Study Information

Hypotheses

In a field experiment recruiting subjects in five countries using Facebook ads and providing fully truthful information with no deception, we expect that respondents will react differently to various types of information randomly assigned in the Facebook ads, and we anticipate that some messages will be more effective in engaging respondents and in prompting measurable behaviors toward donating to war refugees. For each treatment, we expose Facebook users to an advertisement soliciting donations, and randomly assign the content of the ad, including text and imagery, to emphasize the different messages described above.

H1: Ads with appeals to shared suffering will generate higher click rates for donations than placebo.

H2: Ads with a framing that focuses on the suffering of Ukrainians, as opposed to attacks on Ukraine, will depoliticize the issue and generate higher click rates for donations.

H3: Ads pointing to international organizations compared to local NGOs will generate higher click rates for donations due to their perception of legitimacy.

H4: Ads with an emphasis on individual victims both on text and image will generate higher click rates for donations than ads noting statistical victims.

H5: Ads specifically naming an individual Ukrainian war refugee will generate higher click rates than placebo.

H6: Ads emphasizing strategic ties between Russia and the user's country will generate lower click rates for donations than placebo.

Update 10.9.23

The following hypotheses work from the following matrix of treatments. All told, there are eight treatments in Estonia, Kazakhstan, and Serbia, and four treatments in India and Turkey. The hypotheses below apply across all countries, unless specified otherwise.

	Treatment			
Target Country Language	Ukrainians	Russians	Dissidents	RU Victims of UA
Russian	Ukrainians	Russians	Dissidents	RU Victims of UA

H7: Ads in Russian regarding Ukrainian victims will perform the worst

H8: in Estonia, Kazakhstan, and Serbia, Russian-language ads with the Dissidents treatment will perform better than the Ukrainians treatment and better than the RU Victims of UA Treatment, but worse than the Russians treatment (UA -> RU Victims of UA -> Dissidents -> Russians).

H9: In Estonia, the Estonian-language RU Victims of UA will perform worst; Ukrainians will perform best (RU Victims of UA -> Russians -> Dissidents -> Ukrainians); in all other countries, Dissidents and RU Victims of UA will perform better than Russians and Ukrainians

Design Plan

Study type

Experiment - A researcher randomly assigns treatments to study subjects, this includes field or lab experiments. This is also known as an intervention experiment and includes randomized controlled trials.

Blinding

> Personnel who interact directly with the study subjects (either human or non-human subjects) will not be aware of the assigned treatments. (Commonly known as “double blind”)

Is there any additional blinding in this study?

There is no formal blinding in this study, but subjects will not be aware of assigned experimental conditions compared to alternatives.

Study design

The study will employ an online field experiment using Facebook’s A/B testing procedure. Facebook users will be randomly exposed to an ad with content related to the Russo-Ukrainian War. The ad will have the following components: headline, Facebook page name, image, quick headline, URL, and a “donate now” and/or "learn more" button. In the ad, the headline or treatment will be randomized. On the Facebook advertisement, the advertiser name or the Facebook page will be titled “Refugee Action Initiative”. Following the logo and name, we will randomly assign an ad message as below.

Treatment Language (examples):

Placebo:

Provide financial help to refugees from Ukraine.

Shared Suffering (Specific):

Our people know what it is like to [flee their homes/have our country invaded/suffer from Russian aggression/leave our homes out of necessity]. Donate to Ukrainian refugees.

Flee their homes: Serbia, Turkey

Leave our homes out of necessity/out of no other choice: India

Have our country invaded/suffer from Russian aggression: Estonia, Kazakhstan

Ukrainians vs Ukraine:

Ukrainians are suffering. Donate to help Ukrainians.

Ukraine is suffering. Donate to help Ukraine.

International Legitimacy vs. Local Knowledge:

International Legitimacy: Make sure your money goes to a global non-profit organization that knows how to help Ukrainian refugees. Donate to the UNHCR.

Local Knowledge: Make sure your money goes to a local non-profit Ukraine-based organization that knows how to help Ukrainian refugees. Donate to the CVCF.

