Do Anti-Corruption Educational Campaigns Reach Students?

Evidence from two cities in Russia and Ukraine

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Abstract. The authors investigate the effect of anti-corruption educational materials—an informational folder with materials designed by Transparency International—on the willingness of students to participate in an anti-corruption campaign and their general judgment about corruption in two cities in Russia and Ukraine by conducting experiments. During a survey of 350 students in Khabarovsk, Russia, and 600 students in Lviv, Ukraine, young people were randomly exposed to either a folder with information about the negative effects of corruption in general and in the higher education system in particular (treatment group), or a folder with information irrelevant to corruption (control group). The effects were statistically significant in the total sample in Khabarovsk and only in some social groups in Lviv. The results might be interesting not only for scholars, but also for policy makers and practitioners.

Keywords: Anti-Corruption Campaigns, Corruption, Academic Integrity, Experiments, University, Students, Russia, Ukraine.

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1. Introduction

This paper compares the effectiveness of anti-corruption interventions at universities in Khabarovsk, Russia, with the results at universities in Lviv, Ukraine, which were published in an earlier study by Denisova-Schmidt, Huber, and Prytula [2015]. Experiments on corruption are new trends in the study of this phenomenon. One of the reasons behind this development is that these experiments offer more convinc-

ing causal explanations of the results compared to other techniques (see, for example, discussions in [Serra, Wantchekon, 2012; Findley, Nielson, Sharman, 2013; Holmes, 2015]).

Russia and Ukraine represent very interesting cases for studying this question. They both possess very good and longstanding higher education systems and they both are among the most corrupt countries in the world.[1] Both countries have undergone several significant changes in the recent past, including the transition period following the breakup of the USSR, the Bologna process, and the standardization of the university admissions procedure (cf. [Denisova-Schmidt, Leontyeva, Prytula 2014a, 2014b]). Moreover, both countries have implemented some important anti-corruption initiatives and laws in the area of higher education. For example, the replacement of entrance examinations with new unified exams—the *Edinyi Gosudarstvennyi Eksamen* (EGE*)* (Engl.: Unified State Exam) and *Vneshnee nezavisimoe otsenivanie* (VNT*)* (Engl.: External Independent Assessment)—which has reduced bribery at the admissions level [Denisova-Schmidt, Leontyeva 2014; Klein 2014].

Using materials developed by Transparency International, we tested the effects of anti-corruption campaigns among students at selected universities in two regional centers—Khabarovsk and Lviv—in the first half of 2015. In particular, we examined the willingness of students to participate in an anti-corruption campaign by distributing flyers to other students on campus. As a social group, students are one of the major forces in fighting against corruption [Altbach, Klemencic 2014; Klemencic 2014]. Taking into account the role of students in society, the aim of our study is to measure the effectiveness of an anti-corruption intervention among students in Russia and Ukraine and their attitude towards this phenomenon by conducting an experiment.

When working on corruption in higher education, Russian scholars usually distinguish between "corruption" (often only monetary corruption) and "cheating" [Golunov, 2014]. In our paper we define corruption in broader terms as "the abuse of entrusted power for private gain" (Transparency International) as well a the lack of academic integrity, including the use of cheat sheets, copying from others during exams, plagiarism, "academic collusion" [Titaev, 2012], and other forms (see, for example, [Denisova-Schmidt, 2013, 2015; Galitskii, Levin, 2008; Leontyeva, 2010a; Leontyeva, 2010b; Rimskii, 2010, 2011a, 2011b; Titaev, 2005; Osipian, 2012a, 2012b]; for more information, see the discussion on defining corruption in [Denisova-Schmidt, Huber, Leontyeva, 2015]).

The remainder of this paper is organized as follows: Chapter 2 outlines the research design, Chapter 3 describes the methods applied and the results received, and Chapter 4 finishes with a conclusion.

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[1] Transparency International ranked Russia 136th and Ukraine 142nd in its 2014 Corruption Perception Index of 175 countries.

Table 1. **Student Profile**

	Khabarovsk	Lviv
Female students	54.3 (n = 190)	42.2 (n = 253)
Male students	45.7 (n = 160)	57.8 (n = 347)
Social sciences	35.4 (n = 124)	34.7 (n = 208)
Technical sciences	48.0 (n = 168)	42.2 (n = 253)
Natural sciences	2.6 (n = 9)	10.3 (n = 62)
Humanities	14 (n = 49)	12.7 (n = 76)

