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**COLLUSION AND CORRUPTION:  
AN EXPERIMENTAL STUDY  
OF RUSSIAN POLICE**

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Corruption, i.e. regular abuse of public office for private gains, draws substantial attention of researchers in many disciplines. Our paper adds to the experimental literature on corruption a novel experiment on corruption-at-the-top among the real Russian police officers of senior middle rank as experimental subjects (apparently the first study of that kind), which is contrasted to that of ordinary citizens (students in economics). Our experimental design explicitly takes account of the peculiarities of the Russian case during police reform, as well as social and institutional constraints facing anti-corruption policies. We find that taking bribes, and especially defending against possible checks of corruption, is quite common to Russian police officers, yet even more typical is their readiness to contribute towards the decrease of the likelihood of this anti-corruption check, even if this contribution leads to private losses. Another typical feature is increased volatility of the frequency and scale of bribery among the police officers (as contrasted to ordinary citizens) when measures aimed at fighting corruption are introduced. We discuss robustness of these findings, as well as their implications for anti-corruption policy.

JEL Codes: C93, D73, C72

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# 1 Motivation

Corruption as a social phenomenon is quite widespread in many spheres and countries, and draws attention of researchers in many disciplines. Taken generally, it is a state of the society whenever interactions between a citizen and a public servant are intermediated not just by actions involving side payments (abuse of private office for public gains), but also by belief, or expectations of one agent that his initiative will be met by the other party. Such beliefs have to coincide in equilibrium if the two sides can rely on making up a deal (and they most often have to, given the possibility of opportunistic whistleblowing). Hence, in order to be robust, corruption must be backed by an institutional arrangement to which all interested parties belong to, and which they feel in need to protect.

Our work draws on this premise, and exposes it from an empirical side. It adds to the quickly growing experimental literature on corruption (Abbink e.a., 2002; Abbink, 2006; Alatas e.a., 2009; Barr, 2009; Campos-Ortiz, 2011) a new empirical dimension specific to the country in question (Russia); and our sample. Subjects in our targeted (experimental) group are police officers of senior middle rank (from captain to colonel), with mean age of 36 years, who are adjuncts of one of the higher education institutions of the ministry of the interior of Russia. To our knowledge, this is the first experiment with this unique pool of subjects, who have sufficient tenure in the profession, and large exposure to different corruption channels. Indeed, in a recent representative survey of the 1550 Muscovites conducted by the authors, corruption topped the list of the most severe problems of the Russian police, being named the most serious problem by one quarter, and as one of the three most serious problems — by 57% of the respondents. At the same time, police is a paramilitary organization, which has substantial power over ordinary citizens (including ability to extract rents). Police is also very close to the external observers, which limits public control over its activities.

At the time of the experiment, Russian police was in the middle of the process of internal reform, partly motivated by the intention of the authorities to reduce corruption. Naturally, this fact causes caution among the police officers who might expect the experiment to reveal their personal proclivity to bribery, precluding direct measurement of corruption. Institutional restrictions when dealing with this subject pool impose some further limitations on the experimental design. In particular, we could not use real money as experimental reward, as it would be treated as an instance of corruption on itself (!), nor match police officers from our sample with ordinary citizens in a manner of lab-in-the-field experiment.

In view of these limitations, we focus on indirect measures of police proclivity to corruption, internal to police community. This emphasis stipulates further focuses of our research design, looking at the robustness of collective norms which maintain the existing standards of corrupt behaviour, as well as at the reaction of police officers to institutional changes. Formally, our model of corruption can be regarded as a repeated coordination game with two types of ‘implicit contracts’ (or equilibria): corrupt and corruption-free (legal); an investigation of the relative efficiency of alternative government policies aimed at prevention of corruption arises as a by-product of this approach. To draw conclusion on the relative power of these institutions applied to police, we compare the behaviour

of police officers to that of ordinary subjects (students of the Higher School of Economics) who played exactly the same game for experimental (symbolic) and real reward.

