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13 October 2023

Online at <https://mpra.ub.uni-muenchen.de/123797/>  
MPRA Paper No. 123797, posted 15 Mar 2025 12:22 UTC

# Love or politics? Political views regarding the war in Ukraine in an online dating experiment

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February 2025

## Abstract

Political views affect various behaviors, including relationship formation. This study conducts a field experiment on a large Russian dating site and gathers data from over 3,000 profile evaluations. The findings reveal significant penalties for those who express pro-war or anti-war positions on their dating profiles. Age emerges as the most polarizing factor: younger individuals are less likely to approach pro-war profiles but not anti-war ones, whereas older individuals are less likely to respond positively to profiles indicating anti-war views but not pro-war ones. The results align with survey evidence of a positive relationship between respondents' age and expressed support for the war in Russia, although the experiment indicates a higher degree of polarization. Overall, the experimental findings demonstrate that survey data can reveal trends and relationships between individuals' characteristics and their opinions, but may overstate the levels of support for government agendas in non-democratic states.

JEL classification: D1, J12, C93, Z13

Key words: affective polarization; relationship formation; assortative mating; field experiment; war in Ukraine; political views; revealed preferences

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# 1 Introduction

”Pay less attention to what men say. Just watch what they do.”

— Dale Carnegie

Russia’s war in Ukraine is inflicting enormous humanitarian and economic costs on Ukraine, Russia itself, and other countries around the world.<sup>1</sup>

This paper aims to address two key questions. To what extent do people in the aggressor country, Russia, support the war in Ukraine? And how reliable is survey evidence collected in non-democratic states? The primary goal is to examine these issues in the context of Russia’s invasion of Ukraine.

Many country experts doubt the reliability of political survey data collected in an authoritarian country at war, particularly regarding the war itself.<sup>2</sup> This is due to the fact that supportive views are heavily promoted and encouraged, while opposing positions and their expressions are subject to prosecution. The use of the word ”war” in relation to the conflict is illegal in Russia, highlighting the sensitive nature of the topic and the potential risks associated with openly discussing or researching it.

Political views manifest themselves in political, social, and economic behaviors. In repressive states, engaging in certain political actions, such as voting, may be impossible and expressing certain views can result in severe negative consequences. This makes it challenging to accurately assess polarization in such high-stakes environments due to the costs and risks associated with specific opinions. However, there are more private areas of life that are relatively less controlled even in authoritarian regimes, where evidence of political polarization may be observed.

In this paper, I study the impact of political views regarding the war in Ukraine on romantic relationship formation in Russia by conducting a field experiment on a large online dating site.<sup>3</sup> Three types of profiles were created: pro-war, anti-war, and a neutral baseline with no signal of political views. The results indicate that the disclosure of either pro- or anti-war political views on a dating profile reduces

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<sup>1</sup>This study was conducted between late September and late November 2022, seven months into the Russian invasion of Ukraine.

<sup>2</sup>See Kizilova and Norris (2022) and list experiment by Chapkovski and Schaub (2022), as well as the report by Yekaterina Pachikova and Nadezhda Kolobaeva in the Insider ”The silent nation: Why Russia’s wartime opinion polls cannot be trusted” from June 2, 2023 at <https://theins.ru/en/society/262262>.

<sup>3</sup>Online dating has become a popular way to meet potential marital partners in Russia. Between a fifth and one third of adults, especially those in younger age groups and in big cities, have used dating sites. See representative surveys of adults in Russia: 1) Russian Public Opinion Research Center (JSC ”VCIOM”), 2018, in Russian <https://wciom.ru/analytical-reviews/analiticheskii-obzor/lyubov-nechayanno-nagryanet>. Dating sites took second place after meeting through friends and relatives, with approximately 20% of respondents saying they have used dating sites to find a significant other. 2) MIR payment system survey, 2021, in Russian <https://ria.ru/20210214/znakomstva-1597393002.html>. 33% of men (and 32% of both men and women) admitted to having used dating sites at some point.

the probability of being approached by potential daters. Age is the dividing factor. Daters under the age of 34 are significantly less likely (by up to 17.9 percentage points, or almost 40% relative to the neutral baseline) to approach pro-war profiles. Meanwhile, those between the ages of 34 and 45 are less likely to approach profiles signaling anti-war views (up to 6.9 percentage points or 18.4%). Notably, there is no evidence of polarization within these age groups, as individuals in each group are significantly less likely to approach only one profile type signaling political views.

Why do some online daters behave differently towards profiles signaling political views? The limitation of the correspondence framework is that while average differences in behavior can be observed and measured, the underlying reasons for these differences may not be apparent. The literature on affective polarization provides a compelling explanation. Affective polarization suggests that individuals tend to have a preference for others who share their political views and ideology, while showing a bias against those they disagree with.<sup>4</sup> Several experimental studies in the field of affective polarization have provided evidence that political views play a significant role in shaping dating decisions.<sup>5</sup> The selection of similar mates and the rejection of potential romantic partners with opposing views is one of the possible explanations for the high levels of homophily in the political views of spouses found in the assortative mating literature.<sup>6</sup>

Inference of the political views of online daters from their decisions to approach specific experimental profiles relies on two assumptions. The first assumption is that online daters behave straightforwardly, that is, if an individual expresses interest in one dating profile but not another, it can be inferred that he or she perceives a higher level of utility with the former compared to the latter. The second assumption is that of affective polarization: individuals prefer dating partners whose views align with their own and avoid those with opposing views. Therefore, the choices of dating partners can reveal the political views of online daters.

Online daters can approach (like) both neutral and political views signaling profiles without having to choose since the cost of giving "likes" is negligible. This means all daters may like neutral profiles regardless of their own political views. However, only those who are not averse to the signaled political views would approach the profiles signaling those specific views. Consequently, the probability of being liked by dating site users for neutral profiles is higher than for those signaling specific political views.<sup>7</sup>

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<sup>4</sup>Affective polarization typically refers to animosity towards out-partisans. In their Brexit study, Hobolt et al. (2021) show that affective polarization can emerge from identities beyond partisanship. Iyengar et al. (2019) review the consequences of affective polarization in the US.

<sup>5</sup>See Huber and Malhotra (2017), Nicholson et al. (2016), and Easton and Holbein (2021).

<sup>6</sup>See, for example, Alford et al. (2011), Watson et al. (2004), and Iyengar et al. (2018). Other possible explanations are that people from similar backgrounds are more likely to meet and marry, and that spouses become more alike in their views over the course of the relationship. See Iyengar et al. (2018) and Hudde and Grunow (2024) for the review of the literature and evidence of the importance of mate selection based on partisan preference in explaining the levels of spousal similarity in political views. These studies have been conducted in the US, with the exception of Hudde and Grunow (2024) which uses German data, and have evaluated the role of partisanship, ideology, and sometimes voting choices in the formation and continuity of romantic relationships.

<sup>7</sup>Note that this should hold for any trait affected by the assortative mating. It may seem that the

If online daters dislike those who express political views that do not align with their own, the share of online daters with specific political views can be determined by comparing the proportion of daters engaging with politically neutral profiles with the proportion of daters approaching profiles that signal opposing views (views they dislike). The experimental findings suggest that among dating site users younger than 34 years old, up to 40% are estimated to hold anti-war sentiments that are strong enough to affect dating decisions. For dating site users aged 34 to 45, up to 18.4% are inferred to support the war.

The second goal of the paper is to compare the experimental findings to survey evidence on the overall prevalence of pro-war and anti-war opinions among the subsample of the population most closely represented by the online daters. Assessing the validity of survey data is important, as although actions may speak louder than words, gathering and analyzing survey responses is a simpler and more convenient process.<sup>8</sup>

When bridging experimental and survey evidence, it is important to be mindful of issues related to external validity (recently discussed in List (2020)), such as sample representativeness and the relationship between actionable (in dating) and expressed opinions. This paper carefully discusses the characteristics of the sample compared to those of the Russian population and recognizes that the findings on the effects of political views on relationship formation may not straightforwardly generalize to other spheres of decision making. Nevertheless, it claims that the qualitative results are externally valid in providing information on potential biases in survey data.

How do the experimental results compare with survey evidence? Section 5 of this paper carefully analyzes survey data from Russia on support for the war during the Fall of 2022 when the experiment was conducted.

First, survey data show polarization related to age, with older respondents expressing higher support for the so-called special military operation in Ukraine. This trend aligns with experimental findings that younger online daters are less likely to approach pro-war profile types but not anti-war types, while older individuals tend to show the opposite pattern, albeit with a stronger degree of polarization suggested by the experiment.

Second, survey evidence shows predominant support for the so-called special military operation in Russia, both overall and among a specific subpopulation that is most similar in characteristics to the experimental subjects. Initial analysis of experimental results indicates that levels of support and opposition for the war are statistically similar among online daters in the full sample of experimental subjects aged 18 to 45. There is a lower probability of approaching profiles with pro-war views (a decrease of up to 5.8 percentage points or 14.8%) compared to the neutral base-

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implication is that it is beneficial to put as little information as possible on a dating profile to attract more potential daters. However, if quality matters more than quantity and further communication is costly (exchanging messages to get to know the other person), then one should put as much information as possible on the profile and get fewer but higher match-quality “likes”.

<sup>8</sup>This is a paraphrase of Mark Twain’s quote: “Action speaks louder than words, but not nearly as often.”

line, as well as a lower probability for anti-war views (up to 6.6 percentage points or 16.9%). However, it is important to note that the age distribution on this dating site skews heavily towards older individuals in their late thirties and forties. Adjusting for this skew reveals that only profiles signaling pro-war views are significantly penalized in the experimental sample, with their probability of being approached decreasing by at least 7.2 percentage points or between 19.9% and 32.6% compared to the neutral baseline.

These findings underscore the importance of exercising caution when analyzing survey data from non-democratic states, as it may not accurately reflect individuals' behaviors or beliefs regarding politically sensitive questions. While trends in survey data can offer insights, such as the relationship between age and support for the war in Russia, the levels, particularly as manifested in behavior, may be exaggerated. Two factors could explain this difference in expressed versus actionable views: 1) some expressions of support may be "cheap talk," meaning they do not translate into real-world action or behavior, at least not when it comes to forming relationships; and/or 2) there might be a selection bias among survey respondents.

Online dating sites are a convenient setting for correspondence experiments, and several studies have been conducted to test the influence of various traits on mate selection in these environments, such as beauty (Egebark et al. (2021)), education (Neyt et al. (2019), Ong (2016), Egebark et al. (2021)), income (Ong and Wang (2015)), job prestige (Neyt et al. (2022)), and ethnicity (Jakobsson and Lindholm (2014)). While I am not aware of any studies that have evaluated the impact of political views on the probability of being approached by potential partners in an online dating setting, previous studies on affective polarization in emulated online dating environments by Huber and Malhotra (2017), Nicholson et al. (2016), and Easton and Holbein (2021) have found that participants are more likely to reach out to potential partners who share their political views, such as ideology, partisanship, or support for a particular presidential candidate.

This paper is also related to the literature on inferring preferences of daters from their behavior in observational and experimental studies. For example, Hitsch et al. (2010) analyze preferences for various attributes of online dating site users, while Fisman et al. (2006), Fisman et al. (2008), and Belot and Francesconi (2013) conduct similar analyses in speed dating settings. Recently, Low (2024) examines the preferences of online daters for the age of potential partners in a hybrid field and lab experiment that involves random assignment of age to otherwise identical experimental profiles.

This paper makes several contributions. First, it contributes to a slim body of experimental literature confirming the presence of affective polarization in Russian society (Chapkovski and Zakharov (2022)). Second, this study is also the first to attempt to assess the prevalence of particular political views from observed behavior. Third, it compares the inferred political views that impact relationship formation with survey evidence on expressed political views in a subset of the Russian population that is most similar in its characteristics to the sample of online daters. This sheds light on the reliability of survey methods in capturing individuals' political preferences

in non-democratic regimes.

The remainder of the paper is organized as follows. In Section 2, I describe the experiment, including ethical considerations. Section 3 presents the results of the experiment, while Section 4 discusses the inference of political views from observed behavior, along with caveats and limitations. In Section 5, a summary of the available survey evidence on support for and opposition to the so-called special military operation in Ukraine is provided, focusing on a subset of the population with characteristics similar to experimental subjects. Section 6 compares the experiment results to survey data, and Section 7 concludes.

## 2 Experiment: Description

In this section I provide the details of the experiment.

### 2.1 Dating Site Description

The Russian online dating scene has undergone significant changes in 2022. In April, the major platform Badoo exited the Russian market, and around the same time, Tinder ceased its paid services. Not all users on these platforms shifted to other Russian alternatives, but a substantial number did, resulting in an increase in the user base for these sites.

For ethical reasons, I do not disclose the specific dating site used for the experiment. The experiment was conducted without permission from the site owners.<sup>9</sup>

The dating website used for the study claims to have about twenty million members globally, with the majority located in Russia. Objective data on the site’s usage is gathered from Similarweb information on online visitors and digital activity. From September to November 2022, the dating platform had on average 4.5 million monthly visits, with over 88% originating from Russia. Approximately 62% of users are male, and nearly half fall within the age range of 25 to 45.

The dating site was established in the early 2000s and follows a typical structure for such platforms. Users begin by creating a profile, filling out a brief questionnaire, stating their preferences for potential partners, and posting pictures. They can then search for dating prospects, give them “likes”, and send messages.

Some services are available for free, but the majority necessitate a paid subscription (around \$5 per month for women and \$15 per month for men at the time of the experiment). Without payment, users can set up a profile, browse profiles of those who have seen their own profile, search for potential partners, and send “likes”. They can also see who has viewed their profile but cannot view which users liked them unless there is mutual interest. Should two users like each other, they can then exchange a restricted number of messages.

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<sup>9</sup>The author will provide the dating site’s name upon request.

With a premium subscription, users have access to viewing profiles of individuals who have expressed interest by sending "likes," unlimited messaging with any user, enhanced search capabilities, and the ability to browse other user profiles without being detected (the invisibility option). A particularly beneficial aspect of the paid subscription for this study is the capacity to restrict profile views based on specific criteria such as gender, age, and geographic location.

## 2.2 Fictitious Profiles and Identification Strategy

I create three types of online dating profiles based on the signal being sent regarding their political stance on Russia's war in Ukraine. The first type of profile is "Neutral" and does not signal any political views. The second type is the "Pro" war type as it signals support for the war in Ukraine. The third type of profile is the "Anti" war type with the opposing view being signaled.

For this study, only female profiles were created. Prior to creating the experimental profiles, I conducted practice sessions for both male and female profiles. Through these trial runs, it became evident that conducting the experiment with male accounts would not be feasible, as female users on the site rarely took any initiative. The male profiles received minimal messages and "likes", with 3-4 "likes" being the maximum for the six male profiles created during practice. Consequently, only female profiles were employed in the experiment.<sup>10</sup>

Easton and Holbein (2021) provide evidence of treatment effect heterogeneity by gender in the Online Appendix to their experimental study on political views and online dating success. Specifically, the results suggest that males are less likely to punish out-party members than females. Thus, using only male subjects may make it more challenging to find sizable effects of political views on online dating success of women, and the effect is likely to be larger for the female users. The significant findings of this study underscore the strength of affective polarization sentiment.<sup>11</sup>

Ideally, three types of profiles featuring the same woman's face would be created and posted simultaneously in a single location, so that the only source of variation is the signal regarding political preferences. However, this is not possible, as the site moderators and users would likely become aware of the experiment. Consequently, I utilized images of three distinct young women from the Chicago Face Database (CFD).<sup>12</sup> Each woman's image—referred to as Woman 1, Woman 2, and Woman 3—was employed to create profiles categorized as "Neutral," "Pro" and "Anti" types. The attractiveness norming data provided within the Chicago Face Database was used for attractiveness control purposes. This dataset contains attractiveness ratings on a

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<sup>10</sup>The literature commonly documents that women on dating sites receive more contacts from men who readily initiate the conversation. See Abramova et al. (2016) for the review.

<sup>11</sup>Men in the online dating community seem to be less selective than women for several other traits as well. For example, in Neyt et al. (2019) the effect of higher level of education on the probability of receiving a "like" from Tinder users is only significant for the male experimental profiles.

<sup>12</sup><https://www.chicagofaces.org/>. Refer to Ma et al. (2015) for details. Also utilized in an online dating study by Ranzini et al. (2022).



1–7 Likert scale (1 = Not at all, 4 = Neutral, 7 = Extremely). The average number of raters for each selected female face is 91 with attractiveness scores ranging between 4.7 and 4.9. Figure A.1(a)-(c) in the Appendix shows anonymized photos of Women 1-3 along with their respective attractiveness scores.

Three particular geographic regions have been selected for the profiles: Moscow, Saint Petersburg, and Sverdlovskaya oblast. These locations represent the top three urbanized regions in Russia by population.<sup>13</sup> Individuals residing in urban settings show a higher propensity to utilize online dating platforms for connecting with potential partners.

To avoid detection by both dating site moderators and users, each face is posted only once in one of these three geographic locations signaling one of the three types of political preferences. The dating site users in each location see each woman and each type of profile only once. Table 1 clarifies the woman - profile type combination by region.

**Table 1** – Representation of the randomization process by regions and profile types.

<b>Region \ Type</b>	<b>"Neutral"</b>	<b>"Pro"</b>	<b>"Anti"</b>	<b>"Benchmark"</b>
<b>Moscow</b>	Woman 1	Woman 2	Woman 3	Woman 4
<b>St Petersburg</b>	Woman 3	Woman 1	Woman 2	Woman 4
<b>Sverdlovskaya Obl</b>	Woman 2	Woman 3	Woman 1	Woman 4

The analysis relies on the assumption that, on average, men in these three regions have similar preferences for the appearance of women. This means that if each Woman is posted as "Neutral" in each region, any variations in average response rates from men in different regions can be attributed solely to regional differences in dating site user activity, rather than to differences in preferences for the appearance of each of these women.

Provided that this assumption holds, the analysis can be performed as if each woman was posted as three distinct profile types within the same geographic location, and any regional differences in activity levels can be averaged out.

The study design and identification strategy used in this paper are similar to those employed by Neyt et al. (2019) and Neyt et al. (2022).<sup>14</sup> Unlike these authors, I also add a "Benchmark" profile type.

The "Benchmark" profile is created using another female portrait from the CFD (Woman 4) with a neutral appearance. Figure A.1(d) in the Appendix shows her

<sup>13</sup>Moscow oblast has a larger urban population than Saint Petersburg or Sverdlovskaya oblast. However, unlike these areas, it does not have an obvious city/location where one could place an artificial woman's profile. Overall, the level of urbanization in Russia is high, with 75% of the population living in cities and towns.

<sup>14</sup>Neyt et al. (2019) and Neyt et al. (2022) explore preferences for the educational level and job prestige of potential dating partners on Tinder. They use photos of four individuals per gender, posted in three (education) or four (job prestige) different cities, each with one of four levels of education / job prestige.

anonymized photo and attractiveness score. If men in different geographical areas share similar preferences regarding her appearance, then differences in response rates to her profile could be attributed to other factors, such as the regional dynamics of the dating scene. Also, differences in response rates to women in "Neutral" and "Benchmark" profiles in the same region can be used to assess the relative attractiveness of these women.

The "Benchmark" profiles were also posted in October in all three geographic locations.

**Signaling political preferences.** For the purposes of this study it is important that the political preferences of experimental profiles are easily observed even by the inattentive dating site users. Thus, political views of women in created profiles are signaled in two ways: 1) name and 2) picture.

The dating site allows users to choose any name or nickname they desire. The "Pro" profiles are assigned names that make their position clear, such as Zoya Patriot. The "Anti" profiles are given names that signal peaceful position (Maria ForPeace, for example). The "Neutral" profiles' nicknames do not signal political views, such as Daria Nice.

The pictures of women are modified using Adobe Photoshop to signal specific political views. The profiles with "Pro" position are dressed in military green against a pale red background, wearing a pro-war badge, which is a round or square pin with letter "Z". The profiles with "Anti" position wear yellow shirts and are positioned against deep blue background. They also wear blue pins with white doves. The "Neutral" profiles are in pink shirts against pale blue backgrounds with neutral pins (a smiley face). To decrease the probability of detection, the backgrounds in each type of profile were of one of two kinds: formal photo studio or nature. The examples of profile photos are presented in Appendix Figure A.1.

