	e US (binary)	Favorabl	e opinion of	China (binary)
				0.000		o o o o dividudi	o a Salesterie	o a oalahala	o a calculada
Russian language (α)	-0.00010	0.033	-0.017	0.092***	0.087***	0.093***	0.17***	0.19***	0.16***
	(0.018)	(0.030)	(0.023)	(0.018)	(0.030)	(0.023)	(0.019)	(0.030)	(0.024)
Post war (γ)	-0.13***	-0.14***	-0.13***	0.029	0.042	0.019	0.16***	0.12***	0.17***
***	(0.020)	(0.033)	(0.025)	(0.020)	(0.033)	(0.025)	(0.019)	(0.032)	(0.025)
Russian language * Post war (δ)	0.13***	0.16***	0.098***	-0.078***	-0.11***	-0.060**	0.015	0.031	-0.0016
, ,	(0.019)	(0.031)	(0.025)	(0.020)	(0.032)	(0.026)	(0.020)	(0.031)	(0.026)
Observations	9,520	3,732	5,788	9,520	3,732	5,788	9,520	3,732	5,788
R-squared	0.111	0.126	0.108	0.137	0.094	0.088	0.141	0.169	0.127
Waves	All	All	All	All	All	All	All	All	All
Sample	All	Above 40	Below 40	All	Above 40	Below 40	All	Above 40	Below 40
Region FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Wave FE	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Table shows the results of regression (3) for binary dependent variables: "Favorable Opinion of Russia" (columns 1-3), "Favorable Opinion of the US" (columns 4-6), "Favorable Opinion of China" (columns 7-9). Robust standard errors are in parentheses.

Table 7 shows the results. Before the full-scale invasion, the Russian-speaking respondents had the same opinion of Russia ($\alpha = 0$ in Column 1) and more favorable opinion of the US ($\alpha > 0$ in Column 4) than non-Russian-speaking respondents. These results change substantially after February 2022 (coefficient δ).

After February 2022, Russian-speaking respondents had a significantly better opinion of Russia than non-Russian-speaking respondents ($\delta > 0$), while non-Russian-speaking respondents opinion decreased substantially compared to 2021 ($\gamma < 0$) (Column 1). These results apply to younger and older populations (Columns 2, 3). Moreover, Column 4 shows that the positive attitude of Russian-speaking respondents towards the US decreased substantially stronger than for non-Russian-speaking respondents ($\delta < 0$). In contrast, the attitude toward the US of non-Russian-speaking respondents remained stable ($\gamma = 0$). These results apply to younger and older populations (Columns 5, 6). We consider China to be a neutral country (de jure) in the conflict. The Russian-speaking respondents had a more favorable opinion of China before the invasion, and there was no change in this difference after the invasion. Figure 9 shows that the parallel trend assumption holds for attitudes on Russia and the US so that the results of DID estimates from Table 7 can have the causal interpretation.

These results suggest that the argument that the Russian-speaking population in Kazakhstan is more supportive of the current war because they have always been closer to Russia and share historical and cultural ties and views with the Russian population does not hold.

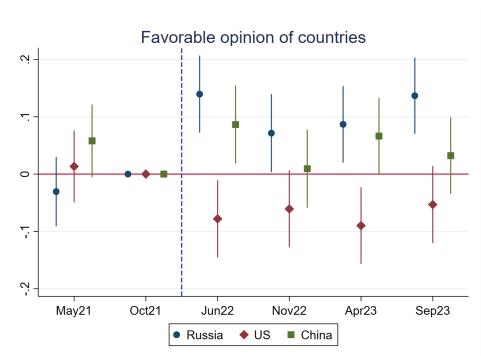


Figure 9: Event study design about favorable opinion of countries

5 Media consumption and sanction evasion opinion

In this section, we will show how public opinion is connected to the consumption of media sources stemming from Russia. To his end, we use original survey experiment data collected in November 2023 in Kazakhstan. The survey consisted of demographic question, detailed question about media consumption, and included a list experiment (see section C.2). We asked participants about their attitudes to the Russian invasion of Ukraine, as well as their opinion on whether avoiding Western sanctions and helping Russia can be 'justified'. Because these topics are politically sensitive and invite preference falsification, we concluded the survey with a list experiment in which participants could indicate their opinion without having their privacy compromised. The following section 5.1 will report detailed results and provide a discussion.

Table C1 presents summary statistics for all variables. The sample was 48.7% male and 42.7 years old (SD=16.1), on average. Participants were asked on a 1 - 5 scale about their financial situation (M=2.85, SD=1.14), with the average corresponding to the answer option We have enough money for food and clothes, but buying durable goods, such as a TV or refrigerator, is difficult. Participants reported having received education on a scale ranging from 1 - 6 (M=4.55, SD=1.75), their residency (where 22% (SD=0.41) reported living in either of the two large cities Astana or Almaty), and being ethnically Russian (M=0.25, SD=0.43). 30.1% (SD=0.46) of participants reported consuming news sources from Russia. Weights for age and sex were applied to make the sample nationally representative.

5.1 Results

Table C2 shows the results from the regression models of the direct questions and Table 9 shows the results from the regression models of the list experiment. Each column represents a different item of interest, as indicated by the name of the column. Controls for language capabilities, ethnicity, regions, age, education, and income are included in all models. The exact experimental setup and framing can be found in Table C3.

In our regression models using the direct questions, we find that 26.1% of respondents think avoiding sanctions can be justified, whereas 18.6% of respondents indicate thinking that the Russian invasion of Ukraine was justified. For those consuming media sources from Russia¹⁷, these numbers increase substantially (13.5%, p < 0.001) with respect to avoiding sanctions, and less pronounced (8.7%, p < 0.001) with respect to support for the war. In our regression models using the list experiment, we find

¹⁷As opposed to media sources in Russian

Table 8: Regression Models Direct Question

	(1)	(2)	(3)
VARIABLES	Sanction evasion	SMO/invasion Ukraine	Working $50h/w$
Russian Media consumption	0.14***	0.086***	0.0012
	(0.016)	(0.015)	(0.015)
Constant	0.26***	0.19**	0.15**
	(0.076)	(0.073)	(0.070)
Observations	5,025	5,025	5,025
R-squared	0.082	0.089	0.097
Region FE	Yes	Yes	Yes
Robust SE	Yes	Yes	Yes
Controls	Yes	Yes	Yes

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Linear regression models, where the dependent variable is responding "justified" to the question In your opinion, is [item] generally justified or not justified?. Each row in the table represents a different item. Exact wording can be found in Section 3.3. We control for age, age squared, education, ability to speak Russian, Russian ethnicity, privacy perceptions, financial situation, and regions. All variables were used in their categorical form for the estimation. Robust standard errors in parentheses.