Our experimental setup is motivated by the following story. Casual evidence suggests that Russian police officers of middle rank can engage in corrupt behavior (smuggle the citizens) and give bribes to the monitors (police bosses) in exchange for their forgiveness of corruption and other wrongdoings towards the citizens. An experimental tool to model this is the threshold public good game for the middle-ranked officers, who act as experimental subjects. The game is played in groups of police officers (5 officers in each group) who repeatedly interact with each other via anonymous protocol under ‘partner’ treatment, i.e. the group composition is the same throughout the experiment. The experiment is designed to study network corruption of police officers at different levels of police hierarchy; it does not explicitly involve ‘citizens’. Think of a single Area Police Office where a group of POs of middle rank face tradeoff between low salary and taking bribes at a risk of being caught and prosecuted by their boss or an inspector. Every officer is entitled to be monitored with rather high probability, but the monitor (boss) is originally corrupt itself, in the sense that a bribe from the office, if high enough, dramatically decreases the probability of prosecution, even if the officers are corrupt. (Cases of outrageous bribes are disastrous exceptions, in which case all office suffers collectively, and we separately model this opportunity.) Payoffs in this game are arranged in such a way that for the police officers it is much more profitable to take bribes from the citizens and bribe the monitor rather than work honestly (somewhat more rigorously, honest work may be justified only by the unplausibly extreme degree of risk aversion).

After a while, consider the situation when the boss is suddenly replaced by another boss whose honesty is unclear for a while, and hence the office is uncertain as to whether this new boss will be willing to take bribes when he will catch the corrupt PO. This situation can take place within the frame of police reform, and the evolution of collective behaviour of the office is of outmost interest inasmuch as the new boss is honest indeed. Finally, we consider another extension, wherein reward of honest POs increase, and penalty for corruption when caught decrease substantially, making honest behaviour dominant for a risk-neutral players. This entire story corresponds to dynamic sequence of coordination games (institutional traps) modeled in experimental classroom, the main idea being to look at the evolution of social norms within the police society, and especially at the effects on these norms of some policy measures, such as higher remuneration and honest monitors. By contrast, ordinary citizens play only an implicit role, implying that the POs have full bargaining power to extract bribes from them. To check robustness of these results, we control for the outcomes using different subjects sample (students of HSE) who instead of the real POs may also be corrupt. We do not explore the (legal and political) origins of this system; instead, we model the police as a hierarchical institution which has the authority over the citizens, and has incentives to take and redistribute bribes. Another, related task of the experimental game is to explore the most efficient policy ways to perturb this corrupt norm if a corrupt boss is replaced by a honest one.

Adopting this setup, we have in mind, primarily, feasibility of this story for a prototypical police officer of middle senior rank, and intend to test the following

hypotheses:

1. The relative predisposition of the police officers (PO) to corruption activities will differ from that of the ordinary people (students).
2. POs will differ in their willingness to voluntarily contribute to the bribes to the monitors (bosses) from ordinary citizens.
3. PO will exhibit larger conservatism (slow reaction to changing incentives), and will be reluctant to abandonment of corrupt strategy at all when facing changes in institutions and incentives.
4. Subjects will be more responsive to negative changes (higher probability of being caught) than to positive ones (higher bonuses for honest behaviour).

These hypotheses appear to complement those tested in the literature - e.g., Gangadharan e.a. (2004) suggest that corruption can cause punishment on its own (on moral grounds), while Berninghaus e.a. (2010) observe that higher uncertainty (= higher frequency of monitoring) tends to reduce corruption. Specific hypotheses concerning subject samples are driven by the following considerations: 1) our ordinary subjects will be students in economics, who may be expected to be more 'rational' and more quick in their thinking. By contrast, POs are more likely to behave in a way that was customary to them beforehand and, to some extent at least, borrowed from their real-life experience.

## 2 Experimental design

Participants (POs) sit at the computer terminals, and are split into groups of 5 players in each. They know they are in the same group with someone else in the room, but don't know who personally are their partners. Group composition is fixed throughout the game, and all this is common knowledge.