The "Z" symbol and the words "patriot" and "patriotism" have become the official symbols of support for the so-called special military operation in Ukraine. Thus, I expect that the signal about the pro-war position of the "Pro" profiles is straightforward and easy to interpret. However, the anti-war movement in Russia has been unable to develop clear and generally recognized symbols due to the intense prosecution of individuals attempting to protest against the war and the suppression of all information channels that would not toe the official line.<sup>15</sup> The explicit "No War" texts and Ukrainian flag badges are the most heavily prosecuted types of the anti-war sentiment expression. In the best-case scenario, their display in the online dating profiles would risk the removal of these profiles by the site administration since their presence would endanger the management and owners of the resource. Thus, more subtle signals of the anti-war position were chosen, such as declaration of being for peace instead of being opposed to war. Since it is possible to be for peace but on

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<sup>15</sup>Independent media human rights project OVD-Info collects and reports data on the political prosecution in Russia at <https://english.ovdinfo.org/>. The government of Russia considers OVD-Info to be an "unregistered public association performing the functions of a foreign agent".

terms of the Russian Federation, the colors of the flag of Ukraine in the photo in combination with the universal peace symbol on the badge communicate the pro-Ukraine leanings.<sup>16</sup>

The cost of this subtlety may be the loss of the signal’s strength and clarity. Unfortunately, it is not possible to completely rule out the weakening of the signal due to the necessary subtlety. However, there are some indications that the signal is received and correctly interpreted by at least some of the site’s users. First, many users sent messages to the female profiles. Some of these users, albeit, very few, commented on the names and specific features of the profile photos. In total, 13 users made these types of comments, 11 for the “Pro” and 2 for the “Anti” females. The difference in numbers may reflect both the greater clarity of the pro-war signal and the safety of commenting about it. In the test rounds another 2 users commented on the signal of the “Anti” female profiles. All four comments demonstrated at the very least that there were no alternative interpretations of the look.<sup>17</sup> The second argument for the signal being received (albeit not necessarily for its correct interpretation) is the substantial difference in response rates between the “Neutral” and “Anti” profiles.

The moderation principles of the dating site presented additional challenges for the creation of profiles. The rules of the site explicitly prohibit the creation of fake accounts and posting images processed with Adobe Photoshop. Obviously, I violate both rules in the course of this study. The site uses detection algorithms and human moderators to analyze posted images. Thus, to avoid the deletion of profiles and pictures, I use various photos of the same woman from the CFD (neutral, closed smile, open smile) and mirror imaging to alter pictures in different profiles. I do not expect the variation in facial expressions to affect the results, since for each type of profile with the exception of “Benchmark” the expressions and backgrounds vary by region and any possible effect would be averaged out.<sup>18</sup> The disguising technique did not always work, however, and some of the profiles were deleted by the moderators and had to be recreated. Fortunately, the moderation occurs within the first hour after the profile is created, so the interference from each deleted account in the course of the experiment is minimal.

**Other profile characteristics.** The goal is to create a profile that would appear attractive to the largest number of users on the dating site. Thus, some additional information is also provided. The age of each woman is set to be 29. The age of most male users of the site is between 25 and 45, so a woman slightly younger than thirty should fit the age criteria for the majority of these users. To minimize zodiac sign

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<sup>16</sup>Due to the increasing intensity of anti-war repressions over time, it is unlikely that such an experiment could have been conducted after the Fall of 2022, as the site moderators would likely have prohibited the existence of profiles even with more subtle anti-war signals.

<sup>17</sup>One user complemented the female in the profile for her “anti-war style”.

<sup>18</sup>Additionally, In Section 3.2, I discuss re-posting Woman 2 as a “Neutral” profile in Sverdlovskaya oblast one month after the initial posting. In this re-posting, Woman 2’s photo features a different background (nature instead of a studio) and a different facial expression (an open smile instead of a closed smile). Nevertheless, the response rates for this reposted profile are nearly identical to the original profile.

variation, every woman has similar birth dates across the three types of profiles.

The height is set at 167-168 centimeters (approximately average for women in Russia), the weight is 56-57 kg. Each woman states in her profile that she is single and does not have children but may decide to have them in the future.

The dating profile also indicates that she is looking for a partner for marriage and/or a romantic relationship. It is common for users on dating sites to have multiple reasons for using the platform, so it is important not to give the impression that the profile woman is solely focused on marriage and appears "desperate." In fact, 63% of men in the sample report using the dating site for multiple purposes, listing at least one more purpose besides looking for a marital partner.<sup>19</sup>

No additional information is provided.

## 2.3 Experimental Procedure

The profiles were created between September 19 and October 27, 2022 (See Table 2). This period coincided with rapid developments in the course of the war, which included military setbacks for Russia, annexation of territories in the south-east of Ukraine, and the so-called partial mobilization.<sup>20</sup>

**Table 2** – Dates of posting profiles.

Region \ Type	"Neutral"	"Pro"	"Anti"	"Benchmark"
Moscow	24 Oct 2022	17 Oct 2022	7 Oct 2022	27 Oct 2022
St Petersburg	3 Oct 2022	14 Oct 2022	19 Sept 2022	10 Oct 2022
Sverdlovskaya Obl	20 Sept 2022	6 Oct 2022	10 Oct 2022	14 Oct 2022

**Measuring dating success of experimental profiles.** The main results are based on an exogenous subsample of daters. For each experimental profile, I ran-

<sup>19</sup>Cohabitation is common among the 18 to 45 age group. According to Rosstat’s All-Russian Population Census in 2010, 54% of men in this age range reported being married or cohabiting, with one out of five not officially married to their partner (see [https://rosstat.gov.ru/free\\_doc/new\\_site/perepis2010/croc/perepis\\_itogi1612.htm](https://rosstat.gov.ru/free_doc/new_site/perepis2010/croc/perepis_itogi1612.htm) in Russian). As concerns about the reliability of the 2020 Census persist, data from 2010 continues to be utilized. These percentages are further supported by the Russian Longitudinal Monitoring Survey, RLMS-HSE wave data from 2022 ( <https://rlms-hse.cpc.unc.edu>, <https://www.hse.ru/org/hse/rlms>).

<sup>20</sup>After the lull of summer vacations and as the Russian army suffered several defeats in south-east Ukraine in September, public interest towards the war began to rise. According to Yandex, the largest and most popular search engine in Russia, the number of inquiries with the word “war” increased from about 4 million searches per week at the end of August to approximately 5 million weekly searches in mid-September. The partial mobilization was announced on September 21. During that week the number of weekly searches peaked at 11.7 million. By the end of the experiment it plateaued at approximately 6 million. Note that in Russia it is illegal to call the invasion of Ukraine “war”, the accepted term is “special military operation”. Nevertheless, according to Yandex, the maximum number of weekly searches for “military operation” over the same time period was 240 thousand.

domly liked 250 male users in the corresponding geographic location. The primary measure of attractiveness is the proportion of positive responses (mutual "likes") in this sample - the fraction of these male users who also liked the corresponding female profile and/or sent a message to her.

Most users (over 80%) do not have a paid (premium) subscription and are unable to see which other profiles liked theirs; they are only able to see if their own profile has been viewed. Therefore, their response is unlikely to be prompted by a "like" from an experimental profile; they simply happen to like / not like her profile.

The selected men were between the ages of 18 and 45, seeking a marital partner, and recently active online. The fictitious female profile did not like all profiles she viewed, but randomly chose three out of four profiles.

The set of active dating site users is fairly constant at each geographic location over this time period. Therefore, some users were liked by more than one fictitious profile, and others by more than two or three. Overall, there are 2,260 unique users among the 3,000 liked men for the four types of profiles, including those of the "Benchmark" Woman 4.

Alternatively, the dating success of an experimental profile can be measured by evaluating the proportion of users who liked it out of those who viewed it. However, the views may not be completely random and could be influenced by user decisions on which profile to view, as well as by the dating site's algorithm.<sup>21</sup> This algorithm attempts to match users based on their preferences and characteristics using an unknown method.

The analysis using the sample of all viewers is valid only if viewership is not influenced by the type of political signal sent by the experimental profiles. The validity of this assumption is tested in Online Appendix Section 2, and the results suggest that there may be some biases in views. Nevertheless, Online Appendix Section 2 also presents an analysis of the differences in positive response rates by profile type using the sample of all viewers for completeness.

The fictitious profiles were kept active for ten days after creation. The women were passive all this time. Every day the data on the number of views, messages and "likes" were collected for each profile.<sup>22</sup> These data are readily available as the dating site provides aggregate user statistics on the user's main profile page.

After day ten, all data were collected, and the fictitious profiles deleted. Figure A.2 in the Appendix shows the number of male profiles liked and the number of mutual "likes" in each region and for every type of female profile over time.

The initial number of liked male users is 250 for each profile and this number decreases over time. This is due to the users leaving the dating site as they find

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<sup>21</sup>Dating site users have the option to browse profiles, where they can view a snapshot including the person's name, age, and photo. Users may click on a profile for more details, and the viewership metric is calculated based on these clicks.

<sup>22</sup>The graphs in Figure OA.2 in the Online Appendix plot these data for every profile over the ten-day period.

**Table 3** – Number of remaining liked users and the number of mutual "likes" on day ten for each woman and the type of profile.

<b>Region:</b>	<b>Type:</b>	<b>"Neutral"</b>	<b>"Pro"</b>	<b>"Anti"</b>	<b>Benchmark</b>
<b>Moscow</b>	Woman:	Woman 1	Woman 2	Woman 3	Woman 4
	Remaining liked users:	217	222	235	229
	Mutual "likes":	103	80	74	88
<b>St Petersburg</b>	Woman:	Woman 3	Woman 1	Woman 2	Woman 4
	Remaining liked users:	233	234	237	230
	Mutual "likes":	115	101	91	102
<b>Sverdlovskaya Obl</b>	Woman:	Woman 2	Woman 3	Woman 1	Woman 4
	Remaining liked users:	239	244	239	243
	Mutual "likes":	68	92	105	92

mates or get disappointed with the experience. The fastest attrition is in Moscow, while the set of users in Sverdlovskaya oblast is the most stable out of the three regions.

Table 3 displays the number of remaining liked users by day ten for each woman/type of profile, as well as the final number of positive responses or mutual "likes".

Mutual "likes" are recorded as the total number of positive responses from users and can fall into one of three categories: 1) a "like" in return with no message, 2) a "like" in return accompanied by a message, and 3) message only. The third category is the least frequent (9% of positive responses on average). The remaining responses are roughly equally split between the first and second categories.

## 2.4 Ethical Considerations

Correspondence studies have raised ethical concerns due to the involvement of participants who are unable to give their consent before joining the experiment and do not receive compensation for their time. Consequently, some researchers opt to carry out experimental studies on online daters' preferences in controlled laboratory settings rather than within real-world environments.<sup>23</sup>

Political views regarding the war in Ukraine are a highly sensitive subject for Russian citizens, who are often reluctant to express their opinions, especially if those opinions do not align with the official position. According to the independent survey company Russian Field, over 90% of people refuse to participate in opinion polls on the so-called special military operation. While it would be possible in theory to ask real daters to evaluate hypothetical profiles with pro- and anti-war signals, this approach could introduce response bias into the analysis, such as demand characteristics and social desirability bias. Moreover, recruiting participants for the study is also likely to pose a significant challenge.

<sup>23</sup>For example, Easton and Holbein (2021) and Low (2024).

Thus, I conduct this study in the field. I follow Neyt et al. (2019) and Neyt et al. (2022) and do not interact with the dating site users to minimize the inconvenience for them and to prevent further loss of time and effort on their part in search of a dating partner.<sup>24</sup><sup>25</sup>

### 3 Experiment: Results

Before starting the analysis, Subsection 3.1 discusses the expected differences in response rates to the three types of profiles: "Neutral", "Pro", and "Anti".

Next, Subsection 3.2 outlines a problem found with the initial experimental design as a result of the initial review of the data and proposes an approach to address it.

In Subsection 3.3, individual-level data is used to examine the impact of the experimental profile's political views signal and the characteristics of dating site users on the probability of receiving a positive response from these users. The comparison of proportions of positive responses for the three main profile types using aggregate data is presented in Appendix C.

One of the paper's goals is to examine whether the experimental evidence can provide additional insights into support for the war in Ukraine among men aged 18 to 45 in major urban areas by comparing it with survey data. Section 5 provides an overview of survey data, focusing specifically on the opinions of men aged 18 to 45 from large urban areas. It is important to assess whether the sample of experimental participants accurately represents this demographic subset. Subsection 3.3 demonstrates a significant mismatch in age distribution among members of this dating platform compared to that of the subset of the Russian population with these characteristics and presents both unadjusted and adjusted results to address this discrepancy.

#### 3.1 Hypothesis

How should the response rates to profiles signaling political views differ from those of the non-signaling profiles?

Figure 1 illustrates that the sets of potential daters for the two types of profiles, "Neutral" and with a specific trait such as political views, are the same. For each type of profile, the set of all potential daters includes two subsets: those who like the trait and those who do not. The rest do not have a strong preference for or against the trait that would affect their dating decisions.

If the same online dater can like multiple profiles without having to choose, then all daters give "likes" to the non-signaling "Neutral" profile. Profile signaling a specific

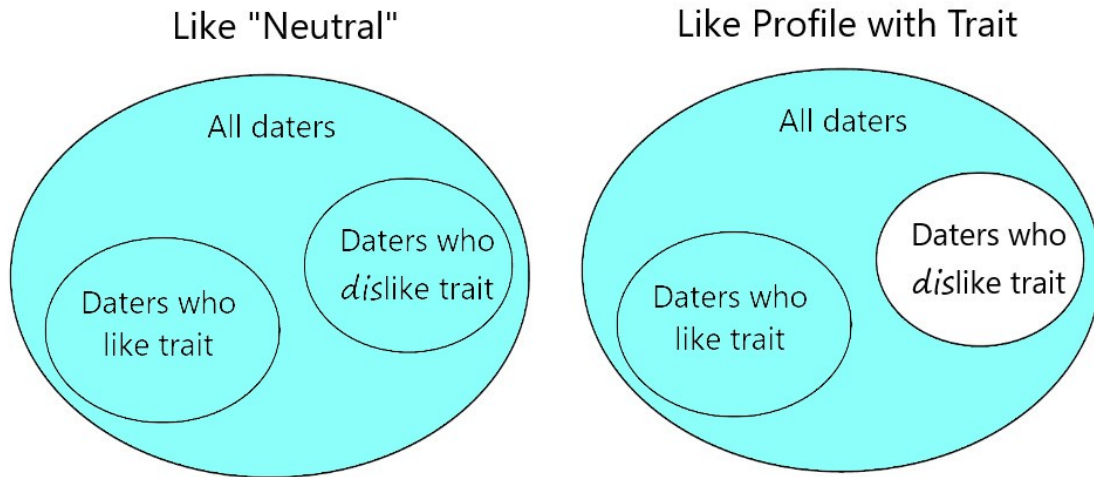
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<sup>24</sup>The practice rounds revealed that this behavior is very common for the female dating site users: they rarely give "likes" or send messages to the male users even in response to male "likes" and messages.

<sup>25</sup>The author is affiliated with a university in Russia and could not obtain ethical approval or publicize this research within Russia for safety reasons.

trait (such as political views) is liked by users who do not dislike this trait.

**Figure 1** – Sets of individuals with preferences for specific trait in a potential partner: the blue color indicates those who would like each profile if "likes" are costless.



Thus, when the costs of liking multiple profiles are very low or negligible, we would expect the response rates to profiles signaling political views (i.e., "Pro" or "Anti") to be lower compared to the response rates for non-signaling profiles (i.e., "Neutral"). This difference in response rates would approximate the share of users who do not like profiles with a particular trait - political signal.<sup>26</sup>

This hypothesis is based on two assumptions. First, it assumes that the costs of liking profiles are close to zero. Second, it assumes that the sets of daters with strong preferences for particular political views or their opposites are large enough to result in a statistically significant difference in response rates.

**Costs of liking a dating profile.** The actual costs of liking a profile are close to zero, as users face no restrictions on the number of profiles they can view and like. However, users may consider the expected future time and effort required for developing further communications when initially approaching dating profiles.

The assumption of negligible first contact costs is reasonable, particularly for male users of dating sites. Through experimenting with male profiles, I found that the response rates from women on the dating site were close to zero. On average, there were less than five likes for every 250 attempts to initiate contact by the experimental profiles. Therefore, the expected time and effort investment for developing further communication for each "like" given by a male user is minimal.

<sup>26</sup>Figure 1 does not specify the trait, and this relationship between response rates may hold for any type of trait signaling, not just political views. The trait in question must be important for the choice of a romantic partner, and preferences for this trait must differ within the population of daters (e.g., religion or ethnicity, but not physical attractiveness). I am unaware of any experimental studies that have explored these relationships for other traits and online dating success. Studies typically compare responses to profiles with different traits, rather than those with and without information regarding traits.



Negligible initial contact costs and the resulting lower response rates to political views signaling profiles imply that individuals who withhold this information may receive more responses in online dating.

Klofstad et al. (2012) studied political views and online dating in the US, analyzing nearly 3000 dating profiles. They found that only 14% of these profiles mentioned an interest in politics. For comparison, Religion/Spirituality was mentioned by slightly over 20% of respondents, while the most popular interest was Movies/Videos (just under 80%). The authors conclude that online daters might refrain from disclosing their political views initially to avoid turning away potential, particularly short-term, partners. However, they may consider politics as a factor when selecting a long-term partner from the available candidates.<sup>27</sup>

**The sizes of sets of male daters** with political views that are strong enough to affect the initial contact decisions on the dating site may not be large enough to lead to statistically significant differences in response rates between profiles that signal their political preferences and those that do not.

Studies by Klofstad et al. (2012) and Huber and Malhotra (2017) show that similarity in political views is much more important for choosing a long-term romantic partner than for initial contact decisions. All dating site users in the sample indicated their interest in finding a marital partner. However, they may also have short-term relationship goals that they may or may not choose to disclose. These goals could also influence their decisions when initiating contact.

Overall, the hypothesis is that including any political views on a dating profile results in response rates that are not higher than those for profiles without any mention of political views.

### 3.2 Additional profiles and approach to address issue with initial experimental design

An initial examination of the data, specifically a comparison of the proportions of positive responses (or mutual “likes”) for each profile type in the three experimental regions, revealed a potential problem with the experimental design. While the details are discussed in the Appendix B, the problem and the proposed approach to address it are described in this section.

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<sup>27</sup>Dating site users in Russia may have an additional reason for not reporting their political views on their dating profiles. It is highly uncommon for individuals to include their political preferences in an online dating profile on the site used for the experiment, but a few choose to do so. During the experiment, I came across individual profiles that displayed these signals in the photos they posted, profile names, or self-descriptions. Some of these profiles openly supported the war, while others indicated their anti-war stance more subtly. This indicates that discussing politics in the online dating scene in Russia was not taboo in the Fall of 2022, and a small number of individuals incorporated their political views on the Ukraine conflict as part of their strategy to find a compatible partner.

Specifically, comparisons of response rates to the main profile types relative to the “Benchmark” Woman 4 profile, which is the same in all regions, suggest that men in Sverdlovskaya oblast may not find Woman 2 as attractive as men in Moscow and Saint Petersburg do.

This undermines the assumption necessary for identification. Recall that the analysis relies on the assumption that men in each of these three regions hold comparable assessments of these women’s attractiveness. Under this assumption, if each woman is posted as “Neutral” in each region, any differences in average response rates from men in different regions would be due solely to regional differences in dating site users’ activity and not to differences in tastes for this woman’s appearance. If the assumption holds, the analysis can be conducted as if each woman was posted as three different profile types in the same geographic location, and any regional differences in activity levels can be averaged out through the inclusion of regional controls.

Woman 2 is posted as “Neutral” in Sverdlovskaya oblast. If men there do not find her as attractive as men in Moscow and Saint Petersburg do, the results may be biased. The relative attractiveness of the “Neutral” women could be underestimated, since Woman 2 does not signal political views in Sverdlovskaya oblast.

To confirm the potential problem with this assumption, I reposted Woman 2 as “Neutral” in Sverdlovskaya Oblast and in Moscow, and collected data on the response rates to these additional profiles. The profiles were posted, respectively, on October 29 and November 13, 2022.<sup>28</sup>

The analysis of the proportions of positive responses for these additional profiles relative to those for the “Benchmark” Woman 4 profile, the details of which are provided in the Appendix B, suggests that dating site users in Sverdlovskaya Oblast on average have different preferences for the appearance of Woman 2 compared to the dating site users in the other two regions.