Table 9: Regression Models List Experiment

	(1)	(2)	(3)
VARIABLES	Sanction evasion	SMO/invasion Ukraine	Working $50h/w$
Treatment	0.30***	0.22***	0.22***
	(0.039)	(0.038)	(0.039)
Treatment * Russian Media consumption	0.14**	0.076	0.025
	(0.072)	(0.068)	(0.070)
Observations	5,025	5,025	5,025
R-squared	0.092	0.059	0.089
Region FE	Yes	Yes	Yes
Robust SE	Yes	Yes	Yes
Controls	Yes	Yes	Yes

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Linear regression models, where the dependent variable is the number of items with which survey participants agreed. The coefficient Treatment captures whether participants were in a treated list, i.e., whether the item of interest was in their list or not. Correspondingly, the value of the coefficient reports the share of participants across our sample that agreed with the item of interest. Each row in the table represents a different item. Exact wording can be found in C3. We control for age, age squared, education, ability to speak Russian, Russian ethnicity, financial situation, and regions. Robust standard errors in parentheses.

that 30.3% of respondents think avoiding sanctions can be justified, whereas 22.4% of respondents agree that the Russian invasion of Ukraine was justified. For those consuming media sources from Russia, these numbers increase substantially (14.1%, p = 0.049) with respect to avoiding sanctions, and less pronounced (7.6%, p = 0.265) with respect to support for the war.

As indicated by the difference between the coefficients of the first row in Table C2 and the first row in Table 9, there is some preference falsification, which is to be expected when asking sensitive questions in an authoritarian context. Notably, both methods yield very similar results, in that the magnitude of of the coefficients of Russian Media Consumption is almost the same in both estimations. By using the list experiment we can rule out that preference falsification has substantially biased our results.

These results link our previous findings to those presented in the next section. Above we established that Russian media consumption is found to be significantly higher among those who are able to speak the language and, crucially, independent of their ethnicity. Here we find evidence that the consumption of news from Russia has a strong positive effect on pro-Russian attitudes. In the next section, we provide some evidence that it is not only attitudes that are influenced, but also economic behavior in the form of sanctions evasion.

6 Russian propaganda and help in sanctions circumvention

In this section, we study how exposure to Russian propaganda affects the export activity of sanctioned products to Russia from Kazakhstan. Our aggregate export data from Kazakhstan to Russia includes 2899 observations at the region(20 regions)-month(33 months)-product class (5 classes) level.

Figure 2 shows that before the war, the Kazakhstan export to Russia of sanctioned products was relatively stable and small - around 2.4M USD per month-region (or 47M USD monthly for all regions), while the export of other products was 3.5 times larger - 8.4 M USD per month-region-product class¹⁸ (or 645M USD monthly for all region and products). After the invasion, the export of sanctioned products became 11M USD per month-region (with a spike in Autumn 2022 reaching 20M USD per month-region) and accounting for 211M USD monthly. The export of non-sanctioned products stayed around 7.8 M USD per month-region-product class (568M USD monthly for all regions and products). In Section 6, we show the role of Russian propaganda in this sanctions circumvention process.

We start by estimating the average effect of war and sanctions on the export activity of sanctioned products to Russia. For this, we use the difference-in-differences, where the treatment group includes sanctioned products (e.g., electronics, machines, and weapons), the control group includes all non-

¹⁸Cloth 0.4M USD, Food 2.6M USD, Metals 12.8M USD, Other products 17M USD per month-region

sanctioned products, and February 2022 is the treatment date. We consider the following linear equation:

$$Value_{rtp} = \beta S_p Post_t + [\delta Capital_r S_p Post_t] + \kappa_r + \lambda_t + \mu_p + \varepsilon_{rtp}. \tag{4}$$

Here r denotes region, t – time (year-month) and p – product class. The outcome variable $Value_{rtp}$ is the export value (in million USD). The binary variables S_p denote the sanctioned products (electronics, machines, weapons), $Post_t$ – the period from February 2022 onwards, $Capital_r$ – Astana city (current capital) or Almaty city (former capital). Variables κ_r , λ_t , and μ_p are regional, time, and product class fixed effects, respectively. In specification (4)) without bracket term, coefficient β captures the average treatment effect of war and sanctions on the region-month export value of sanctioned products to Russia. Column 1 of Table 10 shows that due to the war and sanctions, the export transactions of sanctioned products increased by 9.7M USD per month-region, which well corresponds to Figure 2 and may be an indication of the re-export activity of firms in Kazakhstan.

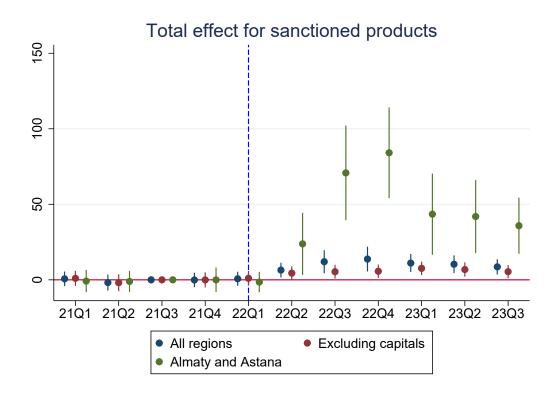
Due to the substantial concentration of business in the two largest cities – Astana and Almaty – we also show how the export activity of sanctioned products in these cities changed after the war and compare this effect with the effect for other regions. In specification (4)) with bracket term, coefficient δ captures this effect for Astana and Almaty, while coefficient β – for other cities. Column 2 of Table 10 shows that the month-region export of sanctioned products from Astana and Almaty increased by 46.5M USD, while it is substantially smaller for other regions – 4.9M USD. Figure 10 shows the Event Study design coefficients β_{τ} and δ_{τ} :

$$Value_{rtp} = \sum_{\tau=21Q1}^{23Q3} \beta_{\tau} S_p I(t=\tau) + \left[\sum_{\tau=21Q1}^{23Q3} \delta_{\tau} S_p I(t=\tau) \right] + \kappa_r + \lambda_t + \mu_p + \varepsilon_{rtp},$$

justifying the assumption of parallel trends for DID specifications (4). Due to substantial differences in the overall effects for capital cities and the rest of the regions, in the forthcoming analysis of the effect of exposure to pro-Kremlin information, we either exclude Astana and Almaty or show a standalone coefficient for them.

The analysis above showed a spike in the export value of sanctioned products to Russia. But does this spike depend on the extent of exposure to pro-Kremlin information about the war? To answer this

Figure 10: The dynamics of the gap in trade between sanctioned and other products



question, we consider the following triple DID specification:

$$Value_{rtp} = \alpha S_p Treat_r + \beta S_p Post_t + \gamma S_p Post_t Treat_r + [\delta Capital_r Post_t]$$

$$+ \kappa_r + \lambda_t + \mu_p + \varepsilon_{rtp}.$$

$$(5)$$

Variable $Treat_r$ uses CAB surveys and captures three different regional measures of treatment exposure to the pro-Kremlin information about the war as the share of (i) Russian-speaking respondents, (ii) respondents justifying the war, (iii) respondents trusting Russian news. Other variables are the same as in (4). When considering all regions, we include a term in brackets in (5); otherwise, we exclude it. When we exclude Astana and Almaty, coefficient α measures the prewar differences in the export activity of (not yet) sanctioned products depending on the treatment exposure. Coefficient β measures the effect of war and sanctions on the export activity of sanctioned products for a hypothetical region with zero treatment exposure, while the coefficient γ captures the additional contribution of treatment exposure to this effect. When we include Astana and Almaty, the interpretation of the coefficients β and γ preserves, while δ measures the effect of the help in sanctions circumvention for these cities.