The game consists of 24 rounds, subdivided into three stages. Each participant (PO) in every round receives income of  $w = 100$  and can take additional bribes  $b$  of arbitrary size. Bribes are illegal: all POs may be monitored for taking bribes with independent probability  $\pi$ ; if monitoring takes place, it will discover illegal activities with certainty, take all the bribes off the PO's revenue, and in addition will fine them with extra  $f = 50$  regardless of the size of the bribe (i.e. total deduction will be  $f + b$ ). The random probability of monitoring is defined as  $\pi = p + P = 0.1 + 0.7$  or  $0$ , depending on the POs collective action. Specifically, all POs, independently from each other, may contribute part of their income to the insurance fund, and if the amount of total contributions to that fund is no less than 500, then  $P = 0$  and  $\pi = 0.1$ ; otherwise, i.e. if they fail to collect that amount,  $P = 0.7$  and  $\pi = 0.8$ . In technical terms, this fund is the threshold public good, interpreted here as a bribe to the monitors (bosses of the POs). Contributions to this fund are voluntary, are fully deducted from the PO's income each period, regardless of whether the threshold has been met or not — this is known as no money-back guarantee rule, which appears to be the most efficient way to raise threshold public funds (Spencer e.a., 2009). Decisions are sequential: in one screen, POs decide about bribes, in the next, having observed their total income ( $w + b$ ), they choose contributions to the insurance fund,  $c$ . At the end of each round, POs observe own total income,

bribe, contribution, sum of contributions in their group, own deductions  $f + b$ , own net revenue per period and cumulative net own revenue across all rounds.

In that way, expected (risk-neutral) payoffs of the PO are

$$\begin{aligned} \pi_i &= \left[ w - c_i + b_i - 0.1(b_i + f) \cdot \Pr \left( \sum_j c_j \geq \bar{c} \right) - 0.8(b_i + f) \cdot \Pr \left( \sum_j c_j < \bar{c} \right) \right] \\ &\times \Pr \left( \sum_j b_j \leq \bar{b} \right) \end{aligned} \quad (1)$$

with the complementary payoff in case of  $\Pr \left( \sum_j b_j > \bar{b} \right)$  equals 0. There may be many equilibria in this game, but let us concentrate on the symmetric ones, in which all POs take pro rata bribes and make pro rata contributions. Then, if the amount of bribes is short of  $5000 \equiv \bar{b}$ , expected profit in case of meeting the threshold and bribes are pro rata ( $b_i = 1000$ ) is

$$\pi_i^I = 1000 - 100 + b_i - 0.1(b_i + 50) = 0.9b_i - 5 = 895 \quad (2)$$

If the threshold is not met, optimal contribution is zero, in which case

$$\pi_i^N = 100 + b_i - 0.8(b_i + 50) = 100 + 0.2b_i - 40 = 260 \quad (3)$$

and  $\pi_i^I = 895 > 260 = \pi_i^N > 100 = \pi_i^0 > 0 = \pi_i^g$ , where  $\pi_i^0$  is the payoff in case of no bribes, and  $\pi_i^g$  — payoff if the sum of bribes exceeds the threshold. Hence,

**Claim 1** *In the first stage of the game, for a risk-neutral PO with pro rata rule, optimal decision consists of taking bribe of 1000 and purchase insurance for 100.*

After initial rounds (eight), the first treatment is introduced: POs are told that the fund may or may not be in operation anymore, which event is determined exogenously. Even if the fund is not in operation, all contributions are not rebated to the contributors, and the probability of monitoring is not more than 0.8, while if it is, the probability falls down to 0.1 and the rules of the previous rounds are maintained. The probability of each realization is again independent across periods. The story is that the monitor may be not anymore corrupt, and do not ask for a bribe of 500, in which case the fund is really useless. All decisions procedures are the same as above.

In reality, in all these periods (eight again) the monitor was *not* corrupt, and all the contributions were handled back, in which case the optimal strategy is to stop contributing to the fund, while still taking bribes. Indeed, the fund now does not work, so  $\pi_i^I = \pi_i^N = 260$  no matter what one contribute, while not taking bribes yields  $\pi_i^0 = 100$ , so corrupt POs are still better off.

