

Does political pressure on ‘gender’ engender danger for scientific research?

Evidence from a randomized controlled trial

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ABSTRACT

We detect a significant negative effect of mentioning ‘gender’ as a research topic on conducting academic research in Hungary. Using a randomized information treatment involving a comprehensive sample of Hungarian education providers we find that they are less willing to cooperate in a gender related future research compared to a research without this specification. Our results also indicate that this negative sentiment is clearly against gender and not against any topic covering social inequalities in general.

JEL codes: C90, C93, H39, I28, J16

Keywords: Randomized experiment, Gender, Information treatment

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Előítéletek és tudomány – avagy a "gender" szó hatása a tudományos kutatásra

Egy randomizált kísérlet eredményei

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ÖSSZEFOGLALÓ

A tanulmány azt találja, hogy a 'gender', mint kutatási téma explicit megjelölése megnehezíti az ilyen kutatások elvégzését Magyarországon. Egy, a magyar iskolafenntartók átfogó mintáján végzett randomizált információs kísérlet eredményei alapján beigazolódott, hogy ezen intézmények szignifikánsan alacsonyabb valószínűséggel járulnak hozzá egy jövőbeli kutatásban való részvételhez akkor, ha annak van valamilyen gender-aspektusa, ahhoz képest, mintha nem lenne. Több kontrollcsoport használatával az is megmutatható, hogy az elutasítás egyértelműen a gender-különbségek ellen és nem általánosságban a társadalmi különbségek ellen szól.

JEL: C90, C93, H39, I28, J16

Kulcsszavak: Randomizált kísérlet, Gender, Információs kezelés

Introduction

In October 2018 the Hungarian government revoked accreditation for gender studies programs in Hungary (Kent and Tapfumaneyi, 2018) after giving the universities affected by the ban only 24 hours to comment on the bill related to this measure in August. Before this, the government actively generated a sentiment against gender studies, framing gender topics as an ideology rather than a scientific field of study (Szél, 2018). Scientists doing gender, migration and LBMQT related research were listed with their names and pictures on one of the publicly pro-government weekly's online portal two months before this policy act (Figyelő.hu, 2018), and there were numerous other mentions of the 'gender' in negative contexts by high-ranked government officials before (and after) the accreditation of gender-studies programs was revoked.

It is important to note that in Hungary, the meaning of 'gender' is much more narrow and more political than its everyday meaning in English, where 'gender' many times seems exchangeable with 'sex'. In Hungarian, the word *gender* is often considered a feature of the LGBTQ community and used in a political context.

Randomized information treatments or 'nudges' have been proven effective and relatively cheap tools for discovering behavioural patterns in social science. These 'nudges' have been extensively used to help research on various subjects, from tax compliance through educational issues (The Behavioural Insights Team, 2019) to discovering gender discrimination patterns on the labour market (Booth and Leigh, 2010; Bygren et al., 2017). Utilizing a randomized information treatment,¹ we want to see whether this pressure on gender-related topics translates into a backlash against conducting academic research in Hungary.

Research design and data

Our aim is to assess the willingness to cooperate in future research among Hungarian education providers, given that gender is a topic of the research.

Conducting this research was made possible by an ongoing project of the Institute of Economics of the Centre for Economic and Regional Studies of the Hungarian Academy of Sciences. In this

¹ The experiment is registered at The American Economic Association's registry for randomized controlled trials: Horn, Daniel, Hubert Kiss and Tünde Lénárd. 2019. "Does gender engender danger for scientific research?." AEA RCT Registry. January 04. <https://doi.org/10.1257/rct.3770-1.0>

project, we have been carrying out a field experiment in a sample of Hungarian secondary schools on how economic preferences (time, risk, social and competitive preferences) affect school performance. As substantial gender difference in some of these preferences (most notably risk and competitive preferences) have been found in the literature (Niederle, 2016), gender is a natural part of our investigation. We used this feature when we sent out letters to secondary education providers asking them about their willingness to facilitate research in their schools.

We created three groups and randomly assigned education providers to them. Three sorts of letters were sent out: one treatment and two control groups. The one-page long letters were different in only a half-sentence within the first paragraph (see the original Hungarian as well as the English translation of the letters in the Appendix A). The baseline sentence was:

“The purpose of the research, funded by the National Research, Development and Innovation Office (NKFIH), is to explore the relationship between the non-cognitive skills of Hungarian secondary-school students and their school performance.”

For the treatment group letter, we added *“with particular reference to differences between sexes (gender)”* at the end of this sentence, while in the letter for the second control group we added *“with particular reference to social differences.”*

We use the control groups to test whether the backlash is due to gender only, and not in general to any research on social inequalities.

