

# Online Appendix

## Sexual-Orientation Discrimination and Biological Attributions: Experimental Evidence from Russia

Experimental Instructions  
(Author's commentary in italics)

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August, 2023

*The following is the invitation text from the survey company (TGM Research)*

**Dear Panelist,**

Based on the information stored in your TGM Panel Russia profile, we believe we have a survey that you will qualify for and earn from.

The survey takes approximately **15** minutes, and if you successfully complete it, your account will be credited with 47 RUB<sup>1</sup>.

The number of interviews we need is limited; if you are interested in participating, please respond as soon as possible. Click on the link below to go directly to the survey: [link]

Your participation is **voluntary**.

Best regards,

TGM Panel Russia

***Block 1: Introduction and Consent***<sup>2</sup>

**About this study**

This study is conducted by researchers from CERGE-EI (Center for Economic Research and

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<sup>1</sup>Rewards were distributed to participants via GCodes vouchers - virtual gift cards that can be redeemed for a range of products or services, e.g. mobile top-ups, travel vouchers etc.

<sup>2</sup>Block names were not displayed to participants.

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Graduate Education - Economics Institute).

The survey is conducted among residents of Russia over 18 years of age and takes about 15 minutes.

**Participation in the survey is purely voluntary and anonymous. All received data will be fully anonymous.**

The participation fee is fixed, will be paid regardless of your choices in the survey and only after the survey is completed. It is important for us that all your answers are as accurate and truthful as possible.

Each person is only allowed to participate in the survey once. If you encounter a technical problem, please do not restart the survey, but contact us at [survey@cerge-ei.cz](mailto:survey@cerge-ei.cz). If participants have further questions about this study, or if they wish to lodge a complaint or concern, they may contact us at [survey@cerge-ei.cz](mailto:survey@cerge-ei.cz).

(You will be allowed to proceed to the next screen after 10 seconds.)

*[page break]*

Consent form:

- I have read the information from the previous page.
- I understand that I may withdraw from the study at any time.
- I understand how to raise a complaint or a concern.
- I understand that I can participate in this survey once.
- **I understand that close attention to the survey is required for my responses to count.**

If you are 18 years of age and older, agree with the statements above, and freely consent to participate in the study, please click on the "I Agree" button to start. - I Agree, - I Disagree

## ***Block 2: Demographics***

Your age range: 18-24, 25-34, 35-44, 45-54, 55-64

Your gender: - Male, - Female

What year were you born? [list]

Which one is the federal district you live in? - Central, - Northwestern, - Southern, - North Caucasian, - Volga, - Ural, - Siberian, - Far Eastern

Which of these describes your current situation more accurately? - Employed full-time, - Employed part-time, - Unemployed, - Housekeeping, - Student, - Other [text]

What is your education level? - Incomplete secondary or below, - Secondary general, - Primary professional or secondary specialized, - Incomplete higher (student), - Bachelors, - Masters, - Postgraduate

What is your marital status? - Married, - Single, - Widowed, - Divorced, - Separated, - Hard to

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answer

Which of the following best describes your sexual orientation? - Heterosexual, - Homosexual, - Bisexual, - Other [text], - Hard to answer

How many children do you have? (Please choose from the list.) [list]

Which of the following best describes your current occupation? - IT, - Service, - Trade, - Finance, - Construction, - Logistics, - Production, - Healthcare, - Art and Design, - Protective Service, - Other [text]

What is your household income level (approximately)? - Less than ₱20,000, - ₱20,000 to ₱49,999, - ₱50,000 to ₱79,999, - ₱80,000 to ₱99,999, - ₱100,000 to ₱199,000, - more than ₱200,000

*The questions were presented individually on separate pages. The options were randomized for the questions where the order is not meaningful.*

### ***Block 3: Elicitation of prior beliefs***

Now we will ask you whether you think a given characteristic is determined by biological factors vs other factors (e.g. education, environment, upbringing etc).

People may have different opinions about these questions. We are only interested in your personal views and preferences.

To choose weights for factors (biological factors vs other factors), please move the slider. Once you move it, you will see percentages displayed on it. Please notice that all ranges of the weights can be chosen (from 0 to 100%): *[a slider for short practice]*

To what extent are a person's musical abilities determined by the following factors? - Biological factors, - Other factors

To what extent are a person's cognitive abilities determined by the following two factors? - Biological factors, - Other factors

To what extent is a person's sexual orientation determined by the following factors? - Biological factors, - Other factors

To what extent is a person's creativity determined by the following factors? - Biological factors, - Other factors

*The questions were presented individually on separate pages and in random order. The options were also randomized.*

### ***Block 4: Attention check***

In online questionnaires like ours, sometimes there are participants who do not carefully read the questions and just quickly click through the survey. This means that there are a lot of random

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answers which compromise the results of research studies.

To show that you read our questions carefully, please do not provide a truthful answer, but choose "Extremely interested" and "Not at all interested" as your answers in the next question.

How interested are you in football?

In online questionnaires like ours, sometimes there are participants who do not carefully read the questions and just quickly click through the survey. This means that there are a lot of random answers which compromise the results of research studies.

To show that you read our questions carefully, please do not provide a truthful answer, but choose "Extremely interested" and "Not at all interested" as your answers in the next question.

How interested are you in football? - Not at all interested, - Slightly interested, - Moderately interested, - Extremely interested

### ***Block 5: Treatment (Information group only)***

Now we will ask you to read the following scientific text:

Researchers have been asking whether different traits are predetermined by some factor or not. For example, many scientists investigate whether genetics, hormones, brain structure or birth order affect the probability of having a homosexual sexual orientation. Professor Ray Blanchard (University of Toronto) found that the more older brothers a man has, the greater the probability is that he will have a homosexual sexual orientation. This is known as the "older brother effect". According to these studies, the odds of being gay increase from 2 percent for the 1st son to 6 percent for the 5th son. Thus, there is a threefold increase. These findings have later been replicated by other researchers and they suggest that sexual orientation has biological roots.