Table 10 presents the estimation results for model (5). Columns 4, 7, and 10 exclude Astana and Almaty, while Columns 3, 6, and 9 include them. The coefficient β is smaller in all these models

compared to the baseline model of Column 2 and, in most cases, is either negative (Columns 9, 10) or insignificant (Columns 3, 6, 7). This suggests that in a hypothetical region with zero treatment exposure, the effect of the help of sanctions circumvention is either negative or zero. On the contrary, coefficient γ is positive and significant in all the considered models, suggesting that exposure to pro-Kremlin news stimulates firms in these regions to export more sanctioned products. Among the three measures of treatment exposure, the *Share of speaking Russian* demonstrates the weakest effect, while the *Share of trusting Russian news* – the strongest, being slightly above the *Share of justifying the war*. This evidence suggests that the main driver of the help in sanctions circumvention is Russian media, not cultural proximity. Figure 11 combines the information from coefficients β and γ and shows how help in sanctions circumvention depends on the treatment exposure. At the mean treatment exposure ¹⁹, the export of sanctioned products to Russia increases by 5.6M USD per region-month compared to the prewar time in non-capital regions. Figure 12A shows the coefficients from the Event Study design γ_{τ}

$$Value_{rtp} = \alpha S_p Treat_r + \beta S_p Post_t + \sum_{\tau=21Q1}^{23Q3} \gamma_{\tau} S_p I(t=\tau) Treat_r + \kappa_r + \lambda_t + \mu_p + \varepsilon_{rtp},$$

excluding the capital cities. It justifies the assumption of parallel trends for triple DID specifications (5).

Finally, we restrict our attention to sanctioned products only and implement the DID specification similar to the one in Korovkin and Makarin (2023):

$$Value_{rt} = \gamma Post_t Treat_r + \kappa_r + \lambda_t + \varepsilon_{rt}, \tag{6}$$

with non-binary treatment intensities. 20 In this specification, coefficient γ identifies the differential effect of war and sanctions between regions with high and low degrees of treatment exposure. For the same reasons as before, we exclude Astana and Almaty from the sample. Columns 5, 8, and 11 of Table 10 show the results for the regional share of Russian speaking, justifying the war, and trusting Russian news, respectively. Similar to the previous findings, sanctions had a stronger effect on exports of sanctioned products to Russia for regions with higher treatment exposure. However, the magnitude depends on the exposure measure. An increase in the share of Russian-speaking respondents from the first quartile (.204) to the third quartile (.605) increases the additional export by 3.14M USD per month-region.

¹⁹Mean values: 0.42 for the Russian language, 0.27 for war justification, and 0.37 for trust in Russian media

²⁰One can think of regions with low and high treatment exposure as control and treatment groups, respectively, in a binary treatment setting.

Similarly, increasing the share of justifying the war and trusting the Russian news for one interquartile range (0.111 and 0.071, respectively) increases the additional export of sanctioned products by 2.4M USD and 0.86M USD per month-region. This finding also justifies the previous finding that exposure to pro-Kremlin information affects the firms' incentives to help Russia circumvent sanctions. Figure 12B shows the coefficients from the Event Study design γ_{τ}

$$Value_{rt} = \sum_{\tau=21Q1}^{23Q3} \gamma_{\tau} I(t=\tau) Treat_r + \kappa_r + \lambda_t + \varepsilon_{rt},$$

excluding the capital cities. It justifies the assumption of parallel trends for DID specifications (6).

Table 10: The effect of Russian propaganda on sanctions circumvention

VADTABLES	(1)	(2)	(3)	(4)	(5)	(9)	(7)	(8)	(6)	(10)	(11)
VANIABLES			nadarı	Dependent variable, value of region-montal-product export to roassia (in in todd)	value or regre	014-11101111-110	ance expore	nussia (III IV	(Jeo I		
Sanctioned products x			-8.71***	-7.98***		-17.3**	-30.9***		-14.6**	-21.8**	
treatment exposure (α)			(2.42)	(2.44)		(8.09)	(7.90)		(7.37)	(7.05)	
Sanctioned products x	8.76***	4.90***	0.78	2.44**		-1.87	-1.56		-6.13^{**}	-4.35^{*}	
post-invasion (β)	(1.35)	(96.0)	(1.18)	(1.20)		(2.41)	(2.18)		(2.89)	(2.57)	
Sanctioned products x post-			9.56	7.41***	7.84***	25.2***	26.2***	21.9***	29.7***	26.7***	12.1***
invasion x treatment exposure (γ)			(2.65)	(2.61)	(1.59)	(9.14)	(8.37)	(5.75)	(8.08)	(7.23)	(3.03)
Almaty or Astana x		46.5***	46.4^{***}			47.1***			47.2***	,	,
post-invasion (δ)		(6.18)	(6.18)			(6.24)			(6.19)		
Constant	18.1***	18.0***	18.0***	15.0***	2.21***	18.0***	15.0***	0.41	18.0***	15.0***	1.36*
	(0.88)	(0.90)	(0.90)	(0.80)	(0.38)	(0.90)	(0.80)	(0.96)	(0.90)	(0.80)	(0.72)
	000	000	000	, ,	ŗ	000	0	ŗ	000	, ,	ŗ
Observations	2,833	2,899	2,839	7,509	231	2,899	2,509	251	2,899	2,509	251
R-squared	0.289	0.352	0.353	0.298	0.612	0.353	0.298	0.602	0.353	0.298	0.590
Year-Month FE	Y	Y	Y	Y	Y	Y	Y	Υ	Y	Y	Y
Region FE	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Product class FE	Y	Y	Y	Y	1	Y	Y	Z	Y	Υ	1
Product class	All	All	All	A11	Sanctioned	All	All	Sanctioned	All	All	Sanctioned
Sample	All regions	All regions	All regions	No capitals	No capitals	All regions	No capitals	No capitals	All regions	No capitals	No capitals
Regional treatment exposure	$N_{\rm o}$	$_{ m O}$	Share of sp	Share of speaking Russian at home	an at home	Share	of justifying the war	he war	Share of	Share of trusting Russian news	sian news
Robust standard errors in parentheses											

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Table shows the results of regression (4).