2. Research design

Students were drawn from universities in Khabarovsk, Russia, and Lviv, Ukraine. Khabarovsk is a major city located in the Russian Far East with a population of more than 600,000. Lviv is a major city in the western part of Ukraine with a population of more than 700,000. Khabarovsk hosts 23 universities, while Lviv is home to 26. Our sample includes only respondents studying at state universities in four main subject areas representing a majority of all students: social, natural, and technical sciences, and the humanities (Table 1). We considered students studying at public universities on-site with at least three to five prior semesters (*2-oi kurs* or *3-ii kurs*). The representative study was conducted in early 2015 and had 950 student-participants in the survey: 350 respondents from Russia and 600 from Ukraine. Both genders were represented as follows: 54.3% (n=190) female students and 45.7% (n=160) male students from Khabarovsk, and 42.2% (n=253) female students and 57.8% (n=347) male students from Lviv (Table 1). The participating students were all approximately the same age (19–20 years). Students were approached by the interviewer. The face-to-face interviews were conducted on the university campuses. The study was conducted completely in the native language of all the persons involved—Russian or Ukrainian, respectively. No language-based misunderstandings are expected. At a particular point in the interview, students were randomly provided with either a folder with information about the negative effects of corruption in general and in the higher education system in particular (treatment group)[2], or a folder with information irrelevant to corruption (control group). Randomization was made on a timing rule: The interviewer looked at his or her watch and if it showed an even-numbered minute, the student was put into the treatment group and provided with anti-corruption materials, otherwise the respondent was assigned to

[2] The anti-corruption folder was based on materials designed by Transparency International (see Appendix for further details).

the control group and received corruption-irrelevant information (see more in [Denisova-Schmidt, Huber, Prytula, 2015]).

Table 2 and Table 3 report the means of selected personal characteristics of the respondents across treatment states for both Khabarovsk and Lviv: 314 individuals (90% of the sample) in Khabarovsk were without missing information in any of the covariates and 556 individuals (93% of the sample) in Lviv were without missing information in any of the covariates. The data provided a profile of the students who participated in the survey—their backgrounds (gender, family, income, place of birth, and residence), their motives for obtaining a higher education (to get a good education, to get a good job in the future, to obtain a diploma), their field of study, including the year and program involved (state stipend or self-payer), and the mean differences and p-values of two sample t-tests. The statistical insignificance of most of these differences confirms that the randomization of the treatment was correct and that the minor item nonresponse issue did not influence the randomization. Alone, the mean differences in being inscribed in one of the universities and in the field of social science in Khabarovsk, as well as in the "study program without tuition fees" group in Lviv are significant at the 5% level, while none of the remaining variables are significantly different across treatment states at the 10% level.

3. Methods and results

As in [Denisova-Schmidt, Huber, Prytula 2015], we evaluated the impact of the intervention based on three econometric methods. First, we considered the mean differences in the outcome variables across treatment states. If the treated and control groups are comparable in any characteristics that potentially affect the outcomes as intended by the randomization of the treatment, then taking mean differences is an unbiased estimate of the intervention's causal effect. Even in experiments, some (hopefully minor) differences in characteristics across treatment groups may occur, in particular when the sample size is small. We therefore also considered two methods that account for differences in any of the observed characteristics displayed in Table 2 and Table 3.

The first estimator is an OLS regression of the outcome of the treatment and the observed characteristics,[3] which linearly controls for differences in the latter variables. However, the potential drawbacks of OLS are its linearity assumption, which may be violated in

[3] Depending on the outcome variable considered, different observed characteristics were significant in different regressions. Among those variables that are more frequently significant than other ones is the choice of university and/or field of study, gender, family background (e. g. parent education and wealth), study year, reasons for studying, and paying a fee. However, there is no characteristic that was significant in all of the regressions.