**Claim 2** *In the second stage of the game, a risk-neutral PO with pro rata rule still prefers taking bribes, while his contribution to the insurance fund is immaterial.*

Finally, at the last 8 rounds we introduce another manipulation: Over the conditions of stage 2, an incentive scheme to be honest is introduced as a fine of 300 instead of 50 in case of corruption, and the wage of someone who is not caught increases to 300. In this case, the utility of risk-neutral corrupt PO decreases to  $\pi_i^N = 100 + 0.2 \cdot 1000 - 300 = 0 = \pi_i^g$ , while the utility of non-corrupt PO is larger,  $\pi_i^0 = 300$ . The idea of this sequence of stages is to introduce incentives for being non-corrupt ('carrot'), when in stage 1, POs have strong incentives to be corrupt, in stage 2, incentives persist, but under significant dropout of returns, and in stage 3, honest behaviour is better than corrupt at a level which is better than the punished corruptioneers (260 vs. 300, albeit much less than the corrupt level of 895). This path of escape from the corruption trap seems to have been followed by Georgia and some other countries who took the initiative to fire all corrupt policemen and hire new ones for much larger salaries.

**Claim 3** *In the third stage of the game, a risk-neutral PO with pro rata rule should switch to honest behaviour.*

Dynamics of incentive structure is summarized in the following table:

stage	1	2	3
payoffs	$\pi^I > \pi^N > \pi^0 > \pi^g$	$\pi^I = \pi^N > \pi^0 > \pi^g$	$\pi^0 > \pi^I = \pi^N = \pi^g$

The game was programmed using Z-tree experimental software (Fischbacher, 2007), with two trial rounds preceding the first stage, conducted according to the same rules as that stage. Written instructions (in Russian) were handed to the participants, adding the respective piece of information prior to every stage. Experimental subjects were recruited from among the interns of the Academy of Management of the Russian Ministry of the Interior (MVD), in the rank of colonels and lieutenant colonels of different police departments. For comparison, contrasting games were organized using the same design and HSE students of different specializations, recruited through the usual procedures of the Laboratory of Experimental and Behavioural Economics.

One more feature of our design is subjects' remuneration. According to the Russian legislation, POs absolutely cannot be rewarded with real money, as this will be treated as blatant bribe. Furthermore, given the stylized facts of the POs, any reasonable experimental honorarium (even about \$100 per person) would hardly be taken seriously by an officer whose monthly budget is likely to be 20 and more times larger than that. In view of these considerations, we were forced to launch the experiment with the POs using moral rewards — percentage for the classwork at a regular academy course. Contrasting games with HSE students were played for real money.

Despite neutral language, police officers seem to have understood almost immediately what is the underlying story: almost immediately after the instructions were spelled out, some of them were throwing remarks like 'ah, they're chasing us for corruption' (revealing some difficulties with controlling the audience). This was not the case of students, many of whom failed to understand the game was on corruption. Instead, they were behaving as payoff-maximizing individuals, revealing the quality of their economics training.

### 3 Results

Results of the game with real police officers is shown on Figure 1, aggregating over the cases for the experimental (police, labeled ‘1’ in the middle) and two control subsamples. Vertical lines separate stages, horizontal lines show the risk-neutral pro rata benchmark for contributions and bribes. As can be seen, POs in the experiment are even more conservative (or ‘reserved’ during the experiment) as one might expect: their average corruption (shown in blue) is lower than the pro rata benchmark one might expect, and on average significantly below the pro rata share. Mean bribes taken by paid students are significantly lower than the pro rata amount of 1000 in stages 1 (Student  $t = -2.66, p < 0.007$ ) and 3 ( $t = -3.14, p < 0.001$ ), but not in stage 2, while mean bribes of the unpaid students are always undistinguishable from the pro rata benchmark.