**Why do men in Sverdlovskaya Oblast appear to have different preferences for the looks of Woman 2, but similar preferences for the looks of other women?** The answer is not readily available. One possibility could be that Woman 2 is the only blonde among the four women whose photos were used to create the profiles. This hypothesis is explored and rejected in the Online Appendix Section 3.

Ethnic or cultural differences are also unlikely to play a role. According to the Rosstat’s All-Russian Population Census 2010, the population of the three target regions is very ethnically homogeneous. In Moscow, over 93% of respondents who listed their ethnicity consider themselves to be Slavic. This figure is 95% for Saint Petersburg and 92% for Sverdlovskaya oblast.<sup>29</sup>

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<sup>28</sup>The response rate to the reposted Woman 2 profile in Sverdlovskaya oblast is very similar to the response rate to the original Woman 2 profile in that region, which suggests stability in dating site users’ preferences and activity levels.

<sup>29</sup>See [https://rosstat.gov.ru/free\\_doc/new\\_site/perepis2010/croc/perepis\\_itogi1612.htm](https://rosstat.gov.ru/free_doc/new_site/perepis2010/croc/perepis_itogi1612.htm) in Russian. The latest 2020 data is considered to be unreliable and is not used by researchers.

The regression analysis presented in Section 3.3 suggests a possible explanation involving a combination of two factors. First, it is the older individuals that are less responsive to Woman 2 in all regions. Second, while the average response rates of men to the experimental profiles in Sverdlovskaya oblast are similar to those in Moscow, suggesting similar levels of dating site activity overall, in Sverdlovskaya oblast the younger men on average are less responsive to the experimental profiles.<sup>30</sup>

The latter does not appear to be the case for Saint Petersburg. The average response rates to all profiles in Saint Petersburg consistently exceed those in Moscow, a difference that remains robust after adjusting for differences in the age distribution of men in the experimental sample compared to the general population, or when analyzing younger and older groups separately. This suggests that compared to the dating site users in Moscow, those in Saint Petersburg on average have higher levels of dating site activity, but not different preferences.

If this proposed explanation is correct, then on average men in Saint Petersburg should appear to find Woman 2 just as attractive as do men in Moscow.

**Proposed approach to address the problem.** Ideally, the observations of "Neutral" Woman 2 posted in Sverdlovskaya oblast would be replaced with those of her as "Neutral" in both Moscow and Saint Petersburg, with the observations for Saint Petersburg properly adjusted to account for a higher level of user activity compared to Sverdlovskaya oblast. This would allow for comparison of the responses to her being posted as "Pro" and "Anti" in these cities against the proper baseline.

Unfortunately, posting Woman 2 as "Neutral" in Saint Petersburg was not a viable option, given that she had already been posted as "Neutral" multiple times in two locations and there was some user flow between the two capital cities (Moscow and Saint Petersburg). Doing so would have risked detection and introduced potential bias into the data.

Thus, in what follows, I present the results using all observations for the "Neutral" Woman 2 in both Moscow and Sverdlovskaya Oblast, for both the original and the additional profiles, as the primary specification.

In an additional specification, I replace the observations from "Neutral" Woman 2's posting in Sverdlovskaya oblast with those from her being posted in Moscow.

If men in Saint Petersburg exhibit dating decision patterns similar to those of men in Sverdlovskaya oblast, apart from their higher average levels of activity, then the

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<sup>30</sup>Consider the results in Table 5. Adjusting for the difference in age distribution between men in the experimental sample and men aged 18 to 45 in these three regions of Russia makes the experimental sample younger on average. When the adjustment for the age distribution difference is applied, the estimated coefficient on Woman 2 changes from being negative and significant in the unadjusted specification to positive and significant. For the estimated coefficient on Sverdlovskaya oblast, the adjustment makes it negative and significant.

The regression analysis of dating site users by age groups indicates that men under 32 years old, regardless of location, are equally likely to approach Woman 2 as the other women. Dating site users 37 and older on average are less likely to reach out to Woman 2 compared to the other women, regardless of their geographic region.

former estimates would more accurately reflect the effect of signaling political views on the probability of being approached on the dating site.

Conversely, if these patterns are similar to those of men in Moscow, excluding the higher average levels of activity, then the latter estimates would more closely reflect the true relationship.

As discussed earlier when examining potential reasons why men in Sverdlovskaya Oblast appear to find Woman 2 less attractive than do men in Moscow, it is more likely that men in Saint Petersburg on average behave as though they share similar preferences for the appearance of Woman 2 with the men in Moscow. Additional arguments supporting this are provided in Appendix D.

Nonetheless, the estimates for both specifications are presented and discussed. The estimates from the primary specification, which uses all observations for the "Neutral" Woman 2 in both Moscow and Sverdlovskaya oblast, represent a lower bound. The estimates from the additional specification, which effectively replaces the observations from "Neutral" Woman 2's postings in Sverdlovskaya oblast with those of her in Moscow, may be treated as an upper bound.

Importantly, the key findings are robust to the choice of specification. The signs of the estimated coefficients remain consistent, while their significance levels tend to be higher when the observations for "Neutral" Woman 2 in Sverdlovskaya oblast are excluded.

### 3.3 Individual Level Data: Regression Analysis

I have collected profile data of men that were liked by and/or had viewed the experimental profiles as well as their responses. The full sample is limited to individuals aged 18-45 who have expressed interest in finding a potential marital partner.

The data is available at Mendeley Data repository.<sup>31</sup>

This section presents the data and evaluates the impact of various characteristics, especially the political views indicated by the fictitious profile, on the likelihood that an individual would attempt to connect with a specific type of profile. This section's analysis is based on the main sample of users who were liked by the experimental profiles. Section 2 in the Online Appendix presents the results for the sample of users who viewed the experimental profiles.

The results for the comparison of proportions of positive responses in Appendix C utilize aggregate data and account for the fact that not all user profiles remained active until day ten, when the response data were collected. This information is available in the aggregate data, as the dating site provides the number of users liked by each profile on a daily basis. Unfortunately, I do not have individual-level information regarding which specific users did not survive until day ten.

The main sample includes all users who were liked by the experimental profiles

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<sup>31</sup>Beloborodova, Anna (2024), "Data from the experimental project 'Love or politics? Political views regarding the war in Ukraine in an online dating experiment' by Anna Beloborodova ", Mendeley Data, V3, doi: 10.17632/629wv9zm8p.3

on day one of the experiment. For users who did survive until day ten, there is information on whether they viewed, liked, and/or messaged the experimental profiles that liked them. However, for users who did not survive until day ten, their decisions are not observed in the data. Instead, they are indistinguishable from users who did not view and/or respond to the profiles in question.

The probability of a user profile surviving until day ten is unlikely to be influenced by the type of profile that liked them or the user’s response (or lack thereof) to the experimental profile. Thus, I expect that the response rates in the main sample of liked users would be biased downwards equally for all types of profiles.

One question addressed in this paper is how the experimental results compare to survey findings on expressed support for the war in Ukraine. In Section 5, I describe survey data with particular focus on the views of men aged 18 to 45 from major urban areas. However, it is important to consider whether the sample of experimental subjects, who are users of this dating site, accurately represents this subpopulation. An influential factor that has emerged affecting views and behaviors is age. As all dating site users report their age, I analyze whether the age distribution of the experimental sample matches that of the target population and present both unadjusted and adjusted results due to mismatched distributions.

**Data description:** The full sample consists of 3,245 unique male users between the ages of 18 and 45 who expressed their interest in getting married and were either liked by and/or viewed the experimental profiles. Information is available for these users regarding their age, geographical location, the number of photos they posted, whether they have a paid (premium) subscription, and the type(s) of relationship(s) they are interested in.

All the men in the sample indicated that they were seeking a partner for marriage. However, it is feasible for individuals to use dating sites for various reasons, which can be detailed in their profiles. Along with searching for marriage, some men also conveyed an interest in finding a romantic partner, engaging in non-committed relationships, and/or meeting friends or travel companions. 37% of the dating site users did not specify any additional purposes besides seeking a marital partner on the dating site.

The users can also chose to provide other information about themselves, such as their level of education, income, height, weight, etc. Descriptive statistics for the full sample are in Table A.1 in the Appendix.<sup>32</sup>

2,844 unique users remain in the full sample after excluding the "Benchmark" profiles.

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<sup>32</sup>In Sverdlovskaya oblast, men generally have more incomplete profiles with fewer completed fields than in Moscow and Saint Petersburg, and are less likely to report additional purposes for being on the dating site (except for non-committed relationships). When providing information about themselves, men from Sverdlovskaya oblast typically report lower levels of education on average, indicate middle-level incomes more frequently, and are more likely to state that they have children. Men in Saint Petersburg fall between those from Moscow and Sverdlovskaya oblast with regards to their reported characteristics.

The main sample of users that were liked by the experimental profiles contains 2,185 unique users. The descriptives are not affected except for the number of observations. Additionally, Table A.2 in the Appendix presents summary statistics for the online daters in the main sample of liked users who responded positively to the experimental profiles by type of profile.

**Representativeness of the sample in terms of age groups.** Age is an important factor that affects both the expressed and (potentially) actionable views concerning the war in Ukraine. When comparing the decisions of experimental subjects to the expressed views of the target population, it is essential to assess the sample’s representativeness across different age groups.

Table 4 shows the age distribution of the experimental subjects in column I, with data from Rosstat’s All-Russian Census of Population for 2010 presented in columns II and III.<sup>33</sup> Column II displays the age distribution of men in the three experimental regions, while Column III shows this distribution for unmarried men only.

**Table 4** – Age distribution: Experimental sample versus Rosstat

Age groups	I. Experiment: main sample	II. Rosstat: all men in 3 regions	III. Rosstat: unmarried men in 3 regions
<b>18 - 19</b>	0.007	0.058	0.119
<b>20 – 24</b>	0.018	0.197	0.336
<b>25 – 29</b>	0.063	0.203	0.214
<b>30 – 34</b>	0.205	0.188	0.135
<b>35 – 39</b>	0.335	0.173	0.102
<b>40 – 45</b>	0.372	0.182	0.094

Source: Rosstat’s All-Russian Census of Population 2010, in Russian [https://rosstat.gov.ru/free\\_doc/new\\_site/perepis2010/croc/perepis\\_itogi1612.htm](https://rosstat.gov.ru/free_doc/new_site/perepis2010/croc/perepis_itogi1612.htm). Calculations by the author.

The experimental sample is heavily skewed towards older individuals, indicating that this dating site is popular among individuals in their thirties and forties. In many countries, including Russia, Tinder dominates the dating app market for younger users. Despite Tinder limiting its app’s functionality for Russian users by the time of the experiment, there has not been a significant migration of younger users to alternative platforms overall or to this specific dating site.

If the experiment results are to be compared with survey evidence, they should be adjusted to more accurately reflect the age distribution of the sample population.

In what follows, I create two sets of weights for the experimental data. The first set consists of adjusted weights so that the age distribution of experimental subjects

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<sup>33</sup>Sociologists create representative survey weights using 2010 census data, as the latest 2020 data is considered unreliable.

matches that of all men in the three experimental regions, while the second set is designed to match the age distribution of unmarried men in these regions.

I present both adjusted and unadjusted results.

**Model:** The equation 1 below is estimated using linear probability model.

$$\ell_{ij} = \alpha_j d_{ij} + \mathbf{X}'_{ij} \beta + \varepsilon_{ij} \quad (1)$$

The dependent variable  $\ell_{ij}$  is binary, taking the value of one if the male dater  $i$  positively responded to the experimental profile of type  $j \in \{\text{"Neutral"}, \text{"Pro"}, \text{"Anti"}\}$  by giving it a "like" and/or sending a message, and zero otherwise.  $d_{ij}$  is an indicator variable for whether user  $i$  was liked by profile type  $j$ ,  $\mathbf{X}'_{ij}$  is a vector of user and profile characteristics, and  $\varepsilon_{ij}$  is a random error term. The key parameter of interest is  $\alpha_j$  with  $j \in \{\text{"Pro"}, \text{"Anti"}\}$  and "Neutral" being the omitted category.

**Results: full sample without age controls.** Table 5 presents the results.

First, consider the unadjusted estimates in columns I and II.

Signaling either pro-war or anti-war sentiment by the experimental profiles reduces the probability of receiving positive responses from male dating site users. The effects are statistically significant only in the specification that includes a control for the "Neutral" Woman 2 in Sverdlovskaya oblast, which effectively replaces the observations of the "Neutral" Woman 2 in Sverdlovskaya oblast with those of her being posted in Moscow. These estimates in column II can be viewed as providing an upper bound on the true effect.

The probability of a positive response for the experimental profiles signaling pro-war sentiment is up to 5.8 percentage points lower compared to the "Neutral" type of profiles. This reduction represents a 14.8% decrease from the "Neutral" profiles' 39.1% probability of a positive response. The penalty for the anti-war signal is up to 6.6 percentage points or 16.9%.

The adjusted estimates in columns III through VI show remarkably different results. In columns III and IV, the weights are constructed to match the age distribution of the experimental subjects with that of all men in the three experimental regions. In columns V and VI, the weights are constructed to align with the age distribution of unmarried men in these regions.

When weights are applied, the penalty for the anti-war signal disappears. The adjusted estimates indicate that the probability of a positive response to the pro-war profiles is at least 7.2 percentage points lower compared to the neutral baseline. This reduction represents a nearly 20% decrease from the 36.1% probability of a positive response to the "Neutral" profiles and is highly significant at the 1% level.

The explanation is due to age being an important factor behind differences in users' behavior towards experimental profile types. Next, I present evidence of its significance.

**Table 5** – Probability of positive response, main sample of liked users, LPM.

	Not adjusted for age distribution		Adjusted for age distribution, all men		Adjusted for age distribution, single men	
	I.	II. +Wom. 2 in Sverd. obl.	III.	IV. +Wom. 2 in Sverd. obl.	V.	VI. +Wom. 2 in Sverd. obl.
Number of observations	2689	2689	2689	2689	2689	2689
"Pro" type	-0.029 (0.025)	-0.058** (0.027)	-0.072*** (0.023)	-0.087*** (0.028)	-0.102*** (0.024)	-0.105*** (0.028)
"Anti" type	-0.036 (0.025)	-0.066** (0.027)	-0.005 (0.023)	-0.019 (0.027)	0.004 (0.023)	0.002 (0.027)
Woman 2	-0.078*** (0.025)	-0.049* (0.027)	0.016 (0.023)	0.030 (0.028)	0.076*** (0.024)	0.078*** (0.028)
Woman 3	-0.028 (0.025)	-0.028 (0.025)	-0.030 (0.022)	-0.029 (0.024)	-0.011 (0.021)	-0.011 (0.023)
St. Petersburg	0.078*** (0.024)	0.086*** (0.024)	0.089*** (0.023)	0.100*** (0.025)	0.097*** (0.023)	0.110*** (0.025)
Sverdlovskaya obl.	0.026 (0.026)	0.072** (0.032)	-0.040* (0.023)	-0.005 (0.030)	-0.077*** (0.022)	-0.052* (0.029)
Woman 2 in Sverd. obl.		-0.152*** (0.048)		-0.103** (0.046)		-0.062 (0.044)
Premium (paid) acc.	0.032 (0.027)	0.026 (0.024)	0.055** (0.026)	0.058** (0.026)	0.045* (0.027)	0.052* (0.027)
Many photos (>4)	-0.002 (0.025)	-0.004 (0.023)	0.021 (0.025)	0.016 (0.025)	0.052** (0.026)	0.041 (0.026)
Constant - "Neutral"	0.389*** (0.027)	0.391*** (0.026)	0.361*** (0.025)	0.356*** (0.027)	0.334*** (0.026)	0.322*** (0.027)

Notes: 1) The data set contains 2,185 unique users. 2) Neutral baseline is Woman 1 in Moscow. 3) Estimates in columns I, III, and V are derived from GLM that was weighted to account for Woman 2 being posted as the "Neutral" type three times, unlike the other Women + profile types which were only posted once. Note that the unadjusted results do not differ significantly. Estimates in columns III and V are additionally weighted to account for differences in the age distribution. Estimates in column II are from OLS. 4) In columns III and IV, the weights are constructed to match the age distribution of experimental subjects with that of all men in the three experimental regions. In columns V and VI, the weights are constructed to align with the age distribution of unmarried men in these regions. 5) Robust standard errors are in parentheses. 6) \*, \*\*, and \*\*\* indicate significance at respectively 10%, 5%, and 1% levels.

**Results: age polarization.** When analyzing the impact of users' age on their behavior towards different experimental profile types, I do not apply weights based on age. These weights are used solely to enable comparison of experimental evidence on actionable views with survey evidence on expressed views within the subsample of Russia's population represented by the male dating site users.

The main results are presented in Table 6.

The results show a clear difference by age, with a noticeable contrast emerging around 33-34 years of age. Younger male online daters are significantly less inclined (between 12.4 and 17.9 percentage points or 28 - 40% relative to the neutral baseline) to respond to the "Pro" type of female profiles. Meanwhile, individuals in the 34 to 45-year-old age group are not as likely to respond to the anti-war signaling profiles (up to 6.9 percentage points or 18.4%). There is no evidence of polarization within



**Table 6** – Probability of positive response, main sample of liked users: Age controls and age groups. LPM.

	Full sample, men 34 to 45 as baseline		18 to 33 year old		34 to 45 year old	
	I.	II. +Wom. 2 in Sverd. obl.	III.	IV. +Wom. 2 in Sverd. obl.	V.	VI. +Wom. 2 in Sverd. obl.
Number of observations	2689	2689	629	629	2060	2060
"Pro" type	0.003 (0.029)	-0.031 (0.030)	<b>-0.124**</b> (0.052)	<b>-0.179***</b> (0.059)	0.002 (0.029)	-0.022 (0.031)
"Anti" type	<b>-0.044</b> (0.028)	<b>-0.078***</b> (0.029)	-0.013 (0.053)	-0.064 (0.058)	<b>-0.045</b> (0.028)	<b>-0.069**</b> (0.030)
Men 18 to 33 and "Pro"	<b>-0.138**</b> (0.059)	<b>-0.122**</b> (0.052)				
Men 18 to 33 and "Anti"	0.026 (0.060)	0.046 (0.053)				
Men 18 to 33	0.065 (0.043)	0.047 (0.033)				
Woman 2	-0.076*** (0.025)	-0.046* (0.027)	-0.079 (0.053)	-0.025 (0.059)	-0.077*** (0.028)	-0.054* (0.031)
Woman 3	-0.026 (0.025)	-0.026 (0.025)	-0.087* (0.052)	-0.084 (0.052)	-0.007 (0.029)	-0.008 (0.029)
St. Petersburg	0.078*** (0.024)	0.087*** (0.024)	0.134** (0.052)	0.145*** (0.052)	0.062** (0.027)	0.070** (0.027)
Sverdlovskaya obl.	0.026 (0.026)	0.074** (0.032)	-0.012 (0.051)	0.066 (0.065)	0.037 (0.030)	0.076** (0.037)
Woman 2 in Sverd. obl.		-0.157*** (0.048)		-0.252** (0.100)		-0.128** (0.054)
Premium (paid) acc.	0.031 (0.027)	0.025 (0.024)	0.081 (0.056)	0.073 (0.050)	0.020 (0.030)	0.015 (0.028)
Many photos (>4)	-0.004 (0.025)	-0.005 (0.023)	-0.021 (0.056)	-0.014 (0.052)	0.002 (0.027)	-0.003 (0.025)
Constant	0.373*** (0.029)	0.380*** (0.027)	0.443*** (0.056)	0.447*** (0.055)	0.371*** (0.031)	0.374*** (0.030)
- "Neutral"						

Notes: 1) The data set contains 2,185 unique users. 2) Neutral baseline is Woman 1 in Moscow. 3) Estimates in columns I, III, and V are derived from GLM that was weighted to account for Woman 2 being posted as the "Neutral" type three times, unlike the other Women + profile types which were only posted once. Note that the unadjusted results do not differ significantly. Estimates in columns II, IV, and VI are from OLS. 4) Robust standard errors are in parentheses. 5) \*, \*\*, and \*\*\* indicate significance at respectively 10%, 5%, and 1% levels.

these age groups, as men in each group are less likely to respond to only one profile type signaling political views.<sup>34</sup>

This explains why reweighing the observations to align the age distribution of dating site users with that of men aged 18-45 in Russia significantly impacts the results. In the dating site sample, older users are overrepresented compared to the

<sup>34</sup>The results for younger dating site users remain consistent for any age cut-off up to and including 33 years old, with significant negative penalties observed only for the pro-war signaling profiles. For older dating site users, the negative sign of the estimate for the anti-war signaling profiles persists across varying cutoff ages, but the statistical significance is less robust.

general population of men aged 18-45 in Russia. Because they are less likely to approach the anti-war signaling profiles, their influence on decision making in the full sample is substantial and leads to negative estimates of the coefficients for the "Anti" profile types. However, when weights based on age are applied, the impact of older users is appropriately adjusted, resulting in minor and insignificant penalties for the anti-war profiles. Similarly, with weights, the impact of younger users' decisions is amplified, leading to larger and strongly significant penalties for the pro-war profile types in both specifications.