Table 2. **Mean covariate values by treatment status (Khabarovsk)**

Variable	$T = 0$	$T = 1$	Diff	p-value
Gender: male (binary)	0.444 (0.042)	0.453 (0.038)	0.008 (0.057)	0.881
Birth year	1994.757 (0.069)	1994.700 (0.070)	−0.057 (0.098)	0.562
Family consists of both parents (binary)	0.819 (0.032)	0.800 (0.031)	−0.019 (0.045)	0.663
At least one parent working (binary)	0.986 (0.010)	0.982 (0.010)	−0.004 (0.014)	0.790
Both parents have at most intermediate education (binary)	0.299 (0.038)	0.318 (0.036)	0.019 (0.052)	0.717
Number of siblings	0.931 (0.063)	0.959 (0.070)	0.028 (0.094)	0.765
Self-assessed family wealth: satisfactory (binary)	0.222 (0.035)	0.182 (0.030)	−0.040 (0.046)	0.384
Self-assessed family wealth: good (binary)	0.556 (0.042)	0.612 (0.037)	0.056 (0.056)	0.316
Self-assessed family wealth: very good (binary)	0.174 (0.032)	0.135 (0.026)	−0.038 (0.041)	0.353
Main reason for studying: good education (binary)	0.368 (0.040)	0.394 (0.038)	0.026 (0.055)	0.637
Main reason for studying: to find a good job (binary)	0.465 (0.042)	0.506 (0.038)	0.041 (0.057)	0.475
Main reason for studying: to obtain a diploma (binary)	0.104 (0.026)	0.059 (0.018)	−0.045 (0.031)	0.148
University id: 1 (binary)	0.431 (0.041)	0.388 (0.037)	−0.042 (0.056)	0.449
University id: 2 (binary)	0.417 (0.041)	0.406 (0.038)	−0.011 (0.056)	0.847
University id: 3 (binary)	0.035 (0.015)	0.094 (0.022)	0.059 (0.027)	0.030
Study field: humanities (binary)	0.132 (0.028)	0.147 (0.027)	0.015 (0.039)	0.701
Study field: social sciences (binary)	0.417 (0.041)	0.294 (0.035)	−0.123 (0.054)	0.024
Study field: engineering (binary)	0.431 (0.041)	0.524 (0.038)	0.093 (0.056)	0.101
Urbanity of residential area before entering university (1: city,...,7: village)	3.569 (0.136)	3.765 (0.129)	0.195 (0.188)	0.300
Study program without tuition fees (binary)	0.618 (0.041)	0.635 (0.037)	0.017 (0.055)	0.754
Study year (1or 2)	2.375 (0.043)	2.429 (0.040)	0.054 (0.058)	0.353

Note: The reference category for "self-assessed family wealth" is "basic"; the reference category for "university id" is "4"; the reference category for "study field" is "natural sciences". *P*-values are based on *t*-tests which allow for unequal variances across treatment groups.

Table 3. **Mean covariate values by treatment status (Lviv)**

Variable	$T = 0$	$T = 1$	Diff	p-value
Gender: male (binary)	0.554 (0.030)	0.578 (0.029)	0.024 (0.042)	0.577
Birth year	1995.079 (0.051)	1995.097 (0.052)	0.018 (0.073)	0.802
Family consists of both parents (binary)	0.880 (0.020)	0.855 (0.021)	–0.025 (0.029)	0.376
At least one parent working (binary)	0.959 (0.012)	0.962 (0.011)	0.003 (0.017)	0.850
Both parents have at most intermediate education (binary)	0.371 (0.030)	0.298 (0.027)	–0.073 (0.040)	0.068
Number of siblings	1.004 (0.056)	1.083 (0.051)	0.079 (0.076)	0.295
Self-assessed family wealth: satisfactory (binary)	0.341 (0.029)	0.332 (0.028)	–0.009 (0.040)	0.830
Self-assessed family wealth: good (binary)	0.517 (0.031)	0.522 (0.029)	0.006 (0.042)	0.894
Self-assessed family wealth: very good (binary)	0.064 (0.015)	0.069 (0.015)	0.006 (0.021)	0.794
Main reason for studying: good education (binary)	0.371 (0.030)	0.315 (0.027)	–0.056 (0.040)	0.166
Main reason for studying: to find a good job (binary)	0.461 (0.031)	0.522 (0.029)	0.062 (0.042)	0.146
Main reason for studying: to obtain a diploma (binary)	0.105 (0.019)	0.097 (0.017)	–0.008 (0.026)	0.756
University id: 1 (binary)	0.367 (0.030)	0.329 (0.028)	–0.038 (0.040)	0.344
University id: 2 (binary)	0.075 (0.016)	0.097 (0.017)	0.022 (0.024)	0.355
University id: 3 (binary)	0.056 (0.014)	0.087 (0.017)	0.030 (0.022)	0.164
Study field: humanities (binary)	0.135 (0.021)	0.125 (0.019)	–0.010 (0.029)	0.720
Study field: social sciences (binary)	0.367 (0.030)	0.349 (0.028)	–0.018 (0.041)	0.667
Study field: engineering (binary)	0.412 (0.030)	0.419 (0.029)	0.007 (0.042)	0.873
Urbanity of residential area before entering university (1: city,...,7: village)	4.528 (0.119)	4.426 (0.117)	–0.102 (0.167)	0.539
Study program without tuition fees (binary)	0.757 (0.026)	0.668 (0.028)	–0.089 (0.038)	0.021
Study year (1or 2)	1.547 (0.031)	1.509 (0.029)	–0.038 (0.042)	0.369

Note: The reference category for "self-assessed family wealth" is "basic"; the reference category for "university id" is "4"; the reference category for "study field" is "natural sciences". *P*-values are based on *t*-tests which allow for unequal variances across treatment groups.