Figure 11: Sanctions circumvention by regional treatment exposure

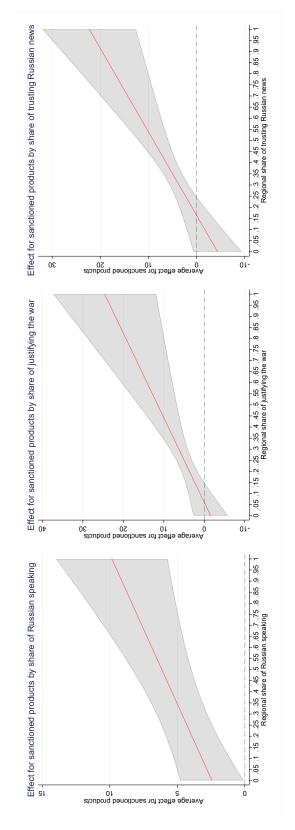
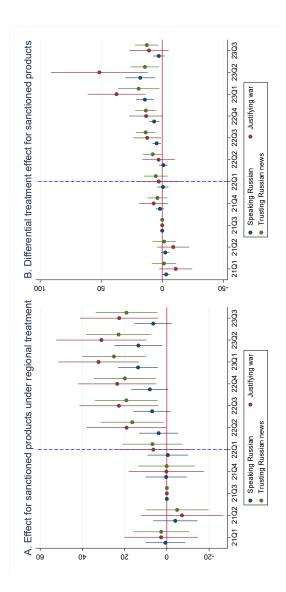


Figure 12: The dynamics of the effect of Russian propaganda on sanctions circumvention



7 Conclusion

Can language affinity facilitate the export of propaganda by authoritarian regimes during times of war? To test this question, we use data from six waves of a telephone survey conducted in Kazakhstan, and complement it with Yandex search data, our own original survey, as well as detailed trade data on exports from Kazakhstan to Russia. We find that Russia's full-scale invasion of Ukraine in February 2022 caused a spike in searches for news on the topic in Kazakhstan. Searching for information on the internet, Russian-speakers in Kazakhstan were significantly more likely to end up on pro-Kremlin media platforms than non-Russian speakers. We document how the consumption of pro-Kremlin media led to a persistent change and division in beliefs between Russian-speaking and non-Russian-speaking Kazakh citizens, a division that so did not exist before February 2022. After February 2022, Russian-speakers had a significantly more negative view of the West and a more positive view of Russia than non-Russian speakers. They were also more likely to condone Russia's invasion of Ukraine, and to justify the circumvention of economic sanctions imposed against Russia. Using detailed trade date, we show how these beliefs map into a significant increase in trade with Russia after February 2022, with the increase being particularly strong in those Kazakh regions where people are more likely to speak Russian and to consume pro-Kremlin media.

Our paper contributes to a literature that shows how the media in authoritarian regimes can have a strong influence on beliefs and behavior of the population. While the Russian case has been particularly well documented (Enikolopov et al. 2011; Zhuravskaya et al. 2020; Enikolopov et al. 2022), other cases include such diverse autocracies as Nazi Germany (Adena et al. 2015), Brazil's military dictatorship in the 1960s and 1970s (Schneider 2014), the Gulf States and Saudi Arabia (Leber and Abrahams 2019), China (Chen 2019; Weiss and Dafoe 2019; Pan et al. 2022) or North Korea (Ba et al. 2023). In these contexts, state actors are often engaged in industrialized efforts to create alternative narratives.²¹ These efforts at disinformation campaigns have culminated in what some have called "post-truth" or "pseudorealities" (Jones 2022). These false narratives take hold domestically, are replicated, and later exported globally. During the last decade, Russian-spawned narratives have taken hold in many different places around the world, influencing major events. Russian bots and user accounts interfered in both the UK's Brexit referendum and the 2016 US presidential election (Alizadeh et al. 2020; Earl et al. 2021). Recorded instances also include Russian misinformation campaigns about the Black Lives Matter movement in an attempt to polarize the public and create conflict (Earl et al. 2022). In the context of Russia's full-scale

 $^{^{21}\}mathrm{As}$ evidenced for example by Russia's troll "factories", https://www.nytimes.com/2018/02/18/world/europe/russia-troll-factory.html

invasion of Ukraine in early 2022, Russian campaigns were launched to sell an alternative narrative, in order to create opposition to Western support for Ukraine and help circumvent Western-imposed sanctions against Russia. In this context, our paper is the first to show how this strategy is producing tangible results – both in changing public perceptions and beliefs, and in reducing public concerns about circumventing Western-imposed sanctions against Russia.

We argue in this paper that Russia's ability to do this, as well as Russia's invasion of Ukraine itself, are both legacies of empire - the Russian and the Soviet one. As evidenced elsewhere, Russia's full-scale invasion of Ukraine cannot be explained by rational choice theories of authoritarian politics alone, that depict the dictator as a rational actor (Sonin 2024). Instead, Russia's imperial past has become reason and motivation for Putin's renewed interest in territorial expansion (Schulze-Wessel 2023). Those ethnic Russians who found themselves outside of Russia after the fall of the Soviet Union have started to play a pivotal role in this respect (Zevelëv 2001; Ziegler 2006). Putin has made the Russian diaspora an essential part of his foreign policy and a way of exercising soft power (Decker 2021). The annexation of Crimea in 2014, the war in the Donbass, as well as the start of the full-scale invasion in 2022 were all at least partially justified with the need to protect Russian-speakers abroad (Pieper 2020).

In our paper, we show how the Russian diaspora has become object and actor alike in Putin's effort to rebuild the Russian empire. We identify one factor that makes populations particularly vulnerable to Russian propaganda alternatives: language. Our findings are consistent with the literature on media effects in autocracies, and underscore the importance of language and online media in this respect. Other studies have found that Russian narratives also often refer to a specific Russian identity (Spies et al. 2022; Tolz and Hutchings 2023), which is beyond the scope of this study, but certainly warrants further investigation. However, neither identity nor language fully explain how propaganda in the form of narratives is transferred to other contexts, as the adoption of Russian propaganda in China (Hanley et al. 2024) or in English-speaking political discussions on Reddit (Hanley et al. 2023) show, suggesting additional avenues of research on this topic.

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A Appendix

Figure A1: Opinions of different countries and the Eurasian Economic Union (EAEU) in dynamics