**Results: income and education.** The survey evidence (presented in Section 5) also suggests that there may be polarization in opinions on the war based on levels of education and income. As some users choose to provide information on their education and income in their profiles, it is possible to test whether these user characteristics affect the probability of positively responding to different profile types. However, some dating site users may not be truthful when providing this information as they want to appear more attractive.<sup>35</sup> Also, selection issues are to be expected as users decide whether to report this information about themselves.

In the Appendix, Tables A.3 and A.4 show the estimates of model specifications allowing for heterogeneous effects based on education and income levels.

The results adjusted for the age distribution suggest that dating site users with university education tend to exhibit stronger anti-war sentiment. In contrast, high school graduates demonstrate the most polarized views, showing the strongest reductions in the probability of responding to both types of political profiles. Interestingly, men with vocational education appear more inclined to engage with "Pro" profiles compared to the "Neutral" ones.

In terms of income, both pro- and anti-war profile types face significant penalties among middle and low-income dating site users. In contrast, there is some evidence of pro-war sentiment among the high-income group.

## 4 Experiment: Inferring political views of the on-line daters

The second objective of this paper is to determine the extent of pro-war and anti-war sentiment among online dating site users based on their "likes" for specific profile types.

The inference relies on three assumptions. Firstly, it assumes that an individual's decision to approach a particular type of profile, rather than another, indicates their preference for the former over the latter. Secondly, it assumes that these preferences are indicative of the individual's own political views. Finally, it assumes that positive

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<sup>35</sup>Dating site users may lie about their characteristics, including their age, to appear more attractive to potential partners. For a review of common behavior patterns of online dating site users, refer to Abramova et al. (2016).

responses to all types of profiles are equally costless, and the users of the dating site face no limitations on the number of profiles they can like. As previously discussed in Subsection 3.1, this is reasonable in the context of online dating, especially for male users of the dating site.

The hypothesis about the expected differences in response rates to profile types signaling political views relative to those for the non-signaling "Neutral" profile types presented in Subsection 3.1 guides this inference.

Recall Figure 1. The profile signaling a particular trait (political views) is liked by all users except for those who dislike the trait. Thus, given the assumption that user preferences reflect their own political views, we can infer that users who do not like profiles signaling pro-war sentiment are likely to hold anti-war political views. Similarly, those who do not like anti-war signaling profiles are likely to hold pro-war political views.

## 4.1 Inference

**Users of the dating site.** The findings presented in columns I and II of Table 5 suggest that up to 14.8% of dating site users have anti-war views, while up to 16.9% support the war.

Note that in both model specifications, the estimates for the "Pro" and "Anti" coefficients are similar in size. The discrepancy between them is not statistically significant, though a much larger sample size would be needed to avoid type-two error. Therefore, the percentage of pro-war individuals does not appear to be larger than the percentage of individuals with anti-war views.

The results in Table 6 reveal that the proportions of pro- and anti-war sentiment among dating site users vary by age group. For users younger than 34, between 28% and 40% display an anti-war sentiment, while no detectable pro-war sentiment is present. In contrast, in the older age group, up to 18.4% of male daters exhibit a pro-war sentiment, with no evidence of anti-war sentiment among them.

**Adjusting for the age distribution.** The age distribution of dating site users is heavily skewed towards individuals in their late thirties and forties. Therefore, to compare the experimental findings for the subpopulation of urban men between the ages of 18 to 45 with those of the surveys, it is necessary to adjust for the age distribution differences between these two populations.

The weighted estimates from Section 3.3 suggest that any pro-war sentiment among the dating site users has negligible impact on their initial contact decisions. The inferred share of dating site users with anti-war views that influence their decisions is between 19.9% and 32.6%.

As discussed in later sections of this paper, this contrasts with the survey evidence on expressed opinions. Survey data indicate that within the subpopulation of men in this age group from large urban areas, pro-war sentiment is more prevalent.

## 4.2 Evaluating underlying assumptions.

The inference of political views from online daters' dating choices is based on several assumptions. Next, I explore the potential implications for the estimated shares of daters with specific views if these assumptions are not valid.

**Online daters' choices reveal their preferences.** This assumption is vulnerable in several cases.

First, during the initial contact stage, certain users may adopt a blanket strategy of response, automatically expressing interest in all female profiles without considering the information provided.<sup>36</sup> This behavior could make these users appear indistinguishable from individuals with a neutral position, leading to an underestimation of the proportion of online users who hold specific political views.

Second, as previously mentioned, multiple studies on online dating have documented that men tend to be less selective than women with respect to various traits, including political views. This can also lead to an underestimation of the proportion of online users who hold specific political views. Furthermore, the analysis by age groups suggests that men in older age groups (closer to 40 and older) are less selective when it comes to the political signals sent by dating profiles compared to their younger counterparts. Consequently, the result for the share of older daters with political views, most likely pro-war, may be more downward biased.

Third, it is possible that some individuals may choose not to approach the anti-war profiles even if they like them. The high levels of repression of anti-war sentiment and dissent in Russia since the start of the conflict may have made people cautious about openly displaying their opposition to the war. This can make individuals who express their anti-war views appear reckless, and associating with them could be perceived as dangerous. As a result, the estimated proportion of users with strong pro-war views would likely be biased upward. Conversely, if the anti-war signal is not strong enough, it may lead to an underestimation of this proportion. Unfortunately, it is not feasible to correct for these biases within the current experimental framework.

Fourth, I assume that the costs of responding positively to any number of profiles are negligibly low. If that is not the case, individuals with strong political views would likely be more inclined to engage with profiles that signal similar political views rather than the "Neutral" profiles. As a result, the estimated proportions of both pro-war and anti-war online daters may be underestimated.

**Online daters prefer to date others with similar political views.** Multiple studies on assortative mating based on political views and affective polarization in dating decisions support this assumption.<sup>37</sup> On average, individuals are more in-

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<sup>36</sup>One user liked and sent a general greeting message to a "Pro" profile, only to message a bit later with an anti-war statement and to say that he liked and messaged her automatically by mistake.

<sup>37</sup>See Alford et al. (2011), Watson et al. (2004), Iyengar et al. (2018), Huber and Malhotra (2017), Nicholson et al. (2016), and Easton and Holbein (2021).

clined to approach those with similar political views and avoid those with differing perspectives.

Klar and Krupnikov (2016) and Klar et al. (2018) raise an objection to interpreting the findings in affective polarization studies as evidence of a dislike of nonpartisans. These scholars argue that within the context of US politics, measures of affective polarization may inaccurately conflate dislike for members of a political party with disdain for partisanship as a whole. If this applies to Russian politics, individuals with "Pro" and "Anti" profiles might face repercussions for expressing their political views, regardless of their actual content. This could lead to an overestimation of the proportions of online users holding pro- or anti-war political perspectives.

The results in Section 3.3 suggest that a user's age strongly influences their decision to approach a particular type of profile. Specifically, younger users are less likely to approach the "Pro" types, but not the "Anti" types. Conversely, older users show an opposite pattern, being less likely to approach the "Anti" types but not the "Pro" types. Thus, it is different users who reject the experimental profiles with political signals and it is unlikely that Klar and Krupnikov (2016) and Klar et al. (2018)'s critique is relevant in this context.<sup>38</sup>

## 5 Survey Evidence

Actions may speak louder than words, but it is easier to acquire and investigate words. What does polling data tell us about attitudes toward war in Russia? Does the experiment uncover any additional or differing information about these attitudes?

The previous sections presented the results of the experiment, indicating that political views on the war significantly influence whether daters approach potential partners. There is also notable age polarization, with younger individuals less likely to approach only those with pro-war views and older individuals less likely to approach only those signaling their anti-war position.

This section will review survey evidence, while the next one will assess whether the experimental findings align with or diverge from the expressed attitudes towards war in Russia, particularly within the subset of the population represented by the experimental subjects.

When reviewing the evidence and comparing it to the experimental findings, it is important to note that the experimental subjects may not be representative of the population of Russia. They are men aged 18 to 45 from urban areas, most likely single and seeking a relationship on an online dating platform. Whenever possible, the survey data is used to compare the opinions of a subgroup with these specific

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<sup>38</sup>Easton and Holbein (2021) address this concern in their study of affective polarization in the US dating market by having different versions of the same experiment and comparing the results. In one version, the fictitious dating profiles self-signal their political views, while in the other version the experimenters deliver the signal on an earlier screen. They find that the results of these two experiments are indistinguishable and conclude that in the dating market there is no additional penalty given to individuals who are particularly vocal about their political preferences.

characteristics to those of the general population in Russia.

I do not rely on data collected by pro-government survey agencies like VCIOM and FOM. The data in this section was collected by Russian Field (RF). One major advantage of the RF data is that they share individual-level data for most of their surveys, which are analyzed in this paper.<sup>39</sup>

Section 1 in the Online Appendix compares the opinions expressed in the RF polls to those from the Levada Center (designated a "foreign agent" by the Russian government). Overall, respondents in the Levada Center surveys are more likely to express support for the war compared to those in the RF surveys.

RF has conducted multiple surveys to assess Russians' opinions on the conflict in Ukraine. Specifically, I examine data from three surveys. Table 7 describes these surveys and lists the main questions with response options at the bottom. Table A.6 in the Appendix provides descriptive statistics for all of these surveys.

The first is the country-level survey "Military Operation in Ukraine: Attitudes of Russians," which consists of multiple waves. For this paper, I analyze data from four specific waves: 8 through 11. It is important to note that wave 11 was conducted a few months after the experiment. However, as far as I know, it is the only wave and survey that includes questions on family status and presence of children.

Approximately 1,600 individuals from a representative sample of Russia's population were interviewed over the phone in each wave. One notable aspect of the RF phone surveys is that they also report the rate of response. For instance, for wave 8 they completed just under 6% of the interviews they initiated, i.e., to obtain their final sample of 1,609 individuals, they had to make 27,167 calls.

The second survey is "Travel to Europe without visas. What do residents of capitals think about a possible ban on issuing Schengen visas (to Russians)?" 2,518 adults from Moscow and Saint Petersburg were interviewed over the phone. Given that a significant portion of the sample consists of Muscovites and Peterburgians, who may have similar opinions to individuals in large urban areas, this subset is the main focus of the analysis.

The level of support for the military operation was assessed with two questions. The first question asked, "Do you support the military operation of the Russian military on the territory of Ukraine?" Response options included "Definitely yes," "Mostly yes," "Mostly no," and "Definitely no." The second question was, "If you had the opportunity to return to the past and cancel the decision to start the military operation, would you do this or not?" Response options were "Definitely would not have canceled," "Probably would not have canceled," "Probably would have canceled," and "Definitely would have canceled." Response options to both questions also included "Do not know / Refuse to answer".

Both questions were asked in waves 8 and 11 of the country-level survey and in the Moscow and Saint Petersburg survey. For each survey, Table A.5 in the Appendix shows the respective distributions of the responses to the "Cancel" question by the respondents' answers to the question of whether they support the military operation

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<sup>39</sup>See <https://russianfield.com/>, only in Russian.

**Table 7** – Description of the Russian Field Surveys.

Wave	Dates	Location	Method	Support ?	Cancel ?	Necessary ?	Age groups	Additional questions
<b>I. Country level: "Military Operation in Ukraine: Attitudes of Russians"</b>								
8	July 28-31, 2022	Russia	Phone	Yes	Yes	No	18-29, 30-44, 45+	Income
9	Sept. 29 - Oct. 1, 2022	Russia	Phone	No	Yes	No	18-34, 35-44, 45+	Income; education
10	Nov. 29 - Dec. 5, 2022	Russia	Phone	No	Yes	No	18-29, 30-44, 45+	Income; education
11	Jan. 31 - Feb. 6, 2023	Russia	Phone	Yes	Yes	No	18-29, 30-44, 45+	Income; education; marital status; presence of adult and/or underage children
<b>II. Local level: "Travel to Europe without visas. What do residents of capitals think about a possible ban on issuing Schengen visas (to Russians)?"</b>								
1	Sept. 2-6, 2022	Moscow and Saint Petersburg	Phone	Yes	Yes	No	18-29, 30-44, 45+	Income; education
<b>III. Local level: 1) "'Special operation' and Mobilization: Attitudes of Muscovites" and 2) "What do Muscovites Think About the 'Special Military Operation in Ukraine'"</b>								
1)	Nov. 4-5, 2022	Moscow	Street poll	No	No	Yes	18-34, 35-44, 45+	Income; education
2)	Nov. 18-19, 2022	Moscow	Street poll	No	No	Yes	18-34, 35-44, 45+	Income; education

**Support question: "Do you support the military operation of the Russian military on the territory of Ukraine?"**

Response categories: "Definitely yes", "Mostly yes", "Mostly no", "Definitely no".

**Cancel question: "If you had the opportunity to return to the past and cancel the decision to start the military operation, would you do this or not?"**

Response categories: "Definitely would not have canceled", "Probably would not have canceled", "Probably would have canceled", "Definitely would have canceled".

**Necessary question: "What is your opinion, was the special military operation in Ukraine necessary or should it not have been started?"**

Response categories: "Yes, necessary", "No, should not have been started".

Source: Russian Field, <https://russianfield.com/svorussia>, in Russian.

in Ukraine.<sup>40</sup>

<sup>40</sup>Individuals who indicate that they "definitely" or "mostly" support the military operation seem to be somewhat hesitant when asked if they would have canceled the decision to start it if given a chance to go back in time. This hesitancy is more apparent in the "mostly" support group and may reflect a tendency to go with the flow or a sense of no way back. For the country-level survey, only the results for wave 8 are presented due to a significant time gap between wave 11 and the experiment. The findings for wave 11 are similar to those of wave 8.

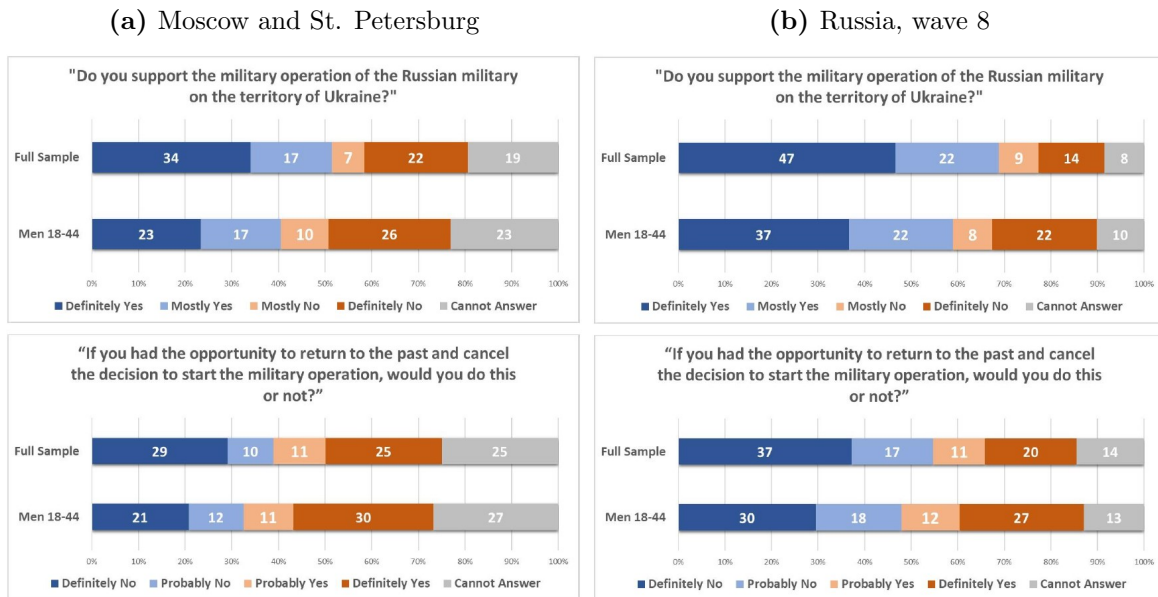
Finally, RF also conducted a series of street interviews with Moscow residents. However, it is important to note that these data are not directly comparable to other studies conducted by RF. First, the method is different, street interviews rather than over the phone. Second, the question asked was also different: "What is your opinion, was the special military operation in Ukraine necessary or should it not have been started?" The response options were "Yes, necessary" and "No, should not have been started".

I analyze the pooled data from two such street surveys conducted in Moscow. Each survey included 1000 individuals, representative samples of Moscow residents. Since it is highly unlikely that the same individuals were interviewed more than once across these two surveys, pooling the datasets allows for a larger overall sample size.

## 5.1 Survey data analysis

Figure 2 illustrates response distributions for two types of support questions from two RF surveys, comparing all respondents to men aged 18 to 44. The graphs confirm that individuals from Moscow and Saint Petersburg and younger men are less likely to express support and more likely to oppose the military operation.

**Figure 2** – Russian Field Surveys: Distributions of answers



Next, I further explore how support for the war varies based on individual characteristics of respondents in RF surveys. The experiment was carried out in Moscow, Saint Petersburg, and Sverdlovskaya oblast. Since residents of Moscow, Saint Petersburg and other major Russian cities tend to express lower support and higher opposition to the war, the analysis focuses on surveys carried out in Moscow and Saint Petersburg. However it is important to note that according to RF data, respondents from the Urals (of which Sverdlovskaya oblast is a part) tend to express



more supportive views and less oppositional stances towards the military operation in Ukraine compared to respondents from most other Russian regions.<sup>41</sup>

Note that most Russian men under the age of fifty could be subject to mobilization in the Fall of 2022, with few exceptions such as serious health problems or being fathers of four or more underage children. However, men in Moscow and Saint Petersburg faced a lower risk of mobilization compared to the rest of the country, including Sverdlovskaya oblast, due to political pressures on the government to maintain stability in the capital cities.

The results for Moscow and Saint Petersburg surveys are shown in Table 8. Additionally, Tables A.7 and A.8 in the Appendix present findings from country-level regressions, demonstrating similar patterns to those observed in Moscow and Saint Petersburg data.

The dependent variable is binary, with a value of one indicating support for the so-called military operation (combining definite and mostly answers in the country poll), and zero otherwise. Respondents who were unable or refused to answer the support question are excluded from the analysis. Combining definite and mostly types of answers in the country poll enables comparison with responses from Moscow street surveys. The linear probability model is chosen for its ease of interpretation.

Overall, the probability of expressing support for the war increases with age and income of the respondents, and is lower among women and university educated. Figure A.4 in the Appendix further explores these relationships in the Levada Center and the RF country-level surveys.

Recall that the experimental data was also analyzed to evaluate whether reported incomes and education levels influenced the likelihood of experimental subjects responding positively to different profile types. However, these results should be treated with caution due to the potential for selection bias and the tendency of dating site users to favorably misrepresent information about themselves.

The estimates in Table A.3 reveal a more nuanced picture regarding the relationship between political views and educational attainment. The experimental findings suggest that university-educated dating site users' choices are indicative of their anti-war sentiment, which aligns with survey evidence. High school graduates exhibit the most polarized attitudes, showing the largest decreases in responding to both political profile types. Notably, those with vocational (but not those with high school) education display more pronounced pro-war sentiment.