Table 4. **What is corruption to you?**

Approach	Definition
Negative approach	Evil A crime
Pragmatic approach	A necessity A way of solving problems
Positive approach	A way of getting income Compensation for low wages
Neutral approach	Temporary situation Part of life
"Russian/Ukrainian" approach	Tradition National peculiarity

reality, and the omission of interactions between the treatment and the characteristics.[4] For this reason, we also considered the so-called inverse probability tilting (IPT) method as proposed by Graham et al (2012).[5] This semi-parametric method reweights observations by the inverse of the treatment propensity score (the conditional probability to receive the treatment given the observed characteristics) before taking mean differences, and does not restrict the outcome model to be linear. An attractive feature of IPT (compared to alternative propensity score weighting approaches) is that it exactly balances the means (or even further moments) of the covariates of interest in such a way that the covariate means are identical in the treated and control groups.

Tables 5a and 5b demonstrate the results for the total sample. The second column shows the various mean outcomes among controls, while the third shows the mean differences between treated and control groups. The fourth and fifth columns contain the heteroscedasticity robust standard errors and p-values. The OLS and IPT estimates can be found in columns 6–8 and 9–11, respectively.

The outcomes of interest we evaluated were the effect of the anti-corruption folders against the corruption-irrelevant folders on the willingness of students to participate in an anti-corruption campaign by distributing flyers to other students on campus (binary indicator). For a positive response to the proposition (willingness=1), students left their mobile numbers and/or e-mail addresses so that they might be contacted again. Moreover, we looked at the impact of folders on

[4] For instance, if the true probability model is actually nonlinear, incorrectly imposing the linearity assumption in OLS regression may entail predictions that lie outside the theoretically possible probabilities between 0 (or 0%) and 1 (or 100%).

[5] To this end, we use the stata command "ipTATE" provided by the authors.

student assessments of corruption in general. Students were asked to define "corruption" by choosing "in the first place" and "in the second place" (Table 4).

Each option may be represented by a dummy variable, with all of the dummy variables adding up to 1 if any of the possible definitions were picked (only answers highlighted as "in the first place" were considered). By the way the question was asked, the treatment's short run impact on the *relative* importance of the various options might be assessed, rather than the *absolute* (i. e. cardinal) change in importance. 48 observations in Khabarovsk (13.7%) and 9 observations in Lviv (1.5%) did not pick any option, resulting in their dummy variables remaining at zero.

All of these methods—mean difference, OLS and IPT—suggest that the willingness to participate in anti-corruption activities ("would participate in a campaign") is significantly affected by the intervention in the total sample in Khabarovsk (the increase is by around 9 points), while none of the methods suggests a willingness to participate in Lviv.[6]

The intervention did not have any significant effects on definitions of corruption in either city, however, nor did it have an effect on the "negative" (corruption is "evil" and "a crime"), "positive" (corruption is "a way of getting income" and "compensation for low wages"), and "pragmatic" (corruption is "a necessity" and "an everyday occurrence") approaches. The intervention increased the view that corruption is a "part of the system" in both societies: "corruption is a tradition" increased by 2 points in Khabarovsk and by 4 points in Lviv. Moreover, students in Lviv see corruption as "a part of life" (increase by 2 points) and do not consider corruption as a "temporary phenomenon" (decrease by 2–3 points).

Our data show significant differences between both cities in terms of the willingness to participate in the campaign ("would participate in campaign")—where Russian students show more enthusiasm—and in terms of the definition of corruption ("corruption is a crime", "corruption is a means to solve problems"), both of which are more present among students in Khabarovsk. This might be explained by a range of factors, including differences in the socio-economic composition of the students as well as the timing: the study was conducted during a difficult time for Ukraine, as the country faced political and economic challenges, and the respondents seemed to be worn out from political and social activism. While unsuccessful European integration and the war in Donbass were on the agenda in Ukrainian mass media, one of the main topics in Russian media was the fight against corruption: several high-ranking officials were accused of extortion and bribes, including several cases in the Russian Far East, including

[6] We should acknowledge that the treatment is rather small in scale, and that we cover only short-term effects in our study. More research is needed on this topic.