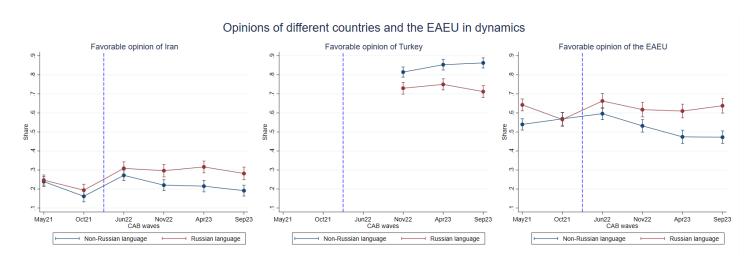


Figure A2: Main source of news about events outside Kazakhstan in dynamics

Main source of news about events outside Kazakhstan in dynamics

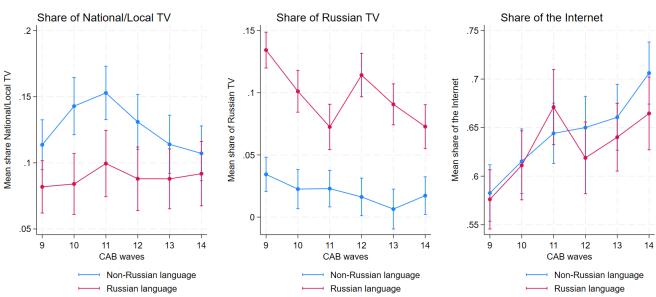


Figure A3: The usage of social media and messengers in dynamics

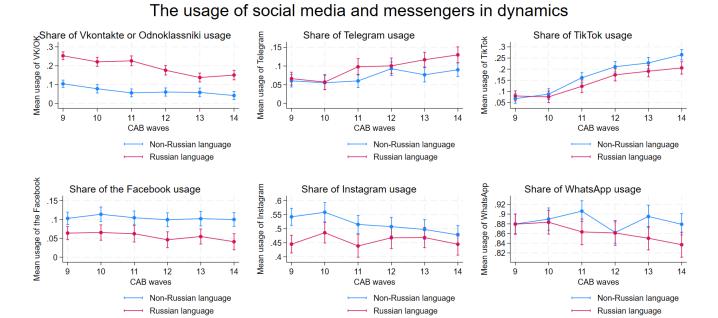


Figure A4: Media consumption for news or entertainment in dynamics

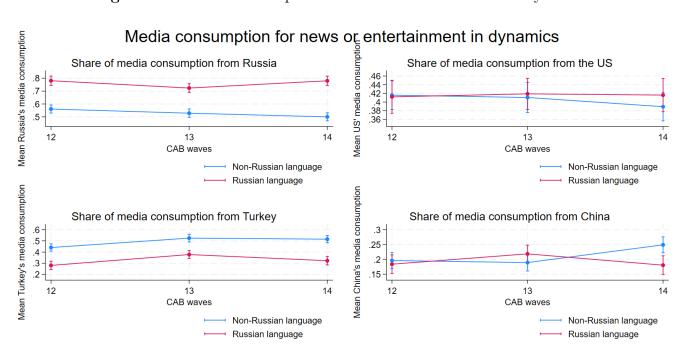


Figure A5: Search for "Yandex Dzen" on Yandex

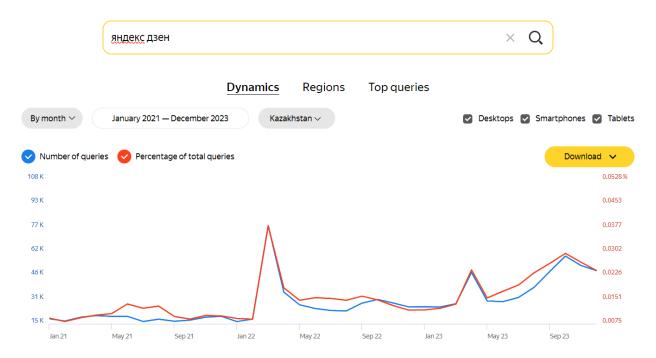


Figure A6: Search for "Yandex News" on Yandex

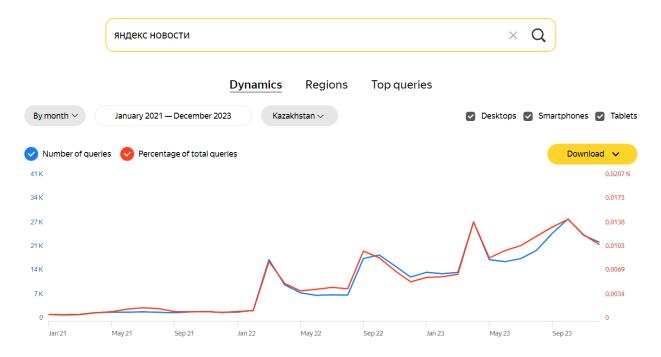


Figure A7: Search for "Euronews" on Yandex

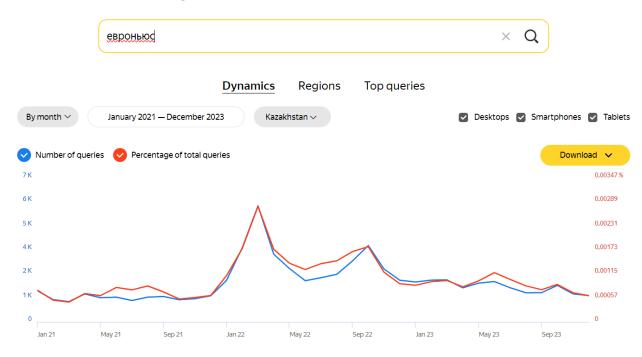
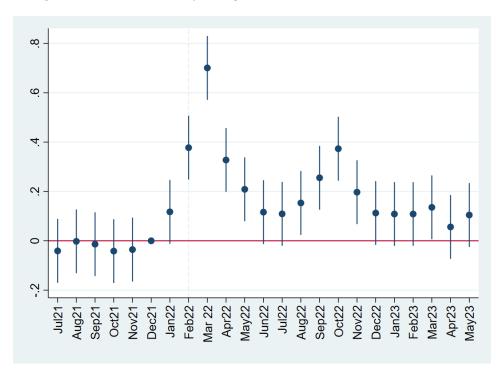


Figure A8: Event study design about the search for "Euronews"



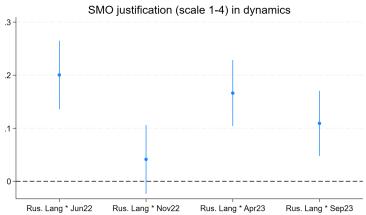
B Appendix

Table B1: SMO justification (scale from 1 to 4)

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES			SMO is jus	stified (scale)		
Russian language	0.27***	0.13	0.44***	0.16***	0.31***	0.26***
	(0.042)	(0.11)	(0.074)	(0.051)	(0.051)	(0.043)
Observations	4,458	740	1,818	2,640	3,200	3,566
R-squared	0.207	0.227	0.309	0.137	0.241	0.133
Waves	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022
Sample	All	Firm head	Above 40	Below 40	Informed	No Russians

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. The table shows the regression results (2) for a discrete dependent variable measured from 1 "SMO is completely unjustified" to 4 "SMO is completely justified". Robust standard errors are in parentheses.

Figure B1: The effect on SMO justification in dynamics



Note. Coefficients are divided to the mean of the SMO justification (scale 1-4) variable, so they can be interpreted in the percentage of the mean.

Table B2: Daily use of the Internet via a phone (binary)

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES			Daily Interne	et Use (binar	y)	
Russian language	0.042***	0.017	0.040*	0.043***	0.047***	0.040***
	(0.012)	(0.024)	(0.023)	(0.013)	(0.014)	(0.012)
	0.000	055	0.000	0.054	0.000	4.064
Observations	6,020	955	$2,\!366$	$3,\!654$	$3,\!889$	$4,\!864$
R-squared	0.076	0.089	0.090	0.039	0.094	0.083
Waves	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022
Sample	All	Firm head	Above 40	Below 40	Informed	No Russians

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Table shows the results of regression (2) for a binary dependent variable, Daily use of the Internet via a phone. Robust standard errors in parentheses.