The results in Table A.4 suggest a greater tendency towards pro-war sentiment among high-income dating site users compared to their low and middle-income counterparts. Some of the differences from survey evidence may be due to low-income

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<sup>41</sup>Russian Field, "Operation 'Federation': how do people in different parts of Russia perceive the events in Ukraine" (in Russian), <https://russianfield.com/region>. There have been no separate polls conducted in Sverdlovskaya oblast. Regressions using country-level data control for the respondent being from one of the three experimental regions. The results suggest a significantly lower probability of expressing support among the respondents from Moscow, Saint Petersburg, and Sverdlovskaya oblast, ranging between 5.5% and 22.7%, depending on specification and sample (see Tables A.7 and A.8 in the Appendix).

**Table 8** – Probability of expressing support for the special military operation in Ukraine, LPM, Russian Field surveys in Moscow and St. Petersburg

	All			Ages 18 to 44			Ages 18 to 44, Men only		
	Moscow and St. Petersburg Support: Yes	Cancel: No	Moscow street poll Neces.: Yes	Moscow and St. Petersburg Support: Yes	Cancel: No	Moscow street poll Neces.: Yes	Moscow and St. Petersburg Support: Yes	Cancel: No	Moscow street poll Neces.: Yes
Number of obs.	1846	1776	1634	1613	1568	683	854	820	333
Constant	0.549*** (0.026)	0.452*** (0.027)	0.619*** (0.032)	0.557*** (0.023)	0.449*** (0.023)	0.659*** (0.040)	0.544*** (0.027)	0.434*** (0.027)	0.619*** (0.049)
St. Petersburg	-0.024 (0.024)	-0.030 (0.026)		-0.043 (0.026)	-0.011 (0.026)		-0.064* (0.037)	-0.015 (0.037)	
Woman	-0.063*** (0.022)	-0.024 (0.024)	-0.042* (0.023)	-0.070*** (0.025)	-0.058** (0.024)	-0.087** (0.037)			
Ages 18-29	-0.180*** (0.039)	-0.159*** (0.038)		-0.194*** (0.028)	-0.184*** (0.027)		-0.144*** (0.038)	-0.169*** (0.037)	
Ages 18-34			-0.032 (0.038)			-0.023 (0.038)			-0.007 (0.053)
Ages 45+	0.206*** (0.025)	0.146*** (0.026)	0.141*** (0.030)						
Income Low	-0.057 (0.035)	-0.021 (0.037)	-0.047 (0.031)	-0.118*** (0.045)	-0.145*** (0.042)	-0.093 (0.059)	-0.171** (0.066)	-0.206*** (0.058)	-0.168** (0.084)
Income High	0.046* (0.027)	0.015 (0.029)	0.133*** (0.032)	0.011 (0.030)	0.042 (0.030)	0.114** (0.049)	0.048 (0.039)	0.095** (0.041)	0.164** (0.066)
Education HS / some university	0.086** (0.035)	0.059 (0.038)	-0.043 (0.034)	0.115*** (0.034)	0.134*** (0.034)	-0.100* (0.052)	0.107** (0.044)	0.147*** (0.045)	-0.056 (0.074)
Education Vocational	0.042 (0.033)	0.083** (0.036)	0.017 (0.026)	0.173*** (0.043)	0.220*** (0.043)	0.014 (0.044)	0.196*** (0.056)	0.240*** (0.055)	0.085 (0.061)

Notes: 1) Nonresponses are dropped from the analysis. 2) Support question: "Do you support the military operation of the Russian military on the territory of Ukraine?", Cancel question: "If you had the opportunity to return to the past and cancel the decision to start the military operation, would you do this or not?", Necessary question: "What is your opinion, was the special military operation in Ukraine necessary or should it not have been started?" 3) For Moscow and St. Petersburg the estimates are from the GLM with sampling weights, for the Moscow street poll the estimates are from the OLS (no weights are provided). 4) The baseline omitted category for age groups is 30-44 or 35-44, for income it is Middle Income, and for education it is University/college or higher. 2) Robust standard errors are in parentheses. 3) \*, \*\*, and \*\*\* indicate significance at respectively 10%, 5%, and 1% levels.

dating site users either not providing income information or misrepresenting their income levels as middle-income.

## 5.2 Specific subsample versus the general population

The experimental subjects are men aged 18 to 45 from urban areas, most likely single and seeking a relationship on an online dating platform. This subsection summarizes and discusses how the expressed opinions of individuals with these characteristics may (or may not) differ from those of the general population.

**Younger men from large urban areas.** Survey evidence shows that younger men from large urban areas in Russia are less likely to express support for the so-called military operation than the overall population (see Figure 2).

Note that in the Moscow and Saint Petersburg survey, a higher percentage of men between the ages of 18 and 44 expressed a desire to cancel the decision to initiate the military operation if given the opportunity, compared to those who would not (41% versus 33%). For other polls and types of questions, even within this subgroup, more

respondents express support for the operation than those who oppose it.<sup>42</sup>

Polling evidence suggests that men are somewhat more likely than women to express support for the war.

**Single versus married and other characteristics.** The experimental subjects were selected from male users of the online dating site who indicated that they were single and seeking a potential marital partner. However, for obvious reasons, it is impossible to verify the accuracy of these claims and what percentage of men in the experimental sample are actually not single.

Does marital status influence the expressed opinions about the war in Ukraine? The only survey that included questions about respondents' family status is wave 11 of the Russian Field country-level survey. The results of the analysis can be found in Tables A.7 and A.8 in the Appendix.

Marital status does not influence men's likelihood of expressing support for the war. However, married women are more likely to indicate that they would not have canceled the so-called military operation compared to unmarried women in the full sample. Among respondents aged 18 to 44, marital status has no effect on expressed views for either men or women.<sup>43</sup>

The most striking results are observed for **the effect of having children**, which is similar for men and women and does not depend on whether the children are underage or grown up (see the last columns of Tables A.7 and A.8 in the Appendix). Having children of any age significantly increases the probability of expressing support for the war. Moreover, when controlling for having children, the relationship between age and expressed support is no longer significant among respondents under the age of 45! To my knowledge, this study is the first to report the presence of this effect.

Why do individuals with children tend to express more support for the war compared to those without children? Although this question is beyond the scope of the paper, I have tried to delve into it a bit further.

One possible explanation is that these individuals may be more cautious or simply busier, and therefore less engaged in political intricacies. If true, they might be inclined to choose less definitive answers such as "mostly yes" instead of "definitely yes," and "probably would not have canceled" instead of "definitely would not have canceled." In the regressions presented in the paper, these responses are grouped into a single category. When I tested this hypothesis using multinomial regression, I found that it does not hold true; individuals with children are actually more likely to choose definite versions of the answers.

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<sup>42</sup>In the Appendix, Figure A.5 presents distributions for the Moscow street polls. Respondents were asked whether the special military operation in Ukraine was necessary or should not have been started, with "Yes" or "No" response options. The differences in responses between the full sample and the subsample of men aged 18-44 are minimal: 58% answered "Yes" in the full sample while 56% of men aged 18-44 did so. For the "No" answer, these numbers were 28% and 31%, respectively.

<sup>43</sup>Survey experiments conducted by Easton and Holbein (2021) on affective polarization in dating included participants who were not single. The authors found that the results did not vary based on the relationship status of the individual participants.

This suggests that other factors may be at play in explaining why individuals with children tend to express more support for the war. However, one can only hypothesize about these factors without concrete evidence. Recent studies (see Kerry et al. (2022)) suggest that having children may lead to individuals becoming more socially conservative. As the Russian government aligns itself with conservative values, this could potentially account for greater support for the government and consequently the war among parents.

Some of the experimental subjects have children and chose to provide this information about themselves on the dating site. Out of the 2,185 unique dating site users in the main sample, only 1,215 (55.6%) chose to reveal information about whether they have children. Of those who provided this information, only 23% reported having children. This number is not adjusted for the skewed age distribution of men in the sample, which skews towards older ages. When the age distribution of the sample is adjusted to match that of men between 18 and 45 in Russia, this percentage becomes 16%. With further adjustment to match the age distribution of unmarried men only, the number decreases to 10%.<sup>44</sup>

Does having children influence the decision of experimental subjects to approach different types of experimental profiles? Based on the survey evidence, having children should reduce the likelihood of experimental subjects responding positively to the anti-war views signaling profiles. Experimental data analysis does not support this hypothesis, as having children does not have a significant effect on the overall probability of a positive response or based on profile type in the entire sample or across different age groups of experimental subjects.<sup>45</sup>

Unfortunately, there is no clear explanation for why having children does not affect the decisions of the experimental subjects in this study while it affects expressed opinions in polls. If conservative values are at play, online daters in Russia may differ from the general population by being less conservative. It is also possible that online daters in Russia may not differ significantly from the general population and could be equally conservative.<sup>46</sup>

The quality of the experimental data on participants having children may be compromised by issues such as selection bias and misreporting. Thus, while there is evidence that having children affects the expressed opinions regarding the war, there

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<sup>44</sup>Rosstat does not report statistics on men having children. Therefore, for comparison, I compiled data from the RLMS - HSE 2022 wave (source: "Russia Longitudinal Monitoring survey, RLMS-HSE", <https://rlms-hse.cpc.unc.edu>, <https://www.hse.ru/org/hse/rlms>, calculations by the author). In the RLMS-HSE data, 50% of men aged 18 to 45 have children. Among single men, only 11% have children. This may indicate that men who disclose information about having children on dating sites are likely to be single.

<sup>45</sup>The results are available upon request.

<sup>46</sup>Dating sites are popular in Russia. According to surveys, between one fifth and one third of Russians have used dating sites. There is no data on observable differences among those individuals and those who have never used dating sites, except that the users must be among those who use the internet (83% of Russians in 2022 according to the Levada Center, in Russian, <https://www.levada.ru/2022/05/20/internet-sotsialnye-seti-i-blokirovki/>). The specific dating site used for the experiment has an average of only 30% of its users who are under the age of 34, despite younger individuals being more likely to use dating sites.

is no definitive way to determine if it has a similar or any effect on the actionable (in dating) views of individuals.

## 6 Discussion: Experiment versus Surveys

The experiment offers valuable insights into the attitudes toward war held by a specific subset of the Russian population: men aged 18 to 45 from large urban areas who are likely to be single and seeking a serious relationship through online dating.

Survey evidence shows that gender, age, and living in a big city are important factors in determining attitudes towards the war. Marital status does not seem to have an effect, while the differences in opinions between online dating site users and the general population are unknown. Thus, when comparing the insights gained from the experiment with survey evidence, the focus is on men in this age group from large urban areas, regardless of other characteristics.

The experiment's results indicate that political views on the war have a significant influence on whether daters approach potential partners. There is also noticeable age polarization, with younger individuals being less likely to approach only those with pro-war views and older individuals being less likely to approach only those signaling their anti-war position.

First, I compare survey and experimental evidence for the subpopulation represented by the experimental subjects. Second, I hypothesize about how the experimental results may differ when extrapolated to Russia's population.

**Subpopulation represented by experimental subjects: Surveys vs. Experiment.** First, the experiment reveals age polarization among men aged 18 to 45. Specifically, the behavior of younger male dating site users suggests the presence of anti-war, but not pro-war views, while the opposite is true for the older male dating site users.

How do these findings compare to survey evidence? Younger individuals are significantly less likely to express support for the so-called special military operation. Nevertheless, according to the polls, the pro-war sentiment is also common among younger individuals. Data from the Moscow and Saint Petersburg survey shows that 23% of those aged 18 to 29 would not have canceled the decision to start the so-called special military operation, while 51% would have.

Notably, a significant share of respondents in older age groups express opposition to the war. In the same survey, among the respondents aged 30 to 44, a higher number indicated they would have canceled it compared to those who would not have (40% versus 32%). The anti-war sentiment expressed by this age group in other surveys is lower, but none of it seems to be reflected in the decisions of older experimental subjects.

Nevertheless, polling data does indicate that expressed support for the war tends to increase with age, a trend that aligns with the findings of the experiment. However,

there is stronger polarization in behavior, as expressed pro-war views of younger individuals and anti-war views of older ones are less likely to translate into actual behavior.

Second, experimental results for the full sample are compared to survey evidence. In order to enable comparison, the age distribution of the experimental sample is adjusted to make it representative of the target subsample of the Russian population.

With this adjustment, the pro-war sentiment becomes undetectable in the online dating behavior of men between 18 and 45 from the three experimental regions. However, the anti-war sentiment is strongly apparent, as between 19.9% and 32.6% of daters express their anti-war stance through their initial contact decisions. This is in contrast to survey evidence on expressed opinions, as nearly all polls show that within this population subsample, the level of support for the so-called military operation exceeds the opposition to it.

Although many people may express support for the war in surveys, this does not necessarily translate into their actual dating decisions and possibly other life choices. The conclusion is that many individuals' expressed views may not be reflected in their actual behavior when it comes to supporting the war. In other words, a substantial part of the expressed support amounts to "cheap talk". Another explanation for the discrepancy is possible selection bias in surveys, where individuals opposing the war may be less likely to respond.

Therefore, the results of the experiment confirm that caution should be exercised when interpreting survey data in non-democratic states as it may not accurately reflect individuals' actual behavior or attitudes. While the trends in the survey data may provide insights, as seen in the relationship between age and support for the war, it appears that the level of support is exaggerated, especially the level of support manifested in behavior.

**From a specific subpopulation to the general Russian population.** Survey data suggests that people under 45 in large urban areas are more likely to oppose the war than the general population. Men are also more inclined to express support for the war compared to women. In addition, residents of large urban areas tend to show lower levels of support and higher levels of opposition to the war.

The impact of age appears to be the most significant factor in these trends. According to Rosstat census data, more than 50% of Russia's population is aged over 45. Therefore, if actionable views at least partly align with these trends in expressed opinions, we may observe more manifestation of pro-war sentiment and less anti-war behavior among the overall population in Russia.<sup>47</sup>

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<sup>47</sup>Note that in 2022, most men in Russia aged 50 or older were not eligible for mobilization. The maximum age for mobilization has since been increased by five years.

## 7 Conclusion

In this paper, I conducted a correspondence experiment to study the effects of declared political views regarding the war in Ukraine on the probability of receiving a positive response from potential male daters on a large online dating site in Russia. The results reveal substantial discounts for both supporting the war and expressing the opposition to it.

Polarization over the war is manifest in the daters' choices of which profiles to engage with, with age emerging as the most significant dividing factor. Younger male daters under 34 are far less likely (28% to 40%) to approach pro-war profiles, while those aged between 34 and 45 are significantly less likely (up to 18.4%) to approach anti-war signaling profiles. Within these age groups, there is no evidence of polarization, as individuals in each group are significantly less likely to approach only one type of profile signaling political views.

I also propose a simple framework for inferring the political views of male online daters from their choices. The results indicate that up to 14.8% of male online daters hold strong pro-war views, leading them to not pursue women who express anti-war and pro-Ukraine sentiments. Similarly, up to 16.9% of men on a dating site would not consider dating a pro-war "patriotic" woman, revealing their anti-war stance. These two groups are statistically similar in size. However, when the age distribution of the experimental sample is adjusted to match that of the subpopulation of Russian men aged 18 to 45 years from the three experimental regions, only profiles signaling pro-war views are significantly penalized. In the adjusted sample, between 19.9% and 32.6% would not consider dating a woman with pro-war views. This finding challenges the survey evidence that suggests the predominant support for the war among a subpopulation of Russian society similar in characteristics to experimental subjects.

This paper highlights the need to be cautious when analyzing survey data from non-democratic regimes, as it may not truly represent individuals' behaviors or beliefs regarding politically sensitive questions. Trends in survey data may be informative, as seen in the relationship between age and support for the war in Russia. However, the levels, particularly as reflected in behavior, may be largely overstated.

Analysis of the survey data reveals a previously unidentified correlation between respondents' characteristics and their stated support or opposition to the so-called special military operation. Specifically, parents show a higher tendency than non-parents to strongly support the war. This correlation is not verified in the experimental data and warrants further exploration to identify the underlying factors and possible explanations. This is left for future research.

Finally, the experiment was conducted during a particularly turbulent period of the beginning of the partial mobilization campaign in the Fall of 2022. As some military-aged individuals were preparing to be sent off to the front line, others were fleeing to neighboring countries, and all had to answer the question of how much they were actually willing to sacrifice in support of the war or in order to avoid fighting in it. The ongoing conflict not only affects the situation at the front line, it may change

the views and opinions of people. The study collected data over a short period of approximately one month to limit the possibility of changes affecting the results. The findings therefore reflect the level of affective polarization regarding the war and support/opposition to it in Russia between late September and early November 2022, and may differ from results obtained at other times. This limitation applies to any study of social attitudes and political views in a society undergoing major crisis.



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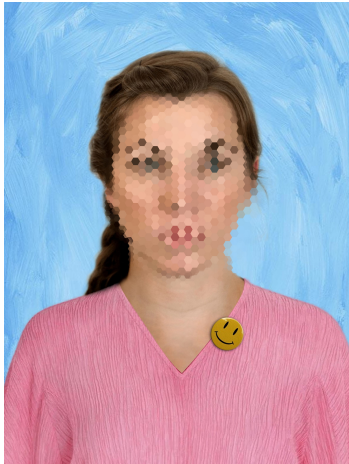
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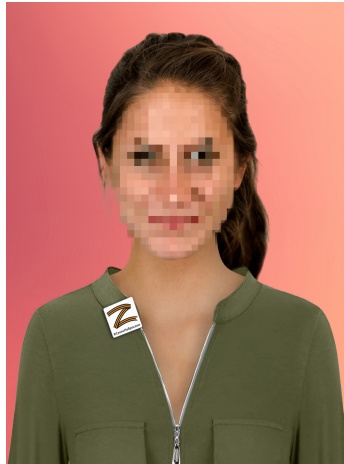
## A Appendix: Additional figures and tables

**Figure A.1** – Examples of profile photos: three different political views signaling types (“Neutral”, “Pro”, and “Anti”), three women, studio background. “Benchmark” Woman 4. All with CFD attractiveness scores.

(a) “Neutral”, Woman 1:  
CFD attract. score 4.76



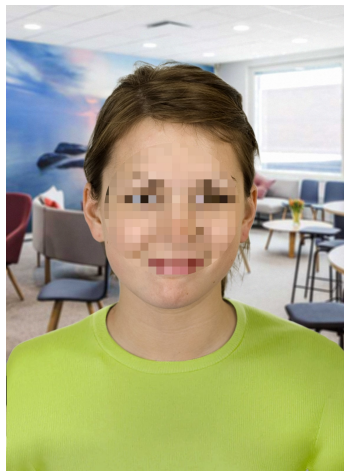
(b) “Pro”, Woman 3: CFD  
attract. score 4.69



(c) “Anti”, Woman 2: CFD  
attract. score 4.89



(d) “Benchmark”, Woman 4:  
CFD attract. score 5.09

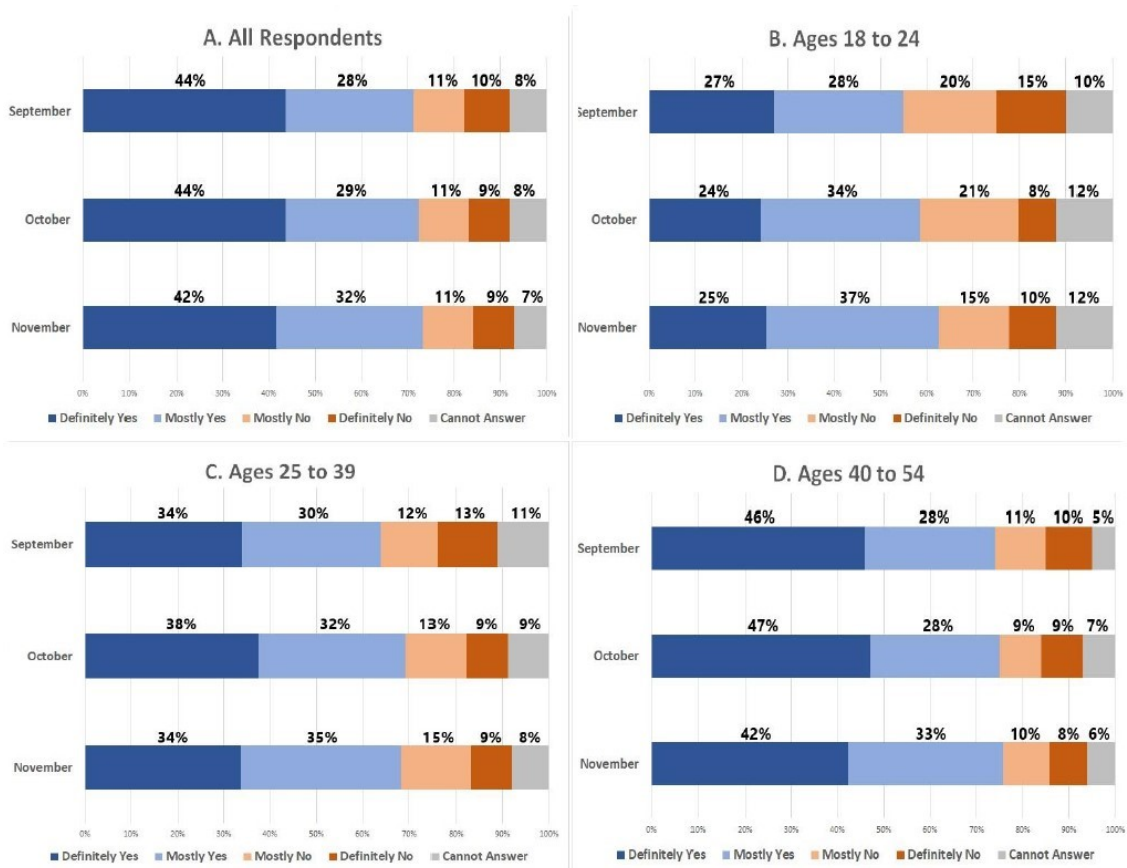


**Figure A.2** – Number of male profiles liked and number of mutual “likes” by region, all experimental profiles.



Note: As the most active users log in to the site, discover and respond to the experimental profiles within the first day or two days after their creation, mutual “likes” increase rapidly during this initial period and remain relatively stable afterwards..