We explicitly used the word ‘gender’ in English in the treatment group as a trigger, as this exact word is used in the popular communication in the Hungarian media, albeit the literal translation of gender (sex/saxes) is *nem/nemek* in Hungarian. The aim was to use this information nudge to arouse negative sentiments, if there are any, towards the research of differences between sexes.

We were interested in whether the rate of willingness to cooperate in a future lab-in-the field experiment varies among the three groups.

Our hypotheses are the following:

H1: The education providers in the treatment group are significantly less willing to cooperate than those in the baseline group.

H2: The education providers in the treatment group are significantly less willing to cooperate than the institutions in the social status focused group.

All data (including contact data) related to the education providers were retrieved from the Public Education Information System of Hungary.² We took only those institutions into account that run at least one secondary school (either academic, mixed or vocational school). There are 341 education providers in total that fulfill this criterion. The random assignment to the three groups was done by a computer generated random number, resulting in the following group numbers:

treatment group (gender-focused) – 113 education providers;

social status focused control group – 107 education providers;

baseline control group – 121 education providers.

Each provider received a single email. E-mail bounce rates were around 3-6% in every group (there were 17 bounces out of the 341 in total), and there is no significant difference in these rates across groups, even if we merge the two control groups and compare it to the treated.

To check covariate balance, we ran a multinomial probit model of the randomized assignment on the region of operation in Hungary (7 categories) and the type of the education provider (government; local government; church; private; other) and found no significant differences between the groups (see appendix Table B.1 for details).

Results

The raw consent rates are 6.19% in the gender-focused group, 13.08% in the social status focused group and 14.88% in the baseline group. While the rates in the two control groups are not significantly different, the consent rate of the gender-focused group is significantly lower than the other two.³

To capture the Average Treatment Effect (ATE) of being assigned to the treated group on the consent rate, we estimate simple linear regression models, where the dependent variable is the *consent* (0 if no-reply or if no-consent, 1 if consents), and the independent variable of interest is the assignment to the treated and control groups.

² Oktatási Hivatal: *Működő köznevelési intézmények feladatellátási helyei*. Köznevelési közérdekű adatok publikálása. Retrieved Nov. 15, 2018, from: <https://dari.oktatas.hu/index.php?id=kozerdeku>

³ Of the total 341 education providers 39 have replied positively and 4 negatively to our request (one in the treatment group, one in the social status control group and two in the baseline control group). The remaining 298 did not reply. As our hypothesis is about cooperation, we will treat the 4 negative replies as well as the 298 non-replies as non-cooperation. This choice does not affect the conclusion of our study.

Table 1 shows the results of these linear probability models.⁴ Education providers assigned to the baseline control group are cca. 8.7% points more likely to consent than those in the treated group, see first column in Table 1. The difference between the treatment and the social status focused groups is smaller and insignificant, but still sizeable at around 7% points. Considering that the consent rate of the treated group is around 6,2%, these effect sizes are large: education providers in the control groups were over twice more likely to consent to our request than providers in the treatment group.

When sending out the e-mails we have requested a feedback on the receipt of the letter. Albeit this was an automated request, the reader must have actively allowed the system to notify us about the receipt. The reading rates were as follows: (1) treatment group: 29.2%; (2) social status control group: 36.45%; (3) baseline control group: 37.19%. There is a marginally significant 7-8% points difference between the treatment and the control groups.

As sending the feedback requires active contribution, this feedback is probably endogenous to our treatment. If an education provider encounters an uncomfortable topic, it may not send a read-receipt on purpose. Therefore, we cannot rule out the possibility that the reading rate is lower in the treatment group, because these education providers refused to confirm even that they have received our letter.

Table 1 – Linear probability models on the effect of treatment on consent to research

Consent to research	(1)	(2)
	ATE	CATE
email was read		0.212*** (0.0511)
<i>Group:</i>		
social status	0.0689 (0.0428)	
baseline control	0.0868** (0.0415)	
social status * read email		0.147** (0.0648)
baseline control * read email		0.188*** (0.0628)
Constant	0.0619** (0.0299)	0 (0.0183)

⁴ Note that marginal effects at means from probit models offer the same results, see appendix Table C.1.