Table B3: Frequency of Internet use via a phone (scale 1-5)

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES		Frequency of	of Internet Us	se (from 1 dai	ily to 5 never	•)
Russian language	-0.069***	-0.038	-0.082	-0.061**	-0.080***	-0.065**
	(0.026)	(0.043)	(0.054)	(0.027)	(0.029)	(0.026)
Observations	6,020	955	$2,\!366$	$3,\!654$	$3,\!889$	4,864
R-squared	0.080	0.090	0.089	0.038	0.093	0.089
Waves	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022
Sample	All	Firm head	Above 40	Below 40	Informed	No Russians

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Table shows the results of regression (2) for a discrete dependent variable with values from 1 (daily) to 5 (never), Frequency of using the Internet via a phone. Robust standard errors in parentheses.

Table B4: Channels for Russian propaganda export: National or Local TV, radio, newspapers

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES		News from N	National or L	ocal TV, rad	io, newspape	rs
Russian language	-0.036***	-0.012	-0.035	-0.035***	-0.046***	-0.033***
	(0.010)	(0.016)	(0.023)	(0.0097)	(0.013)	(0.010)
Observations	6,020	955	2,366	3,654	3,889	4,864
R-squared	0.072	0.061	0.063	0.038	0.089	0.087
Waves	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022
Sample	All	Firm head	Above 40	Below 40	Informed	No Russians
Region FE	Yes	Yes	Yes	Yes	Yes	Yes

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Table shows the results of regression (2) for a binary dependent variable, News from National or Local TV, radio, newspapers. Robust standard errors in parentheses.

Table B5: Media consumption for news or entertainment from Russia

	(1)	(2)	(3)	(4)	(5)	(6)		
VARIABLES			Use Media	from Russia				
Russian language	0.11***	0.039	0.11***	0.11***	0.13***	0.11***		
	(0.020)	(0.049)	(0.033)	(0.026)	(0.024)	(0.021)		
	(0.020)	(0.043)	(0.000)	(0.020)	(0.024)	(0.021)		
VARIABLES		Use Media from the US						
Russian language	0.054***	0.080	-0.036	0.098***	0.047*	0.060***		
	(0.021)	(0.050)	(0.035)	(0.026)	(0.026)	(0.021)		
VARIABLES		Use Media from Turkey						
Russian language	-0.11***	-0.14***	-0.13***	-0.099***	-0.15***	-0.11***		
	(0.021)	(0.049)	(0.036)	(0.026)	(0.027)	(0.021)		
VARIABLES			Use Media	from China				
Russian language	-0.018	-0.060	-0.020	-0.018	-0.031	-0.015		
	(0.017)	(0.043)	(0.031)	(0.022)	(0.023)	(0.018)		
Observations Waves	4,511	741	1,768	2,743	2,872	3,611		
	After 2022	After 2022	After 2022	After 2022	After 2022	After 2022		
Sample	All	Firm head	Above 40	Below 40	Informed	No Russians		
Region FE	Yes	Yes	Yes	Yes	Yes	Yes		

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Table shows the results of regression (2) for a binary dependent variable, Use Media for news or entertainment from Russia. Robust standard errors in parentheses.

Table B6: Trust News or Information from Russia

(1)	(2)	(3)	(4)	(5)	(6)
	Trust New	s or Informat	tion from Rus	ssia (binary)	
0.070* (0.036)	-0.10 (0.087)	0.10 (0.063)	0.052 (0.045)	0.066 (0.048)	0.076** (0.037)
	Trust New	s or Informat	ion from the	US (binary)	
0.017 (0.034)	-0.088 (0.082)	-0.013 (0.053)	0.032 (0.045)	0.032 (0.046)	0.019 (0.035)
	Trust New	s or Informat	ion from Tur	key (binary)	
-0.090** (0.039)	-0.31*** (0.093)	-0.14** (0.065)	-0.062 (0.049)	-0.12** (0.051)	-0.089** (0.040)
	Trust New	vs or Informa	tion from Ch	ina (binary)	
0.068** (0.031)	-0.051 (0.073)	0.12** (0.049)	0.037 (0.040)	0.088** (0.043)	0.060* (0.032)
1,500 0.076 After 2022 All Yes	245 0.174 After 2022 Firm head Yes	621 0.138 After 2022 Above 40 Yes	879 0.076 After 2022 Below 40 Yes	963 0.100 After 2022 Informed Yes	1,209 0.062 After 2022 No Russians Yes
	0.070* (0.036) 0.017 (0.034) -0.090** (0.039) 0.068** (0.031) 1,500 0.076 After 2022	Trust New 0.070*	Trust News or Information 0.070^* -0.10 0.10 0.036 0.087 0.063 Trust News or Information 0.017 -0.088 -0.013 0.034 0.082 0.053 Trust News or Information 0.090^{**} 0.093 0.065 Trust News or Information 0.068^{**} 0.093 0.065 Trust News or Information 0.068^{**} 0.093 0.065 Trust News or Information 0.068^{**} 0.051 0.12^{**} 0.031 0.073 0.049 0.076 0.174 0.138 After 2022 After 2022 After 2022 All Firm head Above 40	Trust News or Information from Rus 0.070^* -0.10 0.10 0.052 (0.036) (0.087) (0.063) (0.045) Trust News or Information from the 0.017 -0.088 -0.013 0.032 (0.034) (0.082) (0.053) (0.045) Trust News or Information from Tur -0.090^{**} -0.31^{***} -0.14^{**} -0.062 (0.039) (0.093) (0.065) (0.049) Trust News or Information from Ch 0.068^{**} -0.051 0.12^{**} 0.037 (0.031) (0.073) (0.049) (0.040) $1,500$ 245 621 879 0.076 0.174 0.138 0.076 After 2022 Aft	$\begin{array}{c ccccccccccccccccccccccccccccccccccc$

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Table shows the results of regression (2) for a binary dependent variable, Trust News or Information from Russia. Robust standard errors in parentheses.