**Figure A.3** – Levada Center: Distribution of answers to the “Do you support the Russian military operation in Ukraine?” question in September, October, November 2022



Source: The Levada Center, “The Conflict With Ukraine” (in Russian), three waves of the survey: September (<https://www.levada.ru/2022/09/29/konflikt-s-ukrainoj-sentyabr-2022-goda/>), October (<https://www.levada.ru/2022/10/27/konflikt-s-ukrainoj-oktyabr-2022-goda/>), and November 2022 (<https://www.levada.ru/2022/12/02/konflikt-s-ukrainoj-noyabr-2022-goda/>).

**Table A.1** – Descriptive statistics: full sample, male users between the ages 18 and 45 seeking marriage

	Full Sample	Moscow	St. Petersburg	Sverdl. obl.
<b>Number of Obs.</b>	<b>3245</b>	<b>1540</b>	<b>940</b>	<b>768</b>
<b>Yekaterinburg</b>				0.73
<b>Paid subscription (Premium)</b>	0.18	0.22	0.17	0.12
<b>Number of photos</b>	3.43 (s.e. = 4.44)	3.67 (s.e. = 4.38)	3.94 (s.e. = 5.54)	2.31 (s.e. = 2.32)
<b>Age</b>	36.74 (s.e. = 5.48)	36.72 (s.e. = 5.42)	37.01 (s.e. = 5.30)	36.43 (s.e. = 5.81)
<b>Height, cm</b>	178.56 (s.e. = 6.95) (r.r. = 77.3%)	179.36 (s.e. = 6.77) (r.r. = 82.7%)	178.23 (s.e. = 6.57) (r.r. = 78.6%)	177 (s.e. = 7.65) (r.r. = 65.0%)
<b>Weight, kg</b>	79.87 (s.e. = 11.88) (r.r. = 68.3%)	80.64 (s.e. = 11.43) (r.r. = 72.9%)	79.98 (s.e. = 11.35) (r.r. = 68.7%)	77.73 (s.e. = 13.39) (r.r. = 58.6%)
<b>Looking for:</b>				
<i>Woman's age from</i>	25.17 (s.e. = 5.36)	24.91 (s.e. = 5.35)	25.39 (s.e. = 5.28)	25.43 (s.e. = 5.47)
<i>Woman's age up to</i>	40.91 (s.e. = 9.88)	41.08 (s.e. = 10.41)	41.35 (s.e. = 10.42)	40.03 (s.e. = 7.87)
<b>Relationship type, besides marriage:</b>				
<i>Romance</i>	0.57	0.61	0.59	0.48
<i>Not committed</i>	0.21	0.20	0.21	0.22
<i>Other</i>	0.27	0.30	0.26	0.23
<b>Education</b>	r.r. = 61.2%	r.r. = 65.3%	r.r. = 64.6%	r.r. = 49.1%
<i>Highschool or some university</i>	0.13	0.09	0.14	0.19
<i>Vocational</i>	0.20	0.14	0.23	0.32
<i>University/college or higher</i>	0.67	0.77	0.63	0.50
<b>Income</b>	r.r. = 43.0%	r.r. = 45.9%	r.r. = 44.4%	r.r. = 35.7%
<i>Low</i>	0.04	0.04	0.03	0.05
<i>Middle</i>	0.56	0.50	0.60	0.65
<i>High</i>	0.40	0.46	0.36	0.30
<b>Children: None</b>	0.77 (r.r. = 57.3%)	0.79 (r.r. = 60.8%)	0.79 (r.r. = 60.4%)	0.68 (r.r. = 46.5%)

Notes: 1) s.e. stands for standard error of continuous variables. 2) r.r. is rate of response to non-mandatory questions in the questionnaire. 3) Low income category includes dating site users who answered: "There is not enough money for anything". Individuals in the Middle Income category chose "I have enough for the main expenses and recreation". High Income group includes those who answered "I can cover all expenses and have money left over".

**Table A.2** – Descriptive statistics: Liked users who positively responded to profiles by profile type

	"Neutral"	"Neutral", no Sverdl. obl.	"Pro"	"Anti"	"Benchmark"
<b>Number of Obs.</b>	<b>425</b>	<b>295</b>	<b>273</b>	<b>268</b>	<b>282</b>
<b>Moscow</b>	0.42	0.60	0.29	0.28	0.31
<b>St. Petersburg</b>	0.28	0.40	0.37	0.34	0.36
<b>Sverdl. obl.</b>	0.31	-	0.34	0.38	0.33
<b>Yekaterinburg</b>	0.24	-	0.23	0.29	0.24
<b>Paid subscription (Premium)</b>	0.17	0.18	0.18	0.22	0.22
<b>Number of photos</b>	3.64	4.11	3.58	3.56	3.44
	(s.e. = 4.30)	(s.e. = 4.71)	(s.e. = 6.36)	(s.e. = 6.10)	(s.e. = 3.81)
<b>Age</b>	37.10	37.06	37.87	36.74	37.61
	(s.e. = 5.35)	(s.e. = 5.28)	(s.e. = 5.16)	(s.e. = 5.69)	(s.e. = 5.25)
<b>Height, cm</b>	177.99	178.59	177.77	177.84	177.78
	(s.e. = 7.52)	(s.e. = 6.72)	(s.e. = 7.09)	(s.e. = 7.51)	(s.e. = 7.01)
	(r.r. = 80.7 %)	(r.r. = 85.4 %)	(r.r. = 75.5 %)	(r.r. = 74.6 %)	(r.r. = 79.1 %)
<b>Weight, kg</b>	79.28	80.23	79.22	80.29	78.57
	(s.e. = 11.81)	(s.e. = 10.86)	(s.e. = 11.90)	(s.e. = 11.78)	(s.e. = 11.84)
	(r.r. = 71.8 %)	(r.r. = 75.9 %)	(r.r. = 67.8 %)	(r.r. = 65.3 %)	(r.r. = 69.9 %)
<b>Looking for:</b>					
<i>Woman's age from</i>	26.03	25.65	25.58	25.63	25.59
	(s.e. = 5.79)	(s.e. = 5.88)	(s.e. = 5.58)	(s.e. = 5.53)	(s.e. = 5.30)
<i>Woman's age up to</i>	42.25	42.57	43.55	40.78	43.54
	(s.e. = 9.94)	(s.e. = 11.03)	(s.e. = 11.99)	(s.e. = 7.62)	(s.e. = 11.20)
<b>Relationship type:</b>					
<i>Romance</i>	0.57	0.60	0.58	0.56	0.55
<i>Not committed</i>	0.21	0.19	0.25	0.22	0.22
<i>Other</i>	0.28	0.29	0.30	0.30	0.29
<b>Education:</b>	r.r. = 63.3 %	r.r. = 65.4 %	r.r. = 59.7 %	r.r. = 57.5 %	r.r. = 58.9 %
<i>Highschool or some university</i>	0.19	0.14	0.15	0.12	0.14
<i>Vocational</i>	0.19	0.17	0.23	0.24	0.28
<i>University/college or higher</i>	0.62	0.69	0.62	0.64	0.58
<b>Income:</b>	r.r. = 47.1 %	r.r. = 48.8 %	r.r. = 45.4 %	r.r. = 38.1 %	r.r. = 46.1 %
<i>Low</i>	0.04	0.02	0.06	0.06	0.05
<i>Middle</i>	0.56	0.56	0.53	0.54	0.54
<i>High</i>	0.41	0.42	0.41	0.40	0.41
<b>Children: None</b>	0.73	0.77	0.69	0.74	0.74
	(r.r. = 60.7 %)	(r.r. = 65.1 %)	(r.r. = 57.5 %)	(r.r. = 56.7 %)	(r.r. = 56.7 %)
<b>Sent Message Blacklisted, Number of users</b>	2	2	3	1	0
<b>Sent Message Blacklisted, Number of users, All liked users</b>	2	2	8	1	1

Notes: 1) s.e. stands for standard error of continuous variables. 2) r.r. is rate of response to non-mandatory questions in the questionnaire. 3) Low income category includes dating site users who answered: "There is not enough money for anything". Individuals in the Middle Income category chose "I have enough for the main expenses and recreation". High Income group includes those who answered "I can cover all expenses and have money left over".



**Table A.3** – Probability of positive response by education, main sample of liked users. LPM, all estimates.

	Not adjusted for age distribution		Adjusted for age distribution, all men		Adjusted for age distribution, single men	
	I.	II. +Wom. 2 in Sverd. obl.	III.	IV. +Wom. 2 in Sverd. obl.	V.	VI. +Wom. 2 in Sverd. obl.
Number of observations	1619	1619	1619	1619	1619	1619
”Pro” type	-0.052 (0.039)	-0.049 (0.038)	-0.102*** (0.038)	-0.093** (0.040)	-0.136*** (0.040)	-0.121*** (0.043)
”Anti” type	-0.054 (0.039)	-0.051 (0.038)	-0.047 (0.037)	-0.039 (0.039)	-0.076** (0.038)	-0.063 (0.040)
Highschool / some univ. and ”Pro”	-0.016 (0.097)	-0.082 (0.089)	-0.174* (0.089)	-0.278*** (0.085)	-0.349*** (0.085)	-0.467*** (0.078)
Highschool / some univ. and ”Anti”	-0.083 (0.098)	-0.153* (0.091)	-0.155* (0.087)	-0.259*** (0.082)	-0.208** (0.082)	-0.324*** (0.075)
Vocational and ”Pro”	0.057 (0.079)	0.034 (0.072)	0.173** (0.070)	0.159** (0.069)	0.285*** (0.069)	0.280*** (0.068)
Vocational and ”Anti”	0.101 (0.080)	0.075 (0.074)	0.081 (0.071)	0.067 (0.069)	0.104 (0.069)	0.102 (0.067)
Highschool / some university	0.077 (0.068)	0.143** (0.055)	0.203*** (0.065)	0.307*** (0.053)	0.297*** (0.065)	0.412*** (0.050)
Vocational	-0.054 (0.056)	-0.032 (0.044)	-0.041 (0.049)	-0.031 (0.040)	-0.058 (0.048)	-0.061 (0.039)
Woman 2	-0.099*** (0.032)	-0.090*** (0.034)	-0.018 (0.031)	-0.011 (0.035)	0.039 (0.032)	0.037 (0.036)
Woman 3	-0.049 (0.032)	-0.051 (0.033)	-0.027 (0.029)	-0.028 (0.032)	0.008 (0.029)	0.010 (0.032)
St. Petersburg	0.108*** (0.030)	0.112*** (0.031)	0.115*** (0.030)	0.122*** (0.033)	0.123*** (0.032)	0.134*** (0.035)
Sverdlovskaya obl.	0.026 (0.035)	0.049 (0.044)	-0.011 (0.031)	0.014 (0.041)	-0.043 (0.030)	-0.022 (0.039)
Woman 2 in Sverd. obl.		-0.078 (0.063)		-0.075 (0.058)		-0.053 (0.055)
Premium (paid) account	0.016 (0.032)	0.019 (0.030)	0.024 (0.030)	0.040 (0.030)	0.013 (0.031)	0.030 (0.030)
Many photos (>4)	0.002 (0.029)	0.003 (0.027)	0.043 (0.030)	0.048 (0.030)	0.092*** (0.032)	0.097*** (0.033)
Constant	0.400*** (0.037)	0.386*** (0.035)	0.358*** (0.035)	0.334*** (0.036)	0.328*** (0.036)	0.301*** (0.037)
- ”Neutral”						

Notes: 1) The university-educated group is the omitted baseline category. 2) Estimates in columns I, III, and V are derived from GLM that was weighted to account for the fact that Woman 2 was posted as the ”Neutral” type three times, unlike the other Women + profile types which were only posted once. Note that the unadjusted results do not differ significantly. Estimates in columns III and V are additionally weighted to account for differences in the age distribution. Estimates in column II are from OLS. 3) Robust standard errors are in parentheses. 4) \*, \*\*, and \*\*\* indicate significance at respectively 10%, 5% and 1% levels.

**Table A.4** – Probability of positive response by income, main sample of liked users. LPM, all estimates.

	Not adjusted for age distribution		Adjusted for age distribution, all men		Adjusted for age distribution, single men	
	I.	II. +Wom. 2 in Sverd. obl.	III.	IV. +Wom. 2 in Sverd. obl.	V.	VI. +Wom. 2 in Sverd. obl.
<b>Number of observations</b>	1110	1110	1110	1110	1110	1110
<b>”Pro” type</b>	-0.076 (0.052)	-0.070 (0.054)	-0.128** (0.053)	-0.173*** (0.057)	-0.195*** (0.057)	-0.272*** (0.061)
<b>”Anti” type</b>	-0.128** (0.051)	-0.125** (0.052)	-0.121** (0.049)	-0.171*** (0.051)	-0.166*** (0.052)	-0.244*** (0.052)
<b>Income low and ”Pro”</b>	0.342 (0.213)	0.165 (0.220)	0.239 (0.250)	0.097 (0.248)	0.208 (0.296)	0.105 (0.289)
<b>Income low and ”Anti”</b>	0.288 (0.205)	0.118 (0.209)	0.138 (0.255)	0.004 (0.248)	0.098 (0.318)	0.001 (0.303)
<b>Income high and ”Pro”</b>	0.114 (0.080)	0.082 (0.075)	0.143* (0.073)	0.159 (0.071)	0.236*** (0.072)	0.266*** (0.071)
<b>Income high and ”Anti”</b>	0.077 (0.079)	0.050 (0.073)	0.050 (0.069)	0.076 (0.067)	0.093 (0.068)	0.134** (0.064)
<b>Income low</b>	-0.128 (0.149)	0.048 (0.145)	0.019 (0.177)	0.160 (0.156)	0.093 (0.202)	0.194 (0.163)
<b>Income high</b>	-0.046 (0.055)	-0.013 (0.046)	-0.061 (0.051)	-0.088** (0.042)	-0.116** (0.050)	-0.168*** (0.040)
<b>Woman 2</b>	-0.079** (0.039)	-0.063 (0.042)	0.018 (0.037)	0.062 (0.043)	0.071 (0.038)	0.143*** (0.046)
<b>Woman 3</b>	-0.048 (0.039)	-0.045 (0.040)	-0.001 (0.034)	0.004 (0.038)	0.036 (0.033)	0.050 (0.037)
<b>St. Petersburg</b>	0.098*** (0.037)	0.109*** (0.037)	0.159*** (0.037)	0.176*** (0.040)	0.225*** (0.039)	0.252*** (0.043)
<b>Sverdlovskaya obl.</b>	-0.004 (0.042)	0.031 (0.052)	-0.050 (0.036)	0.018 (0.047)	-0.067* (0.035)	0.033 (0.048)
<b>Woman 2 in Sverd. obl.</b>		-0.096 (0.077)		-0.209*** (0.070)		-0.297*** (0.066)
<b>Premium (paid) account</b>	0.005 (0.038)	0.011 (0.036)	0.020 (0.036)	0.067* (0.037)	0.013 (0.037)	0.088** (0.039)
<b>Many photos (&gt;4)</b>	-0.018 (0.036)	-0.018 (0.034)	0.002 (0.035)	0.012 (0.035)	-0.002 (0.035)	0.017 (0.035)
<b>Constant - ”Neutral”</b>	0.460*** (0.050)	0.433*** (0.047)	0.414*** (0.048)	0.408*** (0.048)	0.406*** (0.051)	0.401*** (0.050)

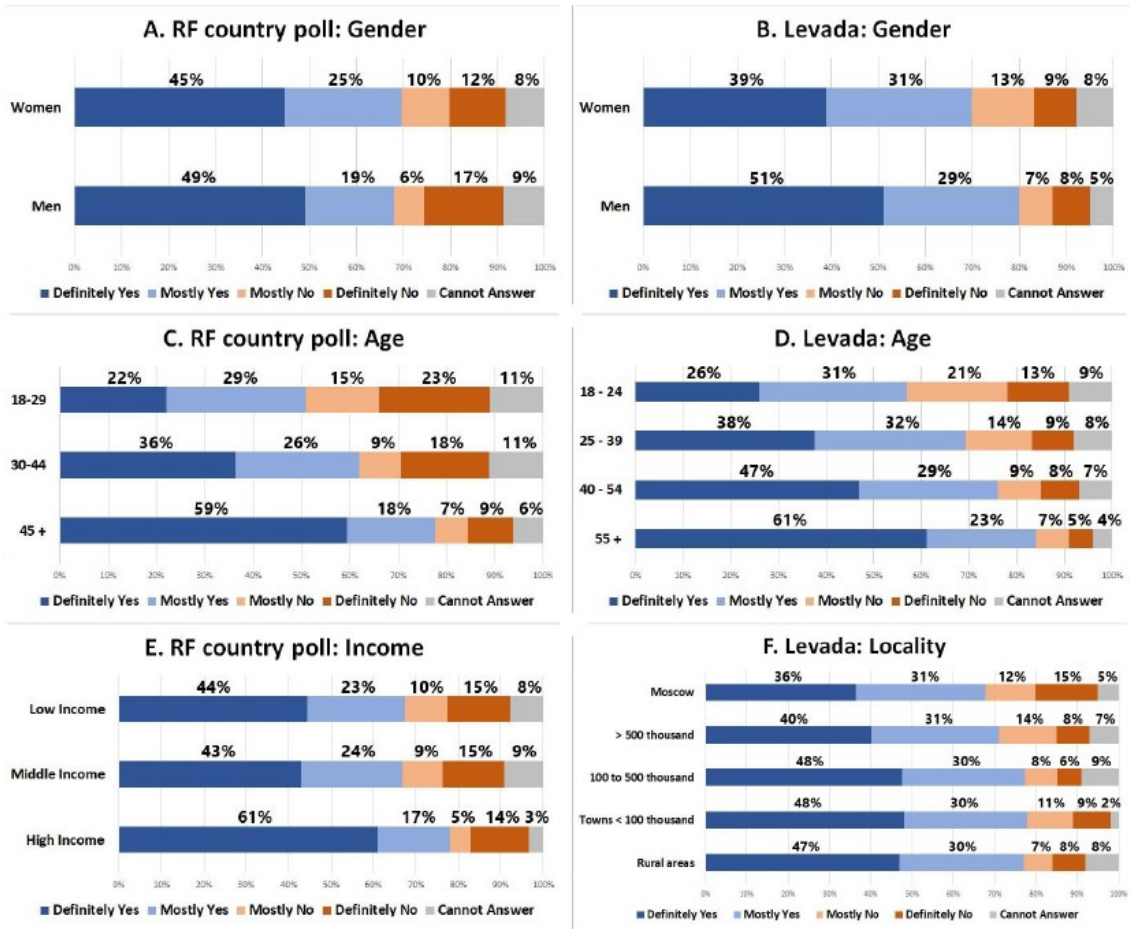
Notes: 1) The middle income group is the omitted baseline category. 2) Estimates in columns I, III, and V are derived from GLM that was weighted to account for the fact that Woman 2 was posted as the ”Neutral” type three times, unlike the other Women + profile types which were only posted once. Note that the unadjusted results do not differ significantly. Estimates in columns III and V are additionally weighted to account for differences in the age distribution. Estimates in column II are from OLS. 3) Robust standard errors are in parentheses. 4) \*, \*\*, and \*\*\* indicate significance at respectively 10%, 5%, and 1% levels. 5) Low income category includes dating site users who answered: ”There is not enough money for anything”. Individuals in the Middle Income category chose ”I have enough for the main expenses and recreation”. High Income group includes those who answered ”I can cover all expenses and have money left over”.