Observations	341	341
Standard errors in parentheses		
*** p<0.01, ** p<0.05, * p<0.1		

Nevertheless, using this variable we can still estimate a conditional average treatment effect (CATE), to check whether our treatment had any effect even after the recipients have read the letter (see second column in Table 1). Around 20% of those, who read the e-mail and were assigned to the treatment are willing to consent to our request. This rate is much higher in both of the control groups: the social status control group is around 15% points, while the baseline control group is around 19% points more likely to cooperate in future research.⁵

Conclusion and discussion

In this paper we detected a significant negative effect of mentioning gender as a research topic on conducting academic research in Hungary. Education providers are significantly less likely to cooperate in future research if it is gender related compared to when it is not. The difference also exists between the consent rates of the treated and the social status focused groups indicating that the aversion is more against gender and not against social inequalities in general.

As we pointed out, ‘gender’ became politicized before our experiment begun. Although it is clear that gender related topics are avoided by education providers, making it harder to do academic research, the link between the tone of governmental communication and this prejudice against gender-related research is not necessarily clear. It requires further research to find the exact channels of the treatment effect.

Acknowledgments

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⁵ Note that results do not change even if we add covariates to our model. See appendix Table C.2

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Appendices

Appendix A – The original Hungarian and English translation of the letter sent out to the education providers (half sentence in bold: included only in the treatment group letter; half sentence in italic: included only in the social status focused control group letter)

Tisztelt Hölgym/Uram!

Egy, a Magyar Tudományos Akadémia Közgazdaság- és Regionális Tudományi Kutatóközpontjának (MTA KRTK) Közgazdaságtudományi Intézetében készülő kutatás kapcsán keressük Önt. A Nemzeti Kutatási, Fejlesztési és Innovációs Hivatal (NKFIH) által finanszírozott kutatás célja, hogy feltérképezze a magyar középiskolai diákok nem-kognitív képességeinek és iskolai eredményeinek összefüggéseit, **különös tekintettel a nemek közötti (gender) különbségekre** /különös tekintettel a társadalmi csoportok közötti különbségekre. Ennek első lépéseként közgazdasági kísérleteket szeretnénk lefolytatni a magyar gimnáziumok, szakgimnáziumok és szakközépiskolák diákjainak mintáján. Ahhoz kérnénk a hozzájárulását, hogy az Ön által képviselt intézmény fenntartásában álló középiskolák vezetését a közeljövőben közvetlenül is megkereshessük.

A kísérletben a diákoknak különböző szituációkban kell döntéseket hozniuk. Terveink szerint a diákok négy különböző nem-kognitív jellemzőjét, az idő-, kockázati-, társas- és versengési preferenciáit mérjük fel ösztönzött módon. A diákok a kísérlet végén vásárlási utalványt kapnak, az összeg pedig a döntéseiktől, illetve a játék során nyújtott teljesítményüktől is függ majd. A kísérlet maximum 45 percet venne igénybe osztályonként. A felmérés számítógépen zajlik, amelyeket – ha igény van rá – mi biztosítunk. A kísérlet minden esetben anonim, a részvétel önkéntes és bármikor megszakítható.

Szeretnénk a magyar középfokú oktatás minél szélesebb mintáján elvégezni a kísérleteket, így számos gimnáziumi, szakgimnáziumi és szakközépiskolai telephellyel kell majd felvennünk a kapcsolatot. Kérjük, járuljon hozzá, hogy az Ön által képviselt fenntartóhoz tartozó iskolák közül is megkereshessünk egy párat. Mivel törekszünk a reprezentativitásra, így nem garantálható, hogy az Önökhöz tartozó bármely intézmény be is kerül a mintába, ez többek között a fenntartóktól kapott visszajelzések függvénye is lesz majd.

A kísérleteket februárban tervezzük elkezdni. Amennyiben igényli, egy részletesebb leírást is tudunk Önnek küldeni a kutatás előzményéről, a kutatási tervről illetve a lebonyolítás menetéről. Hozzájárulásukat, kérdéseiket, illetve észrevételeiket a [\[...@krtk.mta.hu](mailto:[...@krtk.mta.hu) e-mail címre tudják elküldeni.

Bízunk mihamarabbi visszajelzésében és kérésünk pozitív elbírálásában!

Köszönettel:

.....

Dear Sir or Madame,

We are contacting you regarding a research project of the Institute of Economics of the Centre for Economic and Regional Studies of the Hungarian Academy of Sciences. The purpose of the research, funded by the National Research, Development and Innovation Office (NKFIH), is to explore the relationship between the non-cognitive skills of Hungarian secondary-school students and their school performance, **with particular reference to differences between sexes (gender) / with particular reference to social differences**. As a first step, we would like to conduct economic experiments with a sample of students from Hungarian secondary schools. We would like to ask for your consent so that we can contact the management of the secondary schools maintained by the education provider you represent.