Figure B2: The effect on the main source of news and the use of social media in dynamics

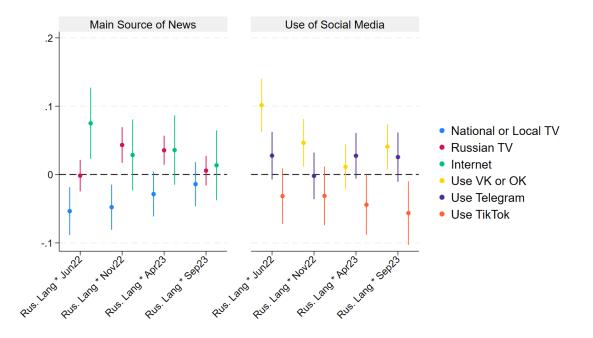


Figure B3: The effect on the media consumption in dynamics

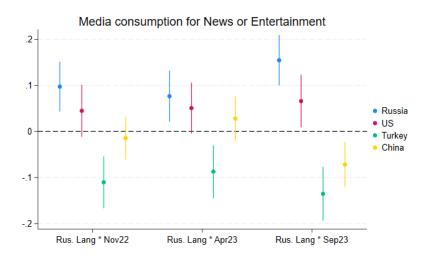


Figure B4: Main source of news about events outside Kazakhstan: event study

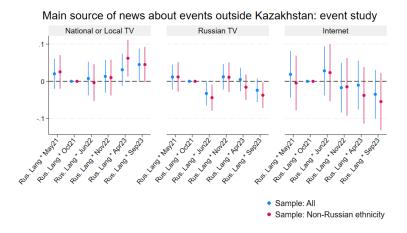


Figure B5: The usage of social media and messengers I: event study

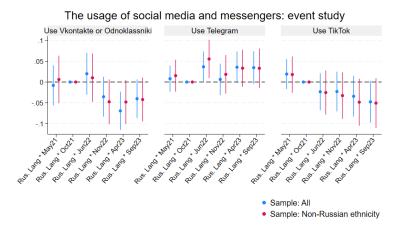


Figure B6: The usage of social media and messengers II: event study

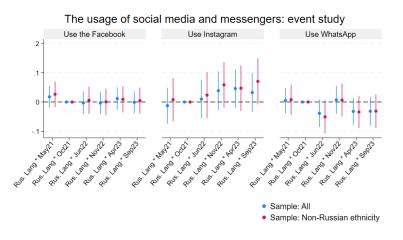
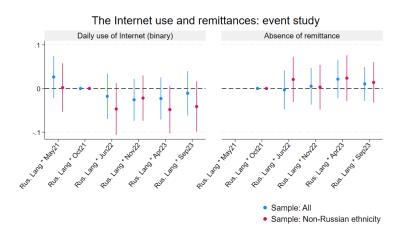


Figure B7: The Internet use and remittances: event study



C Appendix

C.1 List experiment

Table C1: Summary statistics

Variable	N	Mean	SD
age	5025	42.7	16.1
education			
Complete higher education	5025	0.232	0.422
Complete secondary education/ Complete school	5025	0.298	0.457
Complete Vocational education (vocational school, lyceum, college, technical school, etc.)	5025	0.208	0.406
Incomplete higher education	5025	0.0756	0.264
Incomplete secondary education/ Incomplete school	5025	0.0796	0.271
Incomplete Vocational education (vocational school, lyceum, college, technical school, etc.)	5025	0.0903	0.287
No education	5025	0.0161	0.126
ethnicity			
Kazakh	5025	0.722	0.448
Other	5025	0.033	0.179
Russian	5025	0.245	0.43
financial_situation			
We are not experiencing financial difficulties and, if necessary, can buy anything	5025	0.0625	0.242
We don't have enough money even for food	5025	0.148	0.355
We have enough money for everything except very expensive purchases like a car or apartment	5025	0.247	0.431
We have enough money for food and clothing, but it's difficult to buy durable goods like a TV or refrigerator	5025	0.319	0.466
We have enough money for food, but not for clothing	5025	0.224	0.417
male	5025	0.487	0.5
region			
Abai	5025	0.0306	0.172
Akmola	5025	0.0312	0.174
Aktobe	5025	0.0494	0.217
Almaty city	5025	0.135	0.341
Almaty region	5025	0.0446	0.206
Astana city	5025	0.085	0.279
Atyrau	5025	0.035	0.184
East Kazakhstan	5025	0.0269	0.162
Jambyl	5025	0.0396	0.195
Jetisu	5025	0.0189	0.136
Karaganda	5025	0.0529	0.224
Kostanay	5025	0.0283	0.166
Kyzylorda	5025	0.109	0.312
Mangystau	5025	0.0386	0.193
North Kazakhstan	5025	0.0271	0.162
Pavlodar	5025	0.0593	0.236
Shymkent	5025	0.0605	0.238
Turkistan	5025	0.089	0.285
Ulytau	5025	0.0109	0.104
West Kazakhstan	5025	0.0283	0.166
russian_media_high	5025	0.301	0.459

C.2 List experiment

List experiments – also known as the item count technique – have been successfully used, for example, to study support for authoritarian leaders (Blair et al. 2014; Frye et al. 2017; Robinson and Tannenberg

Table C2: Regression Models Direct Question

VARIABLES	(1) Sanction evasion	(2) SMO/invasion Ukraine	(3) Working 50h/w
THE TOTAL OF THE T	Sufficient evaluation	SWO/ III VABIOII C KI GIII C	Working doin/ w
Russian Media consumption	0.14***	0.086***	0.0012
	(0.016)	(0.015)	(0.015)
$treatment_n = 2$, $privacy$	0.012	0.0023	0.0087
	(0.016)	(0.015)	(0.016)
$treatment_n = 3$, $surveillance$	-0.0090	0.0049	0.0099
	(0.016)	(0.015)	(0.016)
$framing_invasion == SMO$		0.0089	
		(0.012)	
ethnicity_russian	0.10***	0.0069	-0.093***
	(0.018)	(0.017)	(0.017)
language_russian	-0.15***	-0.14***	-0.14***
	(0.017)	(0.017)	(0.018)
age_sqr	0.000053*	0.000026	-0.000022
	(0.000030)	(0.000030)	(0.000029)
age	-0.0030	-0.00050	0.0028
	(0.0028)	(0.0027)	(0.0027)
$education_scale = 1$, No education	0.11*	0.13**	0.077
	(0.060)	(0.059)	(0.061)
education $scale = 2$, Incomplete secondary education	0.11***	0.21***	0.083***
	(0.031)	(0.030)	(0.030)
education $scale = 3$, Complete secondary education	0.034*	0.098***	0.036*
_	(0.019)	(0.017)	(0.019)
education scale = 4, Incomplete vocational education	0.045	0.066**	0.0087
<u> </u>	(0.027)	(0.026)	(0.026)
education $scale = 5$, Complete vocational education	0.025	0.039**	0.015
	(0.020)	(0.018)	(0.019)
education scale = 6, Incomplete higher education	0.011	0.011	0.024
	(0.028)	(0.027)	(0.029)
\hat{s} in ancial situation scale = 1, Not enough money even for food	0.081**	0.039	0.035
	(0.034)	(0.033)	(0.034)
\hat{s} in ancial situation scale = 2, Enough money for food but not clothes	0.053*	-0.012	0.038
	(0.031)	(0.030)	(0.031)
financial situation scale = 3, Enough money for food and clothes but not TV or refrigerator	0.043	-0.011	0.0097
	(0.030)	(0.029)	(0.030)
financial situation $scale = 4$, Enough money for everything but car or apartment	-0.032	-0.053*	0.0019
	(0.031)	(0.030)	(0.030)
Constant	0.26***	0.19**	0.15**
	(0.076)	(0.073)	(0.070)
Observations	5.025	5,025	5.025
R-squared	0.082	0.089	0.097
Region FE	Yes	Yes	Yes
Robust SE	Yes	Yes	Yes

Note. Significance levels: **** p<0.01, *** p<0.05, * p<0.10. Linear regression models, where the dependent variable is responding "justified" to the question In your opinion, is [item] generally justified or not justified? Each row in the table represents a different item. Exact wording can be found in Section 3.3. We control for age, age squared, education, ability to speak Russian, Russian ethnicity, privacy perceptions, financial situation, and regions. All variables were used in their categorical form for the estimation. The treatment privacy and treatment surveillance variables correspond to text-based reminders about the privacy in the experiment and lack thereof, respectively. Robust standard errors in parentheses.