**Table A.5** – Russian Field: Distribution of answers to the “If you had the opportunity to return to the past and cancel the decision to start the military operation, would you do this or not?” by the respondents’ answers to the question “Do you support the military operation of the Russian military on the territory of Ukraine?”, all categories

	Cancel: Definitely No, %	Cancel: Probably No, %	Cancel: Probably Yes, %	Cancel: Definitely Yes, %	Cancel: No ans., %	Total, %
<b>A. Russia: “Do you support the military operation of the Russian military on the territory of Ukraine?”</b>						
Definit. Yes	67	18	3	5	7	100
Mostly Yes	19	40	22	6	13	100
Mostly No	1	11	35	38	15	100
Definit. No	3	1	9	80	7	100
No answer	4	6	13	19	59	100
<b>B. Moscow and St. Petersburg: “Do you support the military operation of the Russian military on the territory of Ukraine?”</b>						
Definit. Yes	68	14	2	2	13	100
Mostly Yes	15	37	17	6	25	100
Mostly No	3	10	35	32	18	100
Definit. No	3	1	7	85	5	100
No answer	3	4	10	14	69	100

Sources: A) Russian Field, “Military Operation in Ukraine: Attitudes of Russians” (in Russian), wave 8, July 28-31, 2022, <https://russianfield.com/nuzhenmir>. Calculations by the author based on published micro data. B) Russian Field, “Travel to Europe without visas. What do residents of capitals think about a possible ban on issuing Schengen visas (to Russians)?” (in Russian), September 2-6, 2022, Moscow and Saint Petersburg, <https://russianfield.com/beviz>. Calculations by the author based on published micro data.

**Figure A.4** – Russian Field (RF) country survey versus the Levada Center polls: Distribution of answers to the “Do you support the Russian military operation in Ukraine?”



Notes: 1) Source 1. The Levada Center, “The Conflict With Ukraine” (in Russian). Panels B and F: <https://www.levada.ru/2023/02/02/konflikt-s-ukrainoj-otsenki-yanvarya-2023-goda/>, January 26-31, 2023, representative sample of 1616 adults. Panel D: <https://www.levada.ru/2022/08/01/konflikt-s-ukrainoj-iyul-2022-goda/>, July 21-27, 2022, representative sample of 1600 adults. 2) Source 2. Russian Field, “Military Operation in Ukraine: Attitudes of Russians” (in Russian), wave 8, July 28-31, 2022, <https://russianfield.com/nuzhenmir>. Calculations by the author based on published micro data. 3) RF panel E. Low income category includes respondents who chose one of the following answers: “We cannot afford to buy food” or “We have enough money for food, but clothing is difficult to afford”. Respondents in the Middle Income category answered either “We can afford to buy food and clothing, but not household appliances without taking out a loan” or “We can buy household appliances without loans, but not bigger items”. High Income group includes those who answered either “We can buy a car without loans, but not bigger items” or “We can afford practically everything: apartment, car, house, etc.”

**Table A.6** – Russian Field Surveys, Descriptive statistics. All variables are categorical

	Country Polls						Moscow and St. Petersburg			
	I. Wave 8, July 28-31, 2022		II. Wave 9, Sept. 29 - Oct. 1, 2022		III. Wave 10, Nov. 29 - Dec. 5, 2022		IV. Wave 11, Jan. 31 - Feb. 6, 2023	V. Moscow and St. Peter., Sept. 2-6, 2022		VI. Moscow street polls, Nov. 2022
	Un- weight.	With sampl. weights	Un- weight.	With sampl. weights	Un- weight.	With sampl. weights		Un- weight.	With sampl. weights	
<b>Number of observations</b>	<b>1609</b>	<b>1609</b>	<b>1610</b>	<b>1610</b>	<b>1603</b>	<b>1603</b>	<b>2000</b>	<b>2518</b>	<b>2518</b>	<b>2000</b>
<b>3 exper. regions</b>	0.21	0.21	0.12	0.12	0.19	0.12	0.12			
<b>St. Petersburg</b>								0.30	0.30	
<b>Women</b>	0.48	0.55	0.55	0.56	0.55	0.55	0.55	0.50	0.55	0.55
<b>Age groups</b>										
<i>18-29</i>	0.20	0.15			0.16	0.16	0.15	0.37	0.12	
<i>30-44</i>	0.47	0.31			0.33	0.32	0.31	0.51	0.32	
<i>18-26</i>			0.13	0.11						0.09
<i>27-34</i>			0.18	0.15						0.13
<i>35-44</i>			0.23	0.20						0.21
<i>45+</i>	0.32	0.54	0.46	0.54	0.51	0.52	0.54	0.12	0.56	0.57
<b>Income</b>										
<i>Low</i>	0.22	0.26	0.21	0.22	0.22	0.23	0.19	0.08	0.10	0.19
<i>Middle</i>	0.60	0.56	0.60	0.59	0.57	0.57	0.61	0.66	0.62	0.65
<i>High</i>	0.13	0.14	0.13	0.12	0.15	0.14	0.14	0.20	0.19	0.11
<b>Education</b>										
<i>Highschool or some univ.</i>			0.16	0.15	0.15	0.15	0.16	0.17	0.11	0.17
<i>Vocational</i>			0.35	0.36	0.32	0.33	0.31	0.10	0.13	0.33
<i>Univ./college or higher</i>			0.46	0.46	0.51	0.50	0.51	0.73	0.75	0.49
<b>Family status</b>										
<i>Married</i>							0.53			
<b>Children</b>										
<i>Has children</i>							0.76			
<i>Has young children</i>							0.33			
<i>Has adult children only</i>							0.43			
<b>Support for the military operation in Ukraine</b>										
<b>Support</b>										
<i>Definitely Yes</i>	0.39	0.47					0.45	0.21	0.34	
<i>Mostly Yes</i>	0.25	0.22					0.24	0.17	0.17	
<i>Mostly No</i>	0.09	0.09					0.08	0.11	0.07	
<i>Definitely No</i>	0.17	0.14					0.14	0.28	0.22	
<b>Cancel</b>										
<i>Definitely No</i>	0.32	0.37	0.33	0.35	0.32	0.33	0.36	0.19	0.29	
<i>Probably No</i>	0.19	0.17	0.16	0.16	0.17	0.17	0.16	0.12	0.10	
<i>Probably Yes</i>	0.13	0.11	0.11	0.11	0.13	0.12	0.14	0.11	0.11	
<i>Definitely Yes</i>	0.23	0.20	0.24	0.22	0.22	0.21	0.20	0.32	0.25	
<i>Yes, was necessary</i>										0.58
<i>No, should not have started</i>										0.28

Notes: 1) Sources for I, II, III, and IV: Russian Field, "Military Operation in Ukraine: Attitudes of Russians" (in Russian). I. Wave 8, July 28-31, 2022, <https://russianfield.com/nuzhenmir>, II. Wave 9, September 29 - October 1, 2022, <https://russianfield.com/mobilizatsia>, III. Wave 10, November 29 - December 5, 2022, <https://russianfield.com/yubiley>, IV. Wave 11, January 31 - February 6, 2023, <https://russianfield.com/godsvo>. 2) Source for V: Russian Field, "Travel to Europe without visas. What do residents of capitals think about a possible ban on issuing Schengen visas (to Russians)?" (in Russian), <https://russianfield.com/bezviz>. 3) Source for VI: Russian Field, Moscow street polls in November, 2022 (<https://russianfield.com/moskvichi> and <https://russianfield.com/moskvastolitsa>). 4) All calculations by the author based on published micro data. 5) Support question in VI: "What is your opinion, was the special military operation in Ukraine necessary or should it not have been started?" 6) Low income category includes respondents who chose one of the following answers: "We cannot afford to buy food" or "We have enough money for food, but clothing is difficult to afford". Respondents in the Middle Income category answered either "We can afford to buy food and clothing, but not household appliances without taking out a loan" or "We can buy household appliances without loans, but not bigger items". High Income group includes those who answered either "We can buy a car without loans, but not bigger items" or "We can afford practically everything: apartment, car, house, etc."

**Table A.7** – Probability of expressing support for the special military operation in Ukraine, LPM, Russian Field ”Military Operation in Ukraine: Attitudes of Russians” survey. Full samples.

	All individuals									
	Support: Yes				Cancel: No					
	Wave 8	Wave 11			Wave 8	Wave 9	Pooled waves 8-10	Wave 11		
	I.	II.	III.				I.	II.	III.	
<b>Number of obs.</b>	<b>1395</b>	<b>1702</b>	<b>1697</b>	<b>1697</b>	<b>1321</b>	<b>1259</b>	<b>3885</b>	<b>1607</b>	<b>1603</b>	<b>1603</b>
<b>Constant</b>	0.706*** (0.027)	0.666*** (0.026)	0.573*** (0.041)	0.577*** (0.041)	0.586*** (0.030)	0.618*** (0.036)	0.539*** (0.018) 0.035* (0.019) 0.002 (0.019)	0.541*** (0.029)	0.421*** (0.044)	0.428*** (0.044)
<b>Wave 8</b>										
<b>Wave 10</b>										
<b>Three regions</b>	-0.083*** (0.029)	-0.175*** (0.034)	-0.159*** (0.034)	-0.159*** (0.041)	-0.073** (0.032)	-0.055 (0.041)	-0.088*** (0.022)	-0.094*** (0.036)	-0.074** (0.036)	-0.075** (0.036)
<b>Woman</b>	0.010 (0.023)	0.007 (0.021)	-0.053 (0.051)	-0.056 (0.051)	-0.009 (0.026)	-0.072*** (0.027)	-0.045*** (0.015)	-0.043* (0.024)	-0.107** (0.051)	-0.109** (0.052)
<b>Ages 18-29</b>	-0.138*** (0.041)	-0.141*** (0.037)	-0.060 (0.042)	-0.059 (0.042)	-0.157*** (0.042)			-0.094** (0.039)	0.005 (0.044)	0.002 (0.044)
<b>Ages 18-34</b>						-0.146*** (0.041)				
<b>Ages 45+</b>	0.130*** (0.027)	0.175*** (0.024)	0.149*** (0.025)	0.130*** (0.033)	0.170*** (0.030)	0.154*** (0.036)	0.220*** (0.015)	0.188*** (0.027)	0.173*** (0.028)	0.138*** (0.038)
<b>Income Low</b>	-0.045 (0.027)	-0.106*** (0.028)	-0.104*** (0.028)	-0.103*** (0.028)	-0.086*** (0.031)	-0.141*** (0.034)	-0.111*** (0.018)	-0.117*** (0.032)	-0.113*** (0.032)	-0.112*** (0.032)
<b>Income High</b>	0.080** (0.031)	0.090*** (0.027)	0.089*** (0.027)	0.089*** (0.027)	0.126*** (0.035)	0.027 (0.039)	0.063*** (0.022)	0.106*** (0.033)	0.098*** (0.034)	0.098*** (0.033)
<b>Education HS / some university</b>		0.082*** (0.031)	0.098*** (0.031)	0.098*** (0.031)		-0.032 (0.041)		0.011 (0.036)	0.031 (0.036)	0.030 (0.036)
<b>Education Vocational</b>		0.056** (0.022)	0.053** (0.022)	0.049** (0.022)		0.067** (0.029)		0.065** (0.027)	0.063** (0.026)	0.060** (0.027)
<b>Married</b>			-0.0002 (0.036)	-0.004 (0.036)					-0.018 (0.042)	-0.017 (0.042)
<b>Married, Woman</b>			0.012 (0.045)	0.026 (0.045)					0.131** (0.053)	0.137** (0.054)
<b>Has children</b>			0.127*** (0.045)						0.167*** (0.051)	
<b>Has children, Woman</b>			0.053 (0.058)						-0.025 (0.063)	
<b>Adult children only</b>				0.128** (0.051)						0.196*** (0.058)
<b>Adult children only, Woman</b>				0.086 (0.060)						-0.010 (0.066)
<b>Young children</b>				0.152*** (0.049)						0.170*** (0.056)
<b>Young children, Woman</b>				-0.006 (0.067)						-0.054 (0.073)

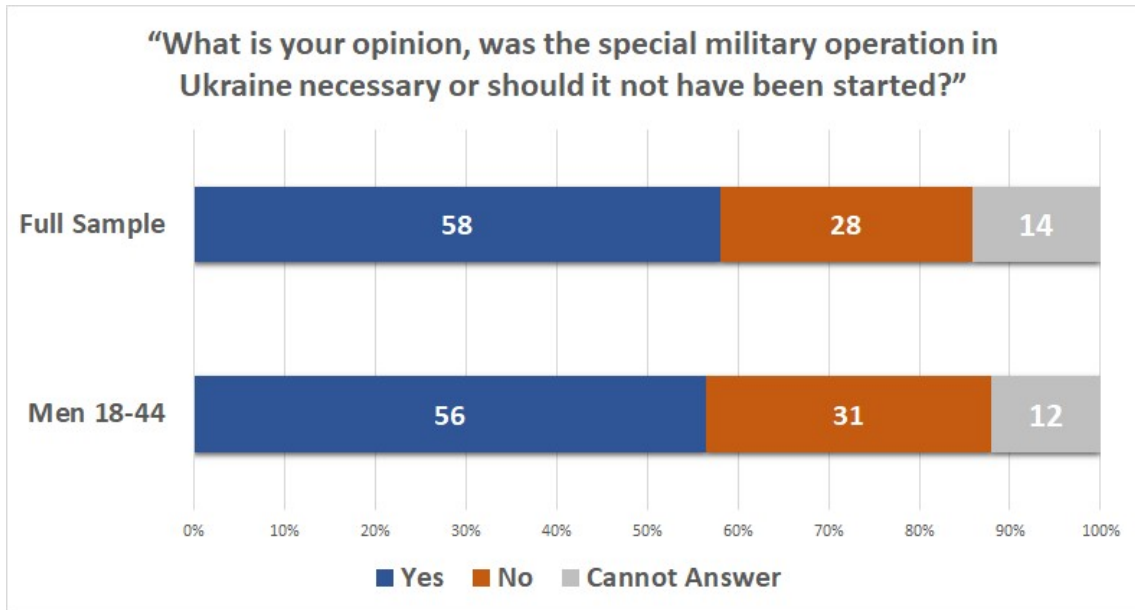
Notes: 1) Nonresponses are omitted in calculations. 2) Sources: i) Wave 8, July 28-31, 2022, <https://russianfield.com/nuzhenmir>, ii) Wave 9, September 29 - October 1, 2022, <https://russianfield.com/mobilizatsia>, iii) Wave 10, November 29 - December 5, 2022, <https://russianfield.com/yubiley>, iv) wave 11, January 31 - February 6, 2023, <https://russianfield.com/godsvo>. 3) Wave 10 estimates are not presented separately as they are similar to those obtained using data from wave 9 (see pooled estimates). 4) Support question: ”Do you support the military operation of the Russian military on the territory of Ukraine?”, Cancel question: ”If you had the opportunity to return to the past and cancel the decision to start the military operation, would you do this or not?” 5) The estimates for waves 8 - 10 are from the GLM with sampling weights, for wave 11 - OLS (supposedly representative without sampling weights). 6) The baseline omitted category for age groups is 35-44, for income it is Middle Income, and for education it is University/college or higher. 7) Robust standard errors are in parentheses. 8) \*, \*\*, and \*\*\* indicate significance at respectively 10%, 5%, and 1% levels.

**Table A.8** – Probability of expressing support for the special military operation in Ukraine, LPM, Russian Field "Military Operation in Ukraine: Attitudes of Russians" survey: Respondents ages 18 to 44.

	A. Ages 18 to 44							
	Support: Yes			Cancel: No				
	Wave 8	Wave 11		Wave 8	Wave 9	Pooled waves 8-10	Wave 11	
	I.	II.				I.	II.	
<b>Number of obs.</b>	<b>936</b>	<b>775</b>	<b>772</b>	<b>899</b>	<b>699</b>	<b>2242</b>	<b>762</b>	<b>759</b>
<b>Constant</b>	0.751*** (0.027)	0.674*** (0.034)	0.551*** (0.049)	0.632*** (0.030)	0.657*** (0.040)	0.544*** (0.023)	0.536*** (0.036)	0.400*** (0.052)
<b>Wave 8</b>						0.044* (0.026)		
<b>Wave 10</b>						0.026 (0.026)		
<b>Three regions</b>	-0.227*** (0.041)	-0.274*** (0.056)	-0.243*** (0.056)	-0.147*** (0.042)	-0.076 (0.057)	-0.134*** (0.030)	-0.128** (0.055)	-0.088 (0.055)
<i>Woman</i>	0.013 (0.030)	-0.026 (0.034)	-0.074 (0.057)	-0.042 (0.032)	-0.122*** (0.037)	-0.058*** (0.021)	-0.053 (0.036)	-0.134** (0.057)
<b>Ages 18-29</b>	-0.139*** (0.033)	-0.158*** (0.038)	-0.061 (0.045)	-0.162*** (0.034)			-0.101** (0.040)	0.001 (0.046)
<b>Ages 18-34</b>					-0.145*** (0.039)			
<b>Income Low</b>	-0.096** (0.040)	-0.081 (0.052)	-0.095* (0.052)	-0.142*** (0.041)	-0.137*** (0.050)	-0.135*** (0.027)	-0.057 (0.054)	-0.066 (0.054)
<b>Income High</b>	0.031 (0.044)	0.140*** (0.044)	0.140*** (0.044)	0.116** (0.047)	0.041 (0.054)	0.079*** (0.030)	0.158*** (0.053)	0.153*** (0.053)
<b>Education HS / some university</b>		0.138*** (0.045)	0.166*** (0.044)		-0.022 (0.052)		0.036 (0.049)	0.080 (0.049)
<b>Education Vocational</b>		0.055 (0.041)	0.057 (0.041)		0.020 (0.045)		0.050 (0.044)	0.058 (0.044)
<b>Married</b>			0.003 (0.064)					0.043 (0.070)
<i>Married, Woman</i>			0.069 (0.085)					0.137 (0.090)
<b>Has children</b>			0.174*** (0.067)					0.137* (0.073)
<i>Has children, Woman</i>			-0.027 (0.087)					-0.026 (0.092)
	B. Ages 18 to 44, Men only							
<b>Number of obs.</b>	<b>500</b>	<b>387</b>	<b>384</b>	<b>483</b>	<b>326</b>	<b>1138</b>	<b>373</b>	<b>370</b>
<b>Constant</b>	0.737*** (0.030)	0.668*** (0.042)	0.548*** (0.060)	0.608*** (0.034)	0.624*** (0.051)	0.572*** (0.029)	0.518*** (0.045)	0.392*** (0.065)
<b>Wave 8</b>						0.004 (0.036)		
<b>Wave 10</b>						-0.023 (0.036)		
<b>Three regions</b>	-0.154*** (0.057)	-0.229*** (0.083)	-0.218*** (0.081)	-0.116** (0.058)	-0.105 (0.083)	-0.137*** (0.042)	-0.156* (0.081)	-0.148* (0.080)
<b>Ages 18-29</b>	-0.123*** (0.046)	-0.163*** (0.053)	-0.067 (0.063)	-0.149*** (0.047)			-0.066 (0.056)	0.028 (0.066)
<b>Ages 18-34</b>					-0.086 (0.057)			
<b>Income Low</b>	-0.104* (0.057)	-0.104 (0.079)	-0.116 (0.080)	-0.080 (0.058)	-0.215*** (0.078)	-0.109*** (0.041)	-0.064 (0.086)	-0.071 (0.088)
<b>Income High</b>	0.014 (0.060)	0.138** (0.061)	0.129** (0.061)	0.127** (0.063)	0.040 (0.076)	0.069* (0.039)	0.172** (0.072)	0.171** (0.072)
<b>Education HS / some university</b>		0.173*** (0.060)	0.194*** (0.058)		-0.041 (0.075)		0.043 (0.069)	0.067 (0.069)
<b>Education Vocational</b>		0.051 (0.057)	0.050 (0.056)		0.077 (0.064)		0.069 (0.061)	0.062 (0.061)
<b>Married</b>			0.003 (0.065)					0.043 (0.072)
<b>Has children</b>			0.177** (0.070)					0.146* (0.078)

Notes: 1) Nonresponses are omitted in calculations. 2) Sources: i) Wave 8, July 28-31, 2022, <https://russianfield.com/nuzhenmir>, ii) Wave 9, September 29 - October 1, 2022, <https://russianfield.com/mobilizatsia>, iii) Wave 10, November 29 - December 5, 2022, <https://russianfield.com/yubiley>, iv) wave 11, January 31 - February 6, 2023, <https://russianfield.com/godsvo>. 3) Wave 10 estimates are not presented separately as they are similar to those obtained using data from wave 9 (see pooled estimates). 4) Support question: "Do you support the military operation of the Russian military on the territory of Ukraine?", Cancel question: "If you had the opportunity to return to the past and cancel the decision to start the military operation, would you do this or not?" 5) The estimates for waves 8 - 10 are from the GLM with sampling weights, for wave 11 - OLS (supposedly representative without sampling weights). 6) The baseline omitted category for age groups is 30-44 or 35-44, for income it is Middle Income, and for education it is University/college or higher. 7) Robust standard errors are in parentheses. 8) \*, \*\*, and \*\*\* indicate significance at respectively 10%, 5%, and 1% levels.