Strategic Ties:

Serbia: Serbia relies on Russia to protect Kosovo; can Ukrainian refugees rely on you?

Turkey: Turkey relies on Russia for natural gas; can Ukrainian refugees rely on you?

India: The Indian military relies on Russian planes and missiles to protect the country; can Ukrainian refugees rely on you?

Kazakhstan: Kazakhstan relies on Russian demand for Kazakh goods; can Ukrainian refugees rely on you?

Estonia: Estonia relies on Russian demand for Estonian goods; can Ukrainian refugees rely on you?

Individual vs. Statistic:

Individual: Nina is a refugee forced out of Ukraine. Support refugees like her by clicking here.

Statistic: Over 5 million refugees have been forced out of Ukraine. Support refugees by clicking here.

Ukrainians vs. Russians:

Countless Ukranians flee for safety. Support refugees by clicking here.

Countless Russians flee for safety. Support refugees by clicking here.

Below a headline, the ad will show an image related to the Russo-Ukrainian war, which will vary depending on the advertisements. We will use an image of a Ukrainian child with a Ukrainian flag for all treatments except for the statistical victims treatment in which we will use only the Ukrainian flag and text. The website URL will direct people to a website where they can donate to refugees. The behavioral outcome is link clicks. Participants can choose to click on the link on the ad on Facebook, which will route to a charitable organization's donation website where users can choose to donate if desired. When the participants click on the link from the Facebook ad, it will directly lead them to the donation URL.

Update 10.9.23

In this update, we present below additional treatments, to be deployed in the same format as described above. We list multiple options for each treatment due to the difficulty of knowing in advance which ones will be approved by Facebook. Options are listed here in the order in which we would prefer to use them.

Dissidents:

Dissident Russians flee for safety. Support refugees by clicking here.

Pro-peace/peace-loving Russians flee from Russia for safety. Support refugees by clicking here.

Countless Russian citizens flee Russia for safety. Support refugees by clicking here.

Countless citizens leave Russia to seek peace. Support refugees by clicking here.

Russian Victims of Ukraine:

Countless Russians flee Ukrainian attacks. Support refugees by clicking here.

Countless Russians flee for safety as Ukrainian violence escalates. Support refugees by clicking here.

Ukrainian violence forces countless Russians from their homes. Support refugees by clicking here.

Russian victims of Ukrainian violence flee for safety. Support refugees by clicking here.

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Randomization

We will use Facebook A/B testing function in which treatments are randomly assigned to the audience. Facebook's A/B testing feature evenly divides the exposure of the Facebook ads so that there is randomization among the experimental conditions we intend to compare. Using this method we can also potentially overcome issues such as respondents' answering more than once and unbalanced distribution in socioeconomic characteristics. To compare multiple treatments, we include a placebo and compare it to each treatment. Multiple treatments can be compared in Facebook A/B testing, so we created combinations of treatments to compare all treatments with each other and to the placebo. Facebook's A/B testing feature allows for up to five different versions of ads in a single comparison set.

Update 10.9.23: We add a new set (Combination 4 below), and we also re-run the below combinations in the target country language and in Russian.

Combinations

Combination 1

(1) Placebo

(2) Shared suffering

(3) Strategic ties

(4) Ukrainians

(5) Russians

Combination 2

(1) Individual victims (individual image)

(2) Statistical victims (flag image)

(3) Individual victims (individual image + language)

(4) Statistical victims (flag image + language)

Combination 3

(1) Placebo

(2) International legitimacy

(3) Local knowledge

(4) Ukrainians

(5) Ukraine

Combination 4 (New 10.9.23)

(1) Placebo

(2) Ukrainians

(3) Russians

(4) Dissidents

(5) Russian Victims of Ukraine

Sampling Plan

Existing Data

Registration prior to creation of data

Explanation of existing data

No response

Data collection procedures

Participants will be engaged through Facebook (aged 18 or over), located in either India, Estonia, Kazakhstan, Serbia or Turkey. Individuals who are below the age of 18, and who are not on the Facebook platform will be excluded from the sample. Respondents will be Facebook users who voluntarily engage with Facebook ads and click on the provided webpage link. Data on the Facebook ads will be collected according to Facebook policies. All participants that click on the Facebook ad will be redirected to the donation pages of international organizations or NGOs. All participation is voluntary, all information provided is fully truthful, and no personally identifying information is collected.