2019; Frye et al. 2023), estimating the size of LGBT population (Coffman et al. 2013), and vote trafficking in Lebanon (Corstange 2012).

Participants are exposed to either J or J+1 items and then asked to count the number of items that apply to them, with the additional (J+1th) item being the sensitive item of interest. The premise of list experiments is that when a sensitive question is asked indirectly, respondents are more likely to give a truthful answer, even if social norms encourage them to answer the question in a particular way (Blair and Imai 2012). Fear of being judged or punished by others leads to a change in behavior best known as social desirability bias, a subset of what is known as sensitivity bias (Blair et al. 2020). More sophisticated statistical methods allow analysis beyond mean comparisons so that sensitivity bias can be shown, but also which sociodemographic factors and personality traits play a role (Imai 2011; Blair and Imai 2012).

In list experiments, inevitable nonstrategic misreporting can be kept at a minimum by specific design choices (Kuhn and Vivyan 2022). Nonstrategic measurement errors are, for example, floor and ceiling effects (Ahlquist 2018), and complexity (Kramon and Weghorst 2019). Floor and ceiling effects appear when either all or none of the statements in the list are true, and survey participants thus must reveal their preference over the sensitive item in order to remain giving truthful answers. In this case, one would have to expect strategic misreporting, i.e., lying. List experiments thus help to elicit true preferences, but, by design, suffer from overwhelming or confusing study participants. By careful consideration of the design, these measurement errors can be minimized (Glynn 2013; Blair et al. 2020), for example by choosing a suitable control list (Agerberg and Tannenberg 2021). Is it furthermore common practice to validate experiments before going into the field (Rosenfeld et al. 2016).

Our list experiment takes this literature into account and is designed accordingly. Non-strategic measurement errors were tried to be minimized according to suggestions from the literature:

First, floor and ceiling effects were avoided by (1) choosing items where the prevalence among the population was known beforehand, and (2) choosing control list items that are negatively correlated. For example, the items 'homosexuality' and 'holding on to religious values' are strongly negatively correlated. It is very unlikely that respondents agree with both items. Furthermore, it is unlikely that none of the items are true, statistically. Items were taken and adapted from the World Value Survey and Central Asian Barometer. Thus, ceiling effects and floor effects could, by design, be minimized. Second, sensitive control list items were chosen, in order to conceal the item of interest and not evoke demand effects (Zizzo 2010). Third, a placebo item is used in order to test whether there are design

 $^{^{22}}J$ is commonly equal to 3 or 4. Higher values substantially increase complexity, while lower values are risking to compromise the privacy of the participants (floor effect).

effects (Frye et al. 2017, 2023). Fourth, a pre-test was run with 400 subjects in order to validate the lists. Last, a double list experiment was employed in order to enhance statistical power. In a double list experiment the sample is split into two groups, and each half acts as a control group for the other half, see Table C3.

Table C3: List experiment design

In the next section, you will be presented with a number of items. Please read the lis	st of items carefully.
After you have read the items, please indicate HOW MANY of the items (things or a	
We will not be able to know which items are justified for you.	3
ů ů	of the two columns below with equal probability
	In your opinion, HOW MANY of the things or actions below are generally justified?
[selection, randomization of list item order]	[selection, randomization of list item order]
Homosexuality	
Helping Russia avoid Western sanctions	Homosexuality
Full time work for women	Full time work for women
Holding on to religious values	Holding on to religious values
0	
1	1
2	
3	
4	3
In your opinion, HOW MANY of the things or actions below are generally justified?	In your opinion, HOW MANY of the things or actions below are generally justified?
[selection, randomization of list item order]	[selection, randomization of list item order, randomization of framing: SMO or invasion - variable framing34]
Suicide	Suicide
Being proud of national traditions	Being proud of national traditions
Aspiring to Western values	Russia's Special Military Operation in Ukraine/ Russia's invasion of Ukraine
Aspiring to Western values	Aspiring to Western values
1	1
	2
3	3
<u> </u>	4
In your opinion, HOW MANY of the things or actions below are generally justified?	In your opinion, HOW MANY of the things or actions below are generally justified?
[selection, randomization of list item order]	[selection, randomization of list item order, randomization of framing: SMO or invasion - variable framing34]
Death penalty	Death penalty
Violating traffic rules	Violating traffic rules
Banning smoking in public places	Working more than 50 hours per week
	Banning smoking in public places
1	
2	
3	
	1.4

Table C4: Balance Table List Experiment

Variable	Level (for categorical variables)	Group A	Group B	Difference
Framing	SMO	0.492	0.504	0.012
		(0.500)	(0.500)	(0.014)
	Invasion of Ukraine	0.508	0.496	-0.012
		(0.500)	(0.500)	(0.014)
Russian media consumption	Yes	0.295	0.307	0.012
		(0.456)	(0.461)	(0.013)
Ethnicity	Russian	0.237	0.253	0.016
Ţ.		(0.425)	(0.435)	(0.012)
Language skills	Russian	0.628	0.616	-0.011
		(0.484)	(0.486)	(0.014)
Age		42.603	42.708	0.106
		(16.171)	(16.084)	(0.455)
Education	No education	0.018	0.014	-0.003
		(0.132)	(0.120)	(0.004)
	Incomplete secondary education	0.084	0.075	-0.009
		(0.277)	(0.264)	(0.008)
	Complete secondary education	0.313	0.283	-0.030**
		(0.464)	(0.450)	(0.013)
	Incomplete vocational education	0.085	0.096	0.012
		(0.278)	(0.295)	(0.008)
	Complete vocational education	0.198	0.219	0.022*
		(0.398)	(0.414)	(0.011)
	Incomplete higher education	0.076	0.075	-0.001
		(0.265)	(0.264)	(0.007)
	Complete higher education	0.227	0.237	0.009
		(0.419)	(0.425)	(0.012)
Financial Situation	Not enough money even for food	0.151	0.144	-0.007
		(0.358)	(0.351)	(0.010)
	Enough money for food but not clothes	0.225	0.224	-0.001
		(0.418)	(0.417)	(0.012)
	Enough money for food and clothes but not TV or fridge	0.312	0.325	0.013
		(0.463)	(0.469)	(0.013)
	Enough money for everything but car or apartment	0.250	0.244	-0.006
		(0.433)	(0.430)	(0.012)
	Enough money for everything	0.062	0.063	0.001
		(0.242)	(0.243)	(0.007)

Note. Significance levels: *** p<0.01, ** p<0.05, * p<0.10. Group A corresponds to the left column and Group B to the right column of Table C3.

D Appendix