Table 5. **Effects in the total sample**

	Control mean	Mean difference			OLS			IPT		
		Effect	*se*	*p*-value	Effect	*se*	*p*-value	Effect	*se*	*p*-value
a. KHABAROVSK										
Would participate in campaign	0.14	0.09	0.04	0.03	0.09	0.04	0.03	0.09	0.04	0.02
Corruption is										
...evil	0.12	–0.05	0.03	0.12	–0.05	0.03	0.15	–0.05	0.03	0.11
...a crime	0.48	0.04	0.05	0.47	0.04	0.06	0.48	0.02	0.05	0.65
...a necessity	0.02	–0.02	0.02	0.56	–0.02	0.02	0.23	–0.01	0.01	0.29
...a means to solve problems	0.07	0.03	0.03	0.87	0.03	0.03	0.38	0.03	0.03	0.32
...a means of income	0.06	0.03	0.03	0.42	0.03	0.03	0.37	0.03	0.03	0.30
...a compensation for low salaries	0.02	0.00	0.01	0.84	0.00	0.02	0.91	0.00	0.02	0.76
...a part of life	0.03	0.02	0.02	0.97	0.02	0.02	0.40	0.01	0.02	0.41
...a temporary phenomenon	0.01	0.00	0.00	0.91	0.00	0.00	0.98	0.00	0.00	1.00
...a tradition	0.00	0.02	0.00	0.08	0.02	0.00	0.09	0.02	0.00	0.06
...a national particularity	0.04	–0.01	0.02	0.57	–0.01	0.20	0.60	–0.01	0.02	0.60
Observations	192	350			314			314		
b. LVIV										
Would participate in campaign	0.09	0.00	0.02	0.93	0.01	0.02	0.63	0.01	0.02	0.61
Corruption is										
...evil	0.10	–0.01	0.02	0.69	0.01	0.03	0.84	0.00	0.03	0.95
...a crime	0.42	0.04	0.04	0.38	0.03	0.04	0.48	0.04	0.04	0.39
...a necessity	0.02	0.00	0.01	0.87	0.00	0.01	0.81	0.00	0.01	0.71
...a means to solve problems	0.18	–0.01	0.03	0.65	–0.02	0.03	0.51	–0.02	0.03	0.51
...a means of income	0.10	–0.02	0.02	0.51	–0.03	0.02	0.31	–0.03	0.02	0.29
...a compensation for low salaries	0.05	–0.01	0.02	0.65	–0.01	0.02	0.58	–0.01	0.02	0.51
...a part of life	0.01	0.02	0.01	0.07	0.02	0.01	0.02	0.02	0.01	0.02
...a temporary phenomenon	0.04	–0.02	0.01	0.08	–0.03	0.01	0.01	–0.03	0.01	0.01
...a tradition	0.01	0.04	0.01	0.01	0.04	0.01	0.00	0.04	0.01	0.00
...a national particularity	0.05	–0.01	0.02	0.64	–0.01	0.02	0.55	–0.01	0.02	0.61
Observations	285	600			556			556		

Note: Standard errors (*se*) and *p*-values (*p*-value) are based on asymptotic approximations

Table 6. **Effects among female students**

	Control mean	Mean difference			OLS			IPT		
		Effect	*se*	*p*-value	Effect	*se*	*p*-value	Effect	*se*	*p*-value
a. LVIV										
Would participate in campaign	0.12	–0.02	0.04	0.69	0.02	0.04	0.58	0.02	0.04	0.54
Corruption is										
...evil	0.13	–0.03	0.04	0.43	–0.03	0.04	0.53	–0.03	0.04	0.46
...a crime	0.46	0.01	0.06	0.92	–0.02	0.07	0.81	0.00	0.06	0.94
...a necessity	0.02	0.00	0.02	0.93	–0.01	0.02	0.74	–0.01	0.02	0.54
...a means to solve problems	0.12	0.02	0.04	0.61	0.03	0.05	0.57	0.02	0.05	0.63
...a means of income	0.10	0.02	0.04	0.68	0.00	0.04	0.94	0.00	0.04	0.96
...a compensation for low salaries	0.04	–0.03	0.02	0.22	–0.01	0.02	0.51	–0.02	0.02	0.38
...a part of life	0.01	0.01	0.01	0.60	0.01	0.02	0.40	0.02	0.01	0.29
...a temporary phenomenon	0.02	–0.01	0.01	0.53	–0.02	0.02	0.30	–0.02	0.01	0.30
...a tradition	0.02	0.06	0.03	0.02	0.08	0.03	0.01	0.07	0.03	0.01
...a national particularity	0.07	–0.03	0.03	0.33	–0.04	0.03	0.20	–0.03	0.03	0.19
Observations	122	253			241			241		
b. KHABAROVSK										
Would participate in campaign	0.13	0.12	0.05	0.13	0.12	0.05	0.04	0.11	0.05	0.03
Corruption is										
corruption is ...evil	0.15	–0.53	0.05	0.21	–0.53	0.05	0.30	–0.07	0.05	0.11
...a crime	0.42	0.01	0.07	0.58	0.01	0.07	0.91	0.01	0.07	0.91
...a necessity	0.05	–0.04	0.02	0.15	–0.04	0.02	0.05	–0.04	0.02	0.03
...a means to solve problems	0.08	0.04	0.04	0.66	0.04	0.04	0.30	0.04	0.04	0.27
...a means of income	0.07	0.08	0.04	0.24	0.08	0.04	0.07	0.08	0.04	0.03
...a compensation for low salaries	0.03	–0.01	0.02	0.54	–0.01	0.02	0.70	–0.01	0.03	0.76
...a part of life	0.05	–0.01	0.03	0.33	–0.01	0.03	0.73	–0.02	0.03	0.54
...a temporary phenomenon	0.00	0.01	0.01	0.32	0.01	0.01	0.34	0.01	0.01	0.31
...a tradition	0.00	0.01	0.01	0.32	0.01	0.01	0.40	0.01	0.01	0.30
...a national particularity	0.05	–0.02	0.03	0.57	–0.02	0.03	0.44	–0.01	0.03	0.75
Observations	98	190			173			173		