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Sample size

Based on budget availability, we expect approximately 100,000 advertisement exposures with 0.1-0.2 percent conversion rate to the donate page per ad. We aim to obtain 100 link clicks per treatment, who will view the donation page. To more accurately calculate the necessary sample size, we will need a baseline conversion rate (= number of successful interactions on test page / number of visitors on test page) after we conduct the pilot round of the experiment.

Sample size rationale

No response

Stopping rule

No response

Variables

Manipulated variables

Manipulated variables involve the inclusion in advertisements of encouragements for donations to victims of Russo-Ukraine war with a donation link. These treatments are compared to a control condition that offers only the donation link. This allows for randomized variation in normative, emotional or strategic reasoning for donation from each treatment as either present (1) or absent in control (0). This also enables comparison of each treatment to each other. The experimental conditions are listed below.

Experimental Conditions for Combination

> 1: Placebo : Individual image + “Provide financial help to refugees from Ukraine.” + UNHCR link.
>
> Individual image + Shared Suffering: “Our people know what it is like to [flee their homes/have our country invaded/suffer from Russian aggression]. Donate to Ukrainian refugees.” + UNHCR link.
>
> Individual image + Strategic Ties: (country specific languages are presented above) + UNHCR link.
>
> Individual image + Ukrainians: “Countless Ukranians flee for safety. Support refugees by clicking here.” + UNHCR link.
>
> Individual image + Russians: “Countless Russians flee for safety. Support refugees by clicking here.” + UNHCR link. Experimental Conditions for Combination
>
> 2: Placebo 1: Individual Image + “Provide financial help to refugees from Ukraine.” + UNHCR link.
>
> Placebo 2: Group image + “Provide financial help to refugees from Ukraine.” + UNHCR link.
>
> Individual image + Individual Victims: “Nina is a refugee forced out of Ukraine. Support refugees like her by clicking here.” + UNHCR link.
>
> Image emphasizing statistics + Statistical Victims: “Over 5 million refugees have been forced out of Ukraine. Support refugees by clicking here.” + UNHCR link.

3: Placebo : Individual image + “Provide financial help to refugees from Ukraine.” + UNHCR link.

Individual image + International Legitimacy: “Make sure your money goes to a global non-profit organization that knows how to help Ukrainian refugees. Donate to the UNHCR.” + UNHCR link.

Individual image + Local Knowledge: “Make sure your money goes to a local non-profit Ukraine-based organization that knows how to help Ukrainian refugees. Donate to the CVCF.” + CVCF (local NGO) link.

Individual image + Ukrainians: “Ukrainians are suffering. Donate to help Ukrainians.” + UNHCR link.

Individual image + Ukraine: “Ukraine is suffering. Donate to help Ukraine.” + UNHCR link.

Update 10.9.23

In this subsequent round, we plan to test additional ads, enumerated below. In Estonia, Kazakhstan, and Serbia, we will also re-run the above and below ads in duplicate - one set in Russian, and the other set in the target country’s language. This will allow us to disaggregate responses between Russian and non-Russian respondents. We separate the new ads into two groups - “Dissidents” and “Russian Victims of Ukraine”*:

Dissidents:

Dissident Russians flee for safety. Support refugees by clicking here.

Pro-peace/peace-loving Russians flee from Russia for safety. Support refugees by clicking here.

Countless Russian citizens flee Russia for safety. Support refugees by clicking here.

Countless citizens leave Russia to seek peace. Support refugees by clicking here.

Russian Victims of Ukraine:

Countless Russians flee Ukrainian attacks. Support refugees by clicking here.