References to the studies of Blanchard and his coauthors are:

1. Blanchard, R. (2001). Fraternal birth order and the maternal immune hypothesis of male homosexuality. *Hormones and Behavior*, 40(2), 105-114.
2. Blanchard, R. et al. (2020). A method yielding comparable estimates of the fraternal birth order and female fecundity effects in male homosexuality. *Proceedings of the Royal Society B*, 287(1923), 20192907.

(You will be allowed to proceed to the next screen after 15 seconds.)

### ***Block 6: Allocation tasks***

You will now be asked to participate in five money allocation tasks.

In each one of these tasks, you will be endowed with 500 RUB and will be asked to allocate this money between two individuals. Let's call them recipients. The recipients will appear on the left and right sides of the screen and will be changed in each task.

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In order to choose the allocations, just move the slider. Once you move it, you will see the allocated amounts displayed as in the following example below (try): [*a short practice task*]

[*page break*]

Your allocation choices will not affect your payment, but they may be decisive for the recipients.

After all participants complete the survey, 20 participants will be randomly selected and one of their choices will be randomly chosen to be implemented. This means that each of your choices may have a real impact on the amount of the payment to the other individual. Therefore, please pay attention and make all your choices carefully.

In each of these tasks, you will be provided with information about the individuals that are involved prior to making your decisions. All individuals have similar level of income. Please also note that none of the individuals will learn your identity.

(You will be allowed to proceed to the next screen after 15 seconds.)

[*page break*]

*There are 5 allocation tasks, which have been displayed to participants individually on separate pages and in random order.*

*Allocation task 1: male same-sex profile vs male different-sex profile*

*Allocation task 2: female same-sex profile vs female different-sex profile*

*Allocation task 3: male different-sex profile vs male different-sex profile*

*Allocation task 4: female different-sex profile vs female different-sex profile*

*Allocation task 5: male different-sex profile vs female different-sex profile*

### ***Block 7: Personality traits***

You now will be asked to consider 4 individuals and will be provided information about them. Please read the information attentively.

We will ask your opinion on the extent a given trait can be attributed to a given individual.

[*page break*]

*Participants were presented with 4 same-sex profiles and were asked the question, "To what extent can the given trait be attributed to this person?". The traits were: creative, reliable, hard-working, family-oriented, career-oriented, persistent, open to a new experience, emotionally stable, risk-lover. The traits were collectively presented on the same page and in random order. The profiles were displayed to participants individually on separate pages and in random order.*

### ***Block 8: Policy support***

Now we will ask a few questions about your opinion on different policies.

[*page break*]

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Do you think abortion should be legal under any circumstances, legal only under certain circumstances or illegal in all circumstances? - Legal under any circumstances, - Legal only under certain circumstances, - Illegal in all circumstances

To what extent do you agree with the following statement? "If a woman does not want to have children, she should have the right to have an abortion." - Disagree, - Somewhat disagree, - Neutral, - Somewhat agree, - Agree, - Hard to answer

To what extent do you think it should be legal for same-sex couples to adopt a child, with the same rights as traditional couples? Should be legal: - Disagree, - Somewhat disagree, - Neutral, - Somewhat agree, - Agree

Do you think same-sex marriages should be recognized by law as valid, with the same rights as traditional marriages? Should be recognized: - Disagree, - Somewhat disagree, - Neutral, - Somewhat agree, - Agree

To what extent is the following statement justifiable? "Cheating on taxes if you have a chance."  
(slider) 1 - never justifiable, 7 - always justifiable

To what extent do you agree with the following statements? Men may use violence to keep their wives in line. A man should use violence to get respect if necessary. Parents may use violence or threats when bringing up their children. A woman should tolerate violence to keep the family together. No-one else should interfere when it comes to violence within a family. - Disagree, - Somewhat disagree, - Neutral, - Somewhat agree, - Agree

*The statements were collectively presented on the same page and in random order.*

*The questions in this block were presented individually on separate pages and in random order.*

### ***Block 9: Elicitation of posterior beliefs (Information group only)***

Now we will ask your opinion on the influence of biological factors on the given traits.

Please move the slider to choose the weights: 0% - biological factors play no role, 100% - the given trait is completely predetermined by biological factors.

Creativity, Sexual orientation, Musical abilities, Cognitive abilities. [a slider for each trait]

*The traits were collectively presented on the same page and in random order.*

### ***Block 10: Post-experiment questions***

In this section, you will be asked the last few questions of this survey. Please read them carefully and respond as truthfully as possible. Remember that your answers are completely anonymous.

Which of these describes you more accurately? - Liberal, - Conservative, - Apolitical, - Other (type), - Hard to answer. *The first three options were presented in random order.*

What is your experience in online survey participation? Please choose the amount of online

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surveys you have participated in. - 0, - 1, ... -10, - more than 10

What do you think the survey was about? (*type*) *This is an open-ended question, with a maximum character limit of 40.*

Did you feel under pressure during any part of the survey? - Yes, -Probably yes, - Probably no, - No, - Hard to answer

Do you know any homosexual person (as a colleague, friend, family member, other)? - Yes, - No, - Hard to say. *The first two options were presented in random order.*

***Block 10: Post-experiment questions, cont. only for the Information group***

During the survey we provided you with scientific information about the origins of sexual orientation.

To what extent do you agree with the following statement?

"I find the information credible and trustworthy."

*A scale from 0 to 7*