Note: Standard errors (*se*) and *p*-values (*p*-value) are based on asymptotic approximations

Table 7. **Effects among male students**

	Control mean	Mean difference			OLS			IPT		
		Effect	*se*	*p*-value	Effect	*se*	*p*-value	Effect	*se*	*p*-value
a. LVIV										
Would participate in campaign	0.07	0.01	0.03	0.73	0.02	0.03	0.42	0.02	0.03	0.44
Corruption is										
...evil	0.09	0.01	0.03	0.81	0.02	0.03	0.57	0.02	0.03	0.57
...a crime	0.46	0.06	0.05	0.28	0.06	0.05	0.27	0.07	0.05	0.21
...a necessity	0.01	0.00	0.01	0.90	0.00	0.01	0.96	0.00	0.01	0.95
...a means to solve problems	0.18	–0.04	0.04	0.33	–0.05	0.04	0.26	–0.05	0.04	0.22
...a means of income	0.06	–0.04	0.03	0.19	–0.03	0.03	0.34	–0.03	0.03	0.29
...a compensation for low salaries	0.06	0.00	0.03	0.86	0.00	0.03	0.90	0.00	0.03	0.94
...a part of life	0.03	0.03	0.01	0.07	0.03	0.01	0.03	0.03	0.01	0.02
...a temporary phenomenon	0.02	–0.03	0.02	0.09	–0.05	0.02	0.02	–0.05	0.02	0.02
...a tradition	0.03	0.02	0.01	0.12	0.02	0.01	0.19	0.02	0.01	0.20
...a national particularity	0.05	0.01	0.02	0.79	0.00	0.02	0.99	0.00	0.02	0.96
Observations	184	347			315			315		
b. KHABAROVSK										
Would participate in campaign	0.15	0.06	0.06	0.11	0.06	0.06	0.36	0.03	0.50	0.54
Corruption is										
...evil	0.08	–0.04	0.04	0.36	–0.04	0.04	0.30	–0.02	0.03	0.40
...a crime	0.56	0.11	0.08	0.65	0.11	0.08	0.24	0.05	0.07	0.47
...a necessity	0.00	0.02	0.02	0.16	0.02	0.02	0.19	0.02	0.02	0.15
...a means to solve problems	0.07	–0.01	0.04	0.78	–0.01	0.04	0.83	–0.01	0.03	0.75
...a means of income	0.05	–0.02	0.04	0.80	–0.02	0.04	0.47	–0.02	0.03	0.46
...a compensation for low salaries	0.00	0.03	0.01	0.32	0.03	0.01	0.30	0.05	0.03	0.03
...a part of life	0.01	0.05	0.03	0.22	0.05	0.03	0.14	0.04	0.03	0.11
...a temporary phenomenon	0.01	–0.01	0.01	0.32	–0.01	0.01	0.36	–0.01	0.01	0.32
...a tradition	0.00	0.03	0.02	0.16	0.03	0.02	0.20	0.03	0.02	0.12
...a national particularity	0.03	0.01	0.03	0.86	0.01	0.03	0.81	0.01	0.02	0.67
Observations	94	160			141			141		

Note: Standard errors (*se*) and *p*-values (*p*-value) are based on asymptotic approximations

Alexander Choroshavin[7], the governor of Sakhalin, and Viktor Chudov[8], the head of the regional parliament in Khabarovsk. This might have made an impact on the respondents in Khabarovsk: the results of combating corruption were visible. Students in Lviv, on the contrary, might be disappointed from the recent and ongoing reforms aiming to combat corruption in the country (see, for example, discussions in [Grødeland, 2010; The Economist, 2015]) and could be rather skeptical about a small anti-corruption campaign organized at the university by distributing flyers. Moreover, we simply asked our respondents about their willingness to participate in the campaign; we did not actually organize and run it. Students in Khabarovsk might demonstrate more willingness to participate just by saying it and not by following through (social desirability).