In the experiment, participants will have to make decisions in different situations. We plan to measure four different non-cognitive characteristics – the so-called time-, risk-, social- and competitive preferences – of the students in an incentivized way. Students will receive vouchers at the end of every session, but the exact amount will depend on their decisions and their performance during the game. The experiment would last a maximum of 45 minutes per class. The whole experiment is computer based, we can provide laptops if needed. In all cases the experiment is anonymous, participation is voluntary and can be terminated at any time.

Since we would like to involve a wide range of Hungarian secondary school students in our research, we will need to contact many high school-, vocational secondary school- and vocational school sites. Please give us your consent to contact some of the schools maintained by the institution you represent. As we strive for representative results, it cannot be guaranteed that any

of your schools will be included in the sample, the final composition of which will depend on the feedback received from the education providers.

The experiments are scheduled to begin in February. We can send you a more detailed description of the research history, the research plan and the implementation process, if you wish. Contributions, questions or comments can be sent to [...] @ krtk.mta.hu.

Thank you for taking our request into consideration, we look forward to receiving your reply soon!

Sincerely:

.....

Appendix B – Covariate balance, baseline: treated group

Table B.1: Covariate balance, multinomial probit

	(2)	(3)
	social_status	control
<i>Category of the education provider:</i>		
church	0.182 (0.307)	0.489 (0.308)
private	-0.411 (0.264)	-0.00264 (0.264)
other	-0.785 (1.119)	-10.46 (2.971e+07)
<i>Region:</i>		
Southern Transdanubia	-0.467 (0.579)	0.723 (0.546)
Central Transdanubia	-0.102 (0.464)	0.309 (0.475)
Central Hungary	-0.298 (0.349)	0.311 (0.364)
Western Transdanubia	0.323 (0.552)	0.612 (0.571)
Northern Great Plain	-0.258 (0.436)	-0.141 (0.463)
Northern Hungary	-0.930* (0.482)	-0.162 (0.473)
bounced email	0.150 (0.504)	-0.339 (0.539)
Constant	0.384 (0.357)	-0.252 (0.381)

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

Appendix C – Additional ATE and CATE models

Table C.1 – Basic probit models calculating ATE and CATE

Consent to research	(1) basic_probit ATE	(2) basic_probit CATE
email was read		0.136* (0.0800)
<i>Group:</i>		
social status	0.0689* (0.0397)	
control	0.0868** (0.0395)	
<i>Group#read:</i>		
social status		0.155 (0.111)
control		0.194* (0.106)
Observations	341	117

Standard errors in parentheses
 *** p<0.01, ** p<0.05, * p<0.1

Table C.2 – Extended Linear Probability Models (LPM) and extended probit models calculating ATE and CATE

Consent to research	(1) extended_LPM ATE	(2) extended_probit ATE	(3) extended_LPM CATE	(4) extended_probit CATE
email was read			0.192*** (0.0541)	0.120 (0.0823)
<i>Group:</i>				
social status	0.0435 (0.0423)	0.0538 (0.0379)		
control	0.0780* (0.0410)	0.0842** (0.0396)		
<i>Group*read:</i>				
social status*read			0.140** (0.0661)	0.128 (0.115)
control*read			0.186*** (0.0647)	0.179 (0.113)
<i>Category of the education provider:</i>				
church	-0.0917* (0.0477)	-0.0980* (0.0591)	-0.0199 (0.0439)	-0.0124 (0.102)
private	-0.206*** (0.0414)	-0.209*** (0.0472)	-0.0564 (0.0409)	-0.180 (0.115)
other	-0.198 (0.183)		-0.152 (0.164)	
<i>Region:</i>				
Southern Transdanubia	0.0560 (0.0869)	0.0513 (0.0912)	0.00749 (0.0792)	-0.0111 (0.197)
Central Transdanubia	0.00936 (0.0733)	-0.00184 (0.0749)	-0.0214 (0.0661)	-0.0782 (0.180)
Central Hungary	-0.0207 (0.0557)	-0.0287 (0.0541)	-0.0110 (0.0504)	-0.0289 (0.148)
Western Transdanubia	-0.0161 (0.0836)	-0.0189 (0.0740)	-0.0232 (0.0753)	-0.0578 (0.196)
Northern Great Plain	0.0303 (0.0703)	0.0291 (0.0718)	0.0128 (0.0632)	0.0112 (0.168)
Northern Hungary	-0.0266 (0.0750)	-0.0193 (0.0722)	-0.0366 (0.0673)	-0.0970 (0.188)
Constant	0.204*** (0.0627)		0.0519 (0.0571)	
Observations	341	338	341	116

Standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