Russian victims of Ukrainian violence flee for safety. Support refugees by clicking here.

Countless Russians flee for safety as Ukrainian violence escalates. Support refugees by clicking here.

Countless Russians flee Ukraine for safety. Support refugees by clicking here.

Ukrainian violence forces countless Russians from their homes. Support refugees by clicking here.

**Note: the inclusion of these treatments does not imply an endorsement of their message - we test them here to better understand their appeal compared to other messages*

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Measured variables

We will measure several behavioral and attitudinal outcomes. The outcomes can be divided into two groups: (1) attitudinal measures such as number of likes and shares on the Facebook ads, and (2) the behavioral outcome, which is clicking on the donate page on the ad. Facebook Advertisement Outcomes: Views: How many times/whether a given Facebook Advertisement is viewed by individuals (continuous at treatment level; binary at individual level) Likes: How many times/whether a given Facebook Advertisement is "liked" by individuals (continuous at treatment level; binary at individual level) Clicks: How many times/whether a given Facebook Advertisement is clicked by individuals (continuous at treatment level; binary at individual level) Shares: How many times/whether a given Facebook Advertisement is "shared" by individuals (continuous at treatment level; binary at individual level) All of these outcomes measure participant engagement; however, their costs to the participant vary. Views measure the extent to which our Facebook advertisements reach the public and also establish a baseline denominator with which we can evaluate the other outcomes. Likes are the lowest cost interaction with the Facebook advertisement. We suggest that a "like" represents an endorsement of the message presented in the advertisement. Clicks are a medium-cost interaction. A respondent's click-through represents a certain level of interest in donating. Finally, Shares are a relatively high-cost interaction, as the respondent has to actively decide to endorse the advertisement amongst their peer network. We also plan to create an "engagement index" that combines all three of these outcomes for each experimental condition. The index will measure the total amount of clicks, likes, and shares, as a proportion of total views.

No files selected

Indices

No response

No files selected

Analysis Plan

Statistical models

Our primary outcome measure of interest is clicks – the number of people who click on the advertisement divided by the number of people who see the advertisement. We will compare differences in clicks by using t-tests with unequal variance. We will also use t-tests to measure differences between conditions for other likes, shares, and the overall engagement index. The

formula for calculating the t-statistic divides the standard deviation by the square root of the number of observations - the number of units in the sample: $s \div \sqrt{(n)}$. Take the value from subtracting μ from x-bar and divide it by the value from dividing s by the square root of n: $(\bar{x} - \mu) \div (s \div \sqrt{[n]})$. In this formula, t is the t-value, $\bar{x}1$ and $\bar{x}2$ are the means of the two groups being compared, s2 is the pooled standard error of the two groups, and n1 and n2 are the number of observations in each of the groups.

Facebook gives us raw aggregate data for the number of people our ads reach and the number of people who click on the ads. To calculate the t-test, we convert each placebo and treatment groups into vectors to get their variances and apply the formula above. We will also attach our R code to this pre-analysis plan to show how we execute these steps. Lastly, we will adjust for multiple comparisons and report these results as well. As a robustness check we will use treatment assignment to the treatment conditions compared to placebo to estimate intention-to-treat (ITT) effects employing randomization inference (RI) (Gerber and Green, 2012). Using RI, we will derive p-values that assess the probability that the treatment effects observed could be drawn from 10,000 alternative random assignments.

For the survey data we collect, our primary outcome measure will be the number of people who click to indicate interest in making a donation after being exposed to the ad in question. We plan to evaluate this data using standard binomial regressions, with baseline demographic data (e.g. age, income, education) as control variables.

No files selected

Transformations

No response

Inference criteria

Statistical significance will be set at $p<0.05$ in two-tailed tests.

Data exclusion

No response

Missing data

In deciding on any additional analysis with attrition on outcomes or missing data for covariates, we will follow the standard operating procedures as designated by Lin and Green (2016) and detailed in Lin, Green and Coppock (2016).

Exploratory analysis

No response

Other

Other

No response