Inspired by the findings of gender-specific aspects of corruption (see, for example, [Chaudhuri, 2012])—specifically "good girl, bad boy" [Jetter, Walker, 2015]—we decided to look at this parameter as well (Table 6a and 6b and Table 7a and 7b). Indeed, some control means differ importantly across genders: "corruption is evil", "corruption is a crime" and corruption is "a necessity" in Khabarovsk as well as "would participate in a campaign" and "corruption is a means for solving problems" in Lviv. Moreover, in Khabarovsk the intervention has a considerably larger effect on willingness to participate in a campaign among females than among males, while no important gender differences in the effect on potential participation are found in Lviv. Furthermore, females in Khabarovsk receiving the intervention less often state that corruption is a "necessity" and more often consider it as a "source of income", while no such effects are found for males. In Lviv, the treatment induces males to more often consider corruption as a "part of life" and less often as a "temporary phenomenon", while females more frequently see it as a "tradition".

In addition to the quantitative part, our survey included one open question: we asked students about their personal experiences with bribery in their university studies. Our data represent not only the presence and the frequency of this issue, but also the reasons behind it. While the respondents in Khabarovsk were sparing in their explanations, just saying "for an exam" (*za eksamen*), "for a better mark" (*za luchshuiu ocenku*) or "due to pressure from a faculty member (*na sessii prepodavatel' vymogal vsiatku*), students in Lviv helped to create a detailed picture. The reasons for bribing might be clustered as follows: 1) missing classes—which are obligatory at Ukrainian and Russian universities ("there were many missed classes"—*bulo bagato enok*); 2)"unnecessary" subjects like sports ("for sport"—*za fizkul'turu*); 3) merely pursuing a formal degree without regard for how

[7] http://www.sakhalin.info/horoshavin/100693

[8] http://www.newsru.com/russia/10jun2015/chudoff.html

Table 8. **How often do you use the following practices?**

Areas	Actions	Not never responses*	
		Khabarovsk (n=350)	Lviv (n=600)
Taking exams	Using a cheat sheet during exams	92.2	94.5
	Copying somebody's work during examinations or tests	90.8	95.1
Writing papers	Downloading a course paper (or other written work) from the Internet	57.9	64.2
	Buying a course paper (or other written work) from special companies or classmates	32.2	40.4
	Writing a paper on one's own, but copying and pasting some chapters from the Internet	92.8	92.8
Communicating with the professor	Deceiving a professor while explaining problems associated with studies	42.5	68.2
	Asking a professor for an individual approach	26.1	37.5

* "Not "never responses" is the sum of "seldom", "sometimes", "often" and "systematically.

it is obtained ("do not want to study, but need a degree"—*ne khochu vchitis, a diplom treba'*); 4) willingness to get a state scholarship ("needed a few points to get a scholarship"—*treba bulo do stipendii paru baliv*); or 5) no time for studying ("was not ready for an exam"—*ne buv gotovii do eksamenu*). According to our data, students appear to be the main initiators of bribes. Lecturers might initiate a bribe, but this is rare. In both cities, bribes were initiated either by hinting ("direct and indirect hint made by a lecturer"— UKR: *priamii ta nepriamii natiak vikladacha*) or by force ("paid for subject by compulsion of a lecturer"— RU:*'proplachival predmet po prinuzhdeniiu prepodavatelia*, "a lecturer demanded a bribe"— UKR*: vimagav chabaria vikladach*).

While monetary corruption is more evident and easy to determinate, non-monetary corruption is more widespread. Table 8 illustrates the frequency of academic dishonesty among students in both cities. NB: this is not seen as a comparative analysis.

4. Conclusion

Our experiments show that the effectiveness of anti-corruption educational campaigns is unclear. Moreover, such campaigns might even "promote" corruption. The latter was more evident in Lviv: stu-

dents who were not previously engaged in monetary corruption in their dealings with the faculty learned about the pervasiveness of corrupt behavior through the anti-corruption folder and their acceptance of corruption increased significantly[9]. However, students who were previously engaged in monetary corruption in their dealings with the faculty were more ready to participate in anti-corruption campaigns. The intervention influenced students who stated that they purchase term papers (or other papers) from special agencies or written by other students: the number of students who believed that "corruption is a crime" and "corruption is evil" increased, while the number who believed that "corruption is a means to solve problems" decreased. Students without such experiences were more likely to believe that "corruption is a means to solve problems" than "corruption is evil" after the intervention (see more in Denisova-Schmidt, Huber, and Prytula, 2015). Anti-corruption campaigns were more effective in Khabarovsk. Interestingly, students in Russia show an ambivalent attitude towards corruption: in comparison to students in Lviv, they more often define corruption as "a crime", but at the same time as "a means to solve problems". The study outcomes show slight gender differences: women in Lviv are more willing than men to fight corruption, while women in Khabarovsk have a more negative attitude towards corruption.