**Figure A.5** – Moscow street polls November 2022: Distributions of answers



Notes: 1) Sources: Russian Field street polls in Moscow "Special operation' and Mobilization: Attitudes of Muscovites" (4-5 November 2022, <https://russianfield.com/moskvastolitsa>) and "What do Muscovites Think About the 'Special Military Operation in Ukraine'" (18-19 November 2022, <https://russianfield.com/moskvichi>). In Russian, calculations by the author based on published micro data. 2) Answers: "Yes, necessary" and "No, should not have been started".

## **B Appendix: Initial examination of the data, issue with experimental design and proposed approach to address it**

Figure B.6 shows the proportions of positive responses (or "mutual likes") for each profile type in three experimental regions. These values represent the share of male users who responded positively to the experimental profile, out of all the male users who were liked by that profile and remained active up to day 10 when the data was collected. Figure B.6 also displays the proportions of positive responses for "Neutral Woman 2 Reposted", which will be discussed later in this subsection.

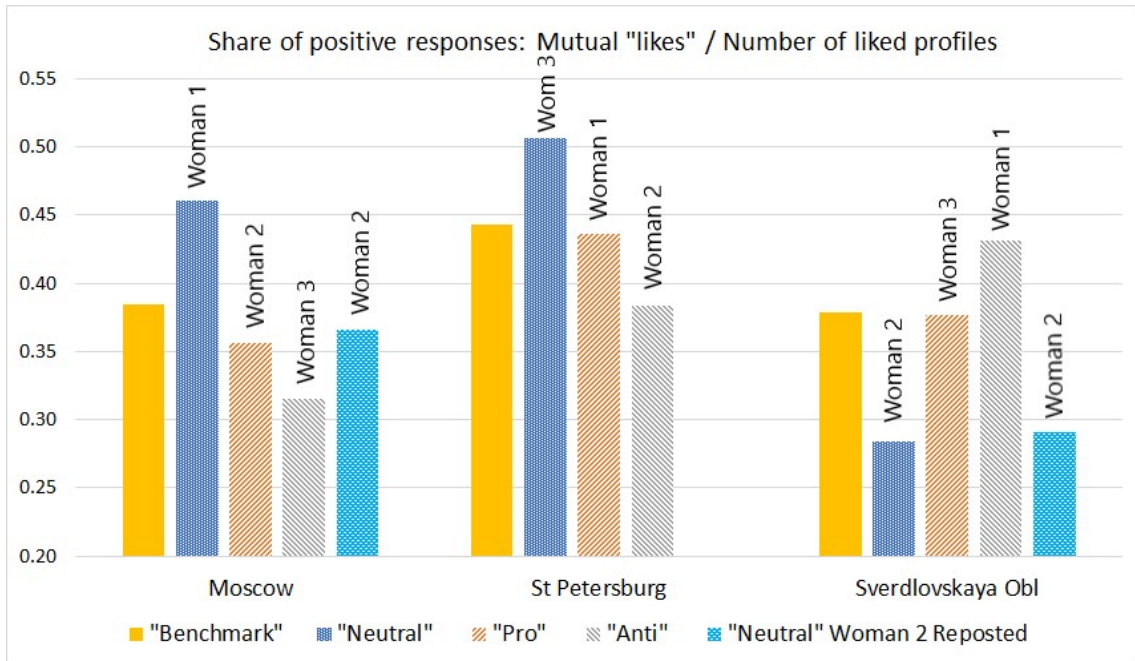
The results from Figure B.6 indicate that the proportions of positive responses vary across different profile types and experimental regions.

First, note that men in Saint Petersburg are more responsive to all profile types compared to other regions. This is further supported by the individual-level data analysis in Section 3.3, which indicates that experimental profiles posted in Saint Petersburg have a higher likelihood of receiving positive responses when compared to those posted in the other two regions (see Tables 5 and 6).<sup>48</sup>

<sup>48</sup>The dating site was created by a company based in Saint Petersburg. Perhaps, this is due to some legacy effect.



**Figure B.6** – Proportion of positive responses by type for each region: share of male profiles liked by fictitious female profile that responded positively



Second, comparison of response rates across Women 1 - 3 posted as "Neutral" and the "Benchmark" Woman 4 indicates that Russian men do not evaluate the attractiveness of these women in the same manner as the CFD raters. "Benchmark" Woman 4 has the highest CFD attractiveness score of 5.09, but she does not receive the highest proportion of positive responses in either of the experimental regions. Men are most responsive to Women 1 and 3 with the respective CFD attractiveness scores of 4.76 and 4.69. Woman 2, with the second highest attractiveness score of 4.89, receives the lowest proportion of positive responses in all regions, including Sverdlovskaya oblast where she is posted as "Neutral".

Third, there is a potential problem with the experimental design, which is discussed in detail next. The critical assumption for identification is restated, and consideration is given to how and why this assumption may not be currently satisfied in the experimental data. A proposed approach to resolving the problem is presented.

**The identification strategy and potential problem.** The analysis relies on the assumption that men in each of these three regions hold comparable assessments of these women's attractiveness. Under this assumption, if each woman is posted as "Neutral" in each region, any differences in average response rates from men in different regions would be due solely to regional differences in dating site users' activity, and not to differences in tastes for this woman's appearance.

If the assumption holds, the analysis can be conducted as if each woman was posted as three different profile types in the same geographic location, and any regional differences in activity levels can be averaged out through the inclusion of re-

gional controls.

The "Benchmark" Woman 4 is the only profile posted in each of the three regions. If men in all these regions have similar preferences for her appearance, any differences in response rates can be used to assess regional variations in dating site users' activity levels.

The data presented in Figure 2 indicate similar response rates to the "Benchmark" Woman 4 profile among dating site users in Moscow and Sverdlovskaya oblast, while response rates were higher among those in Saint Petersburg. The regression analysis in Section 3.3, excluding the observations for the "Benchmark" Woman 4 profile, confirms higher average response rates to all profiles among dating site users in Saint Petersburg, and similar response levels in Moscow and Sverdlovskaya oblast. This suggests that men in these three regions have similar preferences for the appearance of the "Benchmark" Woman 4.

The primary purpose of posting the "Benchmark" Woman 4 in each region is to assess the relative attractiveness of Women 1 - 3 as "Neutral" in these regions. The data presented in Figure B.6 suggest a potential issue with the assumption of comparable preferences for the appearance of Woman 2 across regions.

Woman 2 is posted as "Neutral" only in Sverdlovskaya Oblast, and Figure B.6 shows a substantially lower proportion of positive responses for her compared to the "Benchmark" Woman 4 (0.28 versus 0.38). In Moscow and Saint Petersburg, Woman 2 is posted as "Pro" and "Anti" respectively. As argued in the Hypothesis Section 3.1, the response rate to a profile signaling political views should not exceed the response rate to a non-signaling profile. However, the response rates to the political views signaling profiles of Woman 2 in Moscow and Saint Petersburg are only slightly below the response rates to the "Benchmark" Woman 4 in these cities.

If men in Sverdlovskaya oblast do not find Woman 2 as attractive as men in Moscow and Saint Petersburg do, the results may be biased. The relative attractiveness of the "Neutral" women could be underestimated, since Woman 2 does not signal political views in Sverdlovskaya oblast.

Note that this potential problem could not have been detected without the inclusion of the "Benchmark" Woman 4 profiles in the experimental design.

**To confirm the issue, I reposted Woman 2 as "Neutral" in Sverdlovskaya oblast and Moscow.** Woman 2 was reposted in Sverdlovskaya oblast on October 29, one month after her initial profile was deleted. Her attractiveness measures are very similar to the earlier numbers: she received 70 mutual "likes" out of the remaining 241 users, compared with 68 mutual "likes" from the remaining 239 users on day 10.

On November 13, I also reposted her profile in Moscow. By day 10, her profile received 82 mutual "likes" from the remaining 221 users.<sup>49</sup> Figure B.6 displays the

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<sup>49</sup>Figure A.2 in the Appendix shows the number of male profiles liked and the number of mutual "likes" in each region and for every type of female profile over time for all experimental profiles, including the reposted profiles of Woman 2.

proportions of positive responses for these reposted profiles.

In Moscow Woman 2 was posted as both “Pro” (October 17) and “Neutral” (November 13), so we can compare the respective response rates. As expected (see Subsection 3.1), the response rate for the political view signaling profile is lower than that for the non-signaling type. The difference is only 1.1 percentage points, an effect equal to 2.9% of the “Neutral” positive response rate. The number of observations for the responses to Woman 2 in Moscow is too small to make conclusions regarding the significance of this difference.

Figure B.6 confirms the suspicion of potential differences in preferences for the appearance of Woman 2 between daters in Moscow and Sverdlovskaya oblast. The average response rate for the “Benchmark” Woman 4 in Sverdlovskaya oblast is 0.38, similar to that in Moscow. In Sverdlovskaya oblast the “Neutral” Woman 2 has 0.28 average response rate (0.29 when she is reposted one month later), 25% (23%) lower than the “Benchmark”’s. In Moscow the average response rate for the “Neutral” Woman 2 is 0.37, only one percentage point bellow the “Benchmark”’s.

Table B.9 compares the odds ratios of positive responses to the “Neutral” Woman 2 to the positive responses to the “Benchmark” Woman 4 among men in Moscow and Sverdlovskaya oblast. The sample size of users liked by the profiles (less than 250 “surviving” users for each profile) is not large enough to produce a statistically significant result for the log difference in odds ratios. Nevertheless, if we examine the sample of all users who viewed the profiles, or a subset of these users interested in finding a potential marital partner, the log difference in odds ratios is statistically significant respectively at 5% and 10% levels.<sup>50</sup>

**Table B.9** – Odds ratios: Comparing responses to the “Neutral” Woman 2 relative to the “Benchmark” Woman 4 in Moscow and Sverdlovskaya oblast

Set of users \ OR	OR in Moscow	OR in Sverdl. obl.	Log diff.	p-value (two sided)
Users liked by the profile	0.93	0.64	0.38	0.148
Users seeking marriage who viewed profile	0.95	0.65	0.38*	0.091
All users who viewed profile	1.03	0.65	0.47**	0.020

Note: \* and \*\* indicate significance respectively at the 10% and 5% levels.

The analysis of responses to different types of profiles and women by region reveals

<sup>50</sup>The number of users who viewed the “Neutral” Woman 2’s profile in Moscow is 476 (333 of them between the ages of 18 and 45 and claimed to be interested in marriage). The detailed data is collected only for the users between the ages of 18 and 45 who are interested in getting married. To avoid double counting in Sverdlovskaya oblast I only use data for the first posting of “Neutral” Woman 2 and end up with 336 observations. In the sample of men under the age of 45 who declared their interest in finding a marital partner it is possible to control for the double counting of users. There are 374 unique users who have viewed the “Neutral” profile in Sverdlovskaya oblast. The “Benchmark” Woman 4’s profile was viewed by 629 (365) users in Moscow and 354 (246) users in Sverdlovskaya oblast.

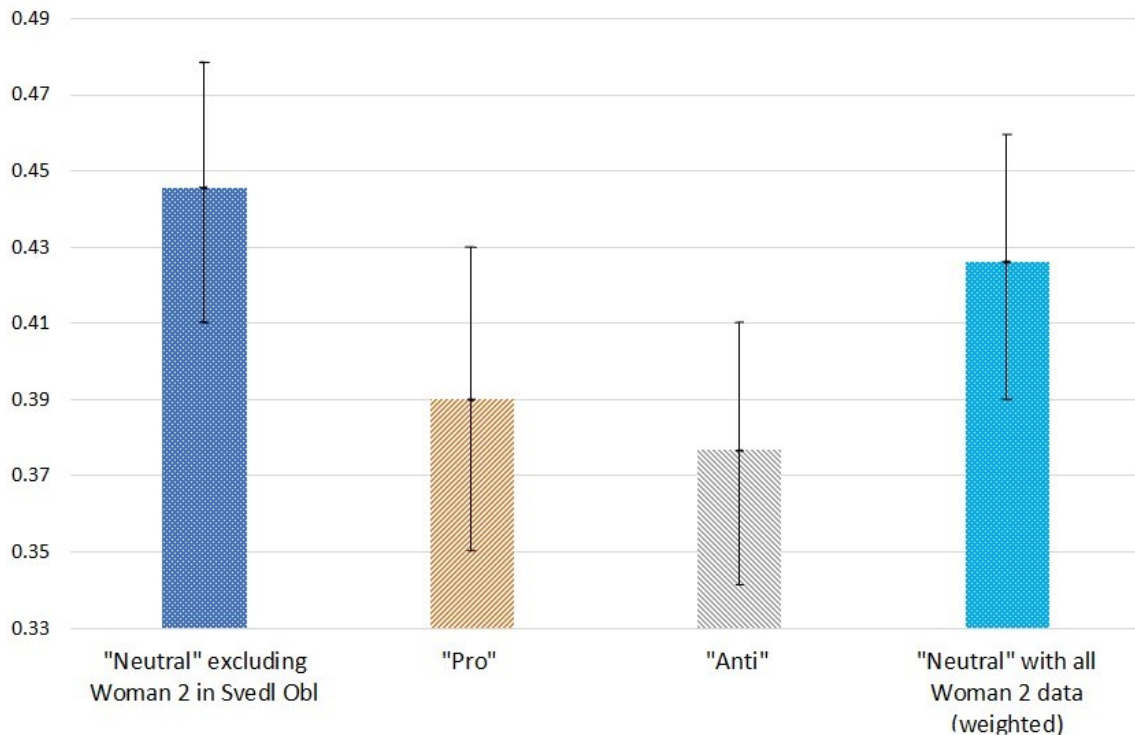
a noticeable discrepancy in the way men in Sverdlovskaya oblast evaluate the relative attractiveness of Woman 2 compared to men in the other two regions.

## C Appendix: Comparing Proportions of Positive Responses

Here, I compare the proportions of positive responses for the three main profile types using aggregate data on the number of mutual likes received by each experimental profile from dating site users who were liked by that profile and remained active on the site by day ten. The advantage of this aggregate data is that it can account for dating site users leaving the platform over the ten-day period, which is information not available at the individual level. However, the drawback is that this data cannot account for the specific characteristics of individual users.

Figure C.7 shows that a higher proportion of positive responses were given for "Neutral" profiles compared to the other two types. Table C.10 displays the values and tests for differences in proportions between "Neutral" and both "Pro" and "Anti".

**Figure C.7** – Proportions of positive responses by type, full sample: share of male profiles liked by fictitious female profile that responded positively.



Note: Observations for Woman 2 in Sverdlovskaya obl. are weighted/averaged to account for her being posted twice in this region.

Table C.10 compares the proportions of positive responses for the three profile types using the full sample, including all observations of "Neutral" Woman 2. The response rates for profile types indicating political views are expected to be lower than those for "Neutral" profiles (Subsection 3.1). It is appropriate to use a one-sided test, as shown in Table C.10. The response rate for the "Pro" profile types is 3.6 percentage points or 8.5% lower, which is significant at a 10% level with a one-sided test but not significant with a two-sided test. The response rate for the "Anti" profile types is 4.9 percentage points or 11.6% lower, showing significance at a 5% level with a one-sided test and at a 10% level with a two-sided test.

**Table C.10** – Comparing proportions of positive responses, "liked" users, full sample

	"Neutral"	"Pro"	"Anti"
Proportion of positive responses, $p$	0.43	0.39	0.38
<b>Difference</b>		<b>0.036</b>	<b>0.049</b>
<b>p-value one sided</b>		<b>0.086</b>	<b>0.031</b>
<b>p-value two sided</b>		0.172	0.061

Note that as there are reasons to expect that men in Saint Petersburg find Woman 2 more attractive than do men in Sverdlovskaya oblast, these estimates are likely biased downward and the true differences are larger. See the discussion in Section 3.2.

Table C.11 contains the odds ratios of positive responses to the "Pro" and "Anti" profiles relative to those for the "Neutral" type female. The differences are not statistically significant. The hypothesis of similar responses to both types of profiles is also not rejected via regression analysis. Thus, the evidence indicates that on this dating site, the penalties for displaying either pro- or anti-war positions on a dating profile are not significantly different.

**Table C.11** – Odds ratios: Comparing responses to the "Pro" and "Anti" versus "Neutral" profiles in three regions

	OR "Pro" / "Neut."	OR "Anti" / "Neut."	Log diff.	p-value (two sided )	p-value (one sided)
<b>Without Woman 2 in Sverdlovskaya oblast</b>					
Users liked by the profile	0.80	0.75	0.06	0.722	0.361
Users seeking marriage who viewed profile	0.88	0.88	0.01	0.943	0.472
All users who viewed profile	0.90	0.89	0.02	0.878	0.439
<b>All sample</b>					
Users liked by the profile	0.85	0.80	0.06	0.721	0.361
Users seeking marriage who viewed profile	0.87	0.88	0.01	0.944	0.472
All users who viewed profile	0.91	0.90	0.02	0.879	0.440

## **D Appendix: Do men in Saint Petersburg on average have similar preferences for the appearance of Woman 2 as do men in Moscow? Additional arguments.**

In Saint Petersburg, the odds ratio of responses to "Anti" Woman 2 relative to the "Benchmark" Woman 4 is 0.78, which falls between those in Moscow (0.93) and Sverdlovskaya oblast (0.64), where Woman 2 is posted as "Neutral".

The difference in relative response rates to Woman 2 in Saint Petersburg and Moscow could be due to two possible factors: 1) Woman 2's "Anti" war political views displayed in Saint Petersburg, which may have reduced the response rates to her profile there, and/or 2) differing preferences for the appearance of Woman 2 in Saint Petersburg.

As argued in the Hypothesis Subsection 3.1, profiles that disclose political views are expected to have a lower response rate compared to the non-signaling profiles. In Saint Petersburg, the proportion of positive responses to Woman 2 as "Anti" is 0.38. Therefore, it can be expected that the proportion of positive responses to her as "Neutral" will be at least as high or higher, making 0.38 the lower bound. Thus, the odds ratio of responses to "Anti" Woman 2 relative to the "Benchmark" Woman 4 in Saint Petersburg (0.78) also represents the lower bound on the odds ratio of responses to Woman 2 relative to the "Benchmark" in Saint Petersburg, if Woman 2 was posted there as "Neutral".

Although men in Saint Petersburg appear to find Woman 2 more attractive compared to men in Sverdlovskaya oblast, this line of reasoning does not rule out the possibility that men in Saint Petersburg may not find Woman 2 just as attractive as do men in Moscow.