The results of our study might be interesting not only for scholars, but also for policy makers in Russia and Ukraine and for such organizations as Transparency International. In our experiments, we used only printed materials. The younger generation we investigated is growing up in different circumstances, however, in which digital media play an important role. Would the results be different if we used only computer-based materials, such as short videos, PowerPoint presentations, or postings in social media accounts? This needs to be investigated further.

All of the involved actors should not only invest in anti-corruption education, but also tackle the systematic problems that have caused endemic corruption at universities, such as the number of obligatory classes students need to take ("unnecessary" classes), and respond to the current challenge that many other academic systems are faced with—the massification of higher education. In both countries, this has reached a crucial number: 80% of the 18–21 age cohorts now enroll in tertiary education. Not all of them are ready to study at such a high level and universities are increasingly dealing with "un-teachable" students (Denisova-Schmidt and Leontyeva, 2015) who are looking for formal degrees rather than education. It is difficult to blame young people for this; they do not have other alternatives because the system of vocational training is insufficient and almost destroyed.

[9] Similar results were found in Costa Rica [Gingerich, Oliveros, Corbacho, Ruiz-Vega, 2015].

Interestingly, the new Ukrainian law on higher education addresses the question of "unnecessary" classes and frees universities from obligating students to participate in such disciplines as sports or politics. Universities have not rushed to implement this point, however. In this case, these subjects would be offered on an elective basis, with the students deciding whether or not to study them. Both the lecturers and the students do not seem to be ready for this change.

This problem is not limited to Russia and Ukraine anymore; corruption can be "exported". In 2009, a large number of students from the University of St. Gallen in Switzerland took an exchange semester at a few Russian and Ukrainian universities. When they came back with their results, the department responsible for accepting their work was very surprised to learn that all of the students received a high number of credits (in some cases up to 60 or 80 credits for one semester), and all of them received only excellent marks. The class descriptions of the seminars they attended in Russia and Ukraine were almost identical to the class descriptions of the courses at the University of St. Gallen. This department became very suspicions and decided not to accept the results of this exchange, placing those Russian and Ukrainian universities on a black list. Students at the University of St. Gallen may still go to those universities, but their credits will be not accepted.

This might not be helpful for Russia, with its current ambitious plans for establishing world-class universities, or for Ukraine, currently recovering after its second Revolution, which was instigated by corruption, among other factors.

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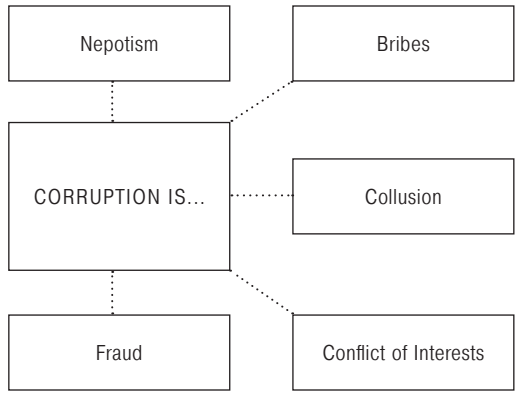
Picture 1. **Some forms of corruption: bribery, collusion, conflict of interest, fraud and nepotism.**



Source: Graphic by the authors based on *Transparency International: "Corruption: A Beginner's Guide,"* December 2012: http://www.transparency.org.uk/our-work/publications/10-publications/454-corruption-a-beginners-guide-what-is-corruption. (accessed on August 15, 2015)

Appendix: Folder 1 (treatment group)

Folder 1 was a color-printed booklet. It was made using materials developed by Transparency International[10] and included the following information:

- the position of Russia and Ukraine in the Corruption Perception Index. In its 2014 index of 175 countries, Transparency International ranked Russia in 136th place and Ukraine in 142nd place;[11]
- the definition of corruption as the abuse of entrusted power for collective and private gain in monetary and non-monetary forms;[12]
- some forms of corruption, such as bribery, collusion, conflict of interest, fraud and nepotism (see picture 1), plus some areas of corruption, like politics, the courts, business, the healthcare system, police, and education (Corruption in the UK: Overview and Policy Recommendations, 2011; Corruption: A Beginner's Guide, 2012);
- examples of corruption in higher education both without student involvement (manipulation of finances, university properties, accreditation) and with student involvement (copying, plagiarism, cheating the faculty, bribes for grades and other preferential treatment) and their negative consequences (Global Corruption Report: Education, 2013).

The folder ends with the call for participation in anti-corruption campaigns organized in Khabarovsk or Lviv, respectively.

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[10] See the campaign "Unmask the corrupt": http://www.transparency.org/unmask_the_corrupt/en/(accessed on August 15, 2015)

[11] http://www.transparency.org/cpi2014/results (accessed on August 15, 2015)

[12] http://www.transparency.org.ru/dokumenty/missiia (accessed on August 15, 2015)