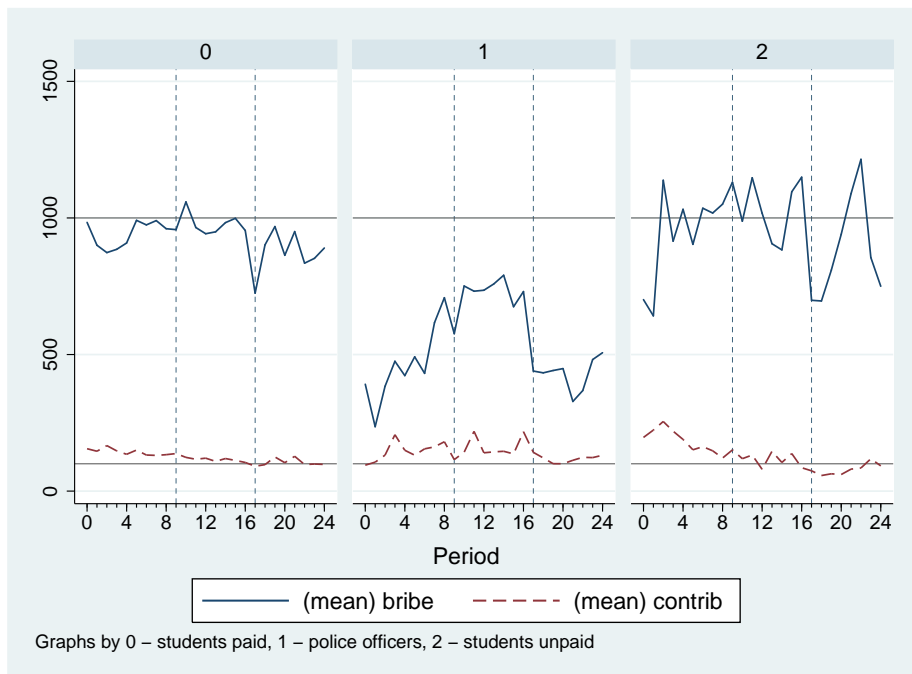


Figure 1: Mean distribution of contributions and bribes

Summary statistics of individual bribes and contributions to the fund by treatments and by periods are summarized in Table ?? for all observations. Their distributions are further presented on Figures 2 and 3.

Bribes are clearly similar to predictions, except that they are bimodal for POs in stages 1-2, revealing the fact that many POs do not take additional income. Contributions are generally similar to Nash prediction, this time without clear exceptions.

To conduct formal tests, we need to average out observations by groups to ensure independence across them. Overall, there is significant difference between all three treatments: ANOVA F-statistic based on between-groups averages based on periodic observations per group amounts to 119.20. Kruskal-Wallis tests for the pairwise differences are provided in Table 2 with probabilities in



Table 1: **Summary of contributions and bribes, total**

<b>variable/stage</b>	<b>mean</b>	<b>p50</b>	<b>sd</b>	<b>min</b>	<b>max</b>
<b>Students paid (<math>N = 520</math>)</b>					
bribe/1	935	1000	552	0	5000
bribe/2	976	1000	500	0	4000
bribe/3	873	1000	921	0	4999
contrib/1	143	100	107	0	504
contrib/2	118	100	92	0	501
contrib/3	105	100	123	0	600
<b>Police (<math>N = 360</math>)</b>					
bribe/1	575	275	790	0	5000
bribe/2	824	500	1097	0	5000
bribe/3	452	100	722	0	5000
contrib/1	176	100	329	0	4000
contrib/2	169	100	409	0	5100
contrib/3	104	10	201	0	1500
<b>Students unpaid (<math>N = 280</math>)</b>					
bribe/1	967	999	624	0	5000
bribe/2	1040	999	929	0	5000
bribe/3	891	105	1283	0	5000
contrib/1	184	150	170	0	1000
contrib/2	119	100	163	0	1000
contrib/3	76	0	134	0	600

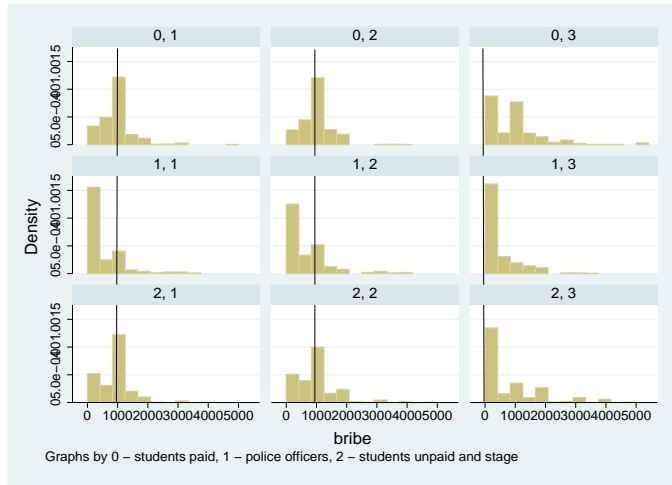


Figure 2: Distribution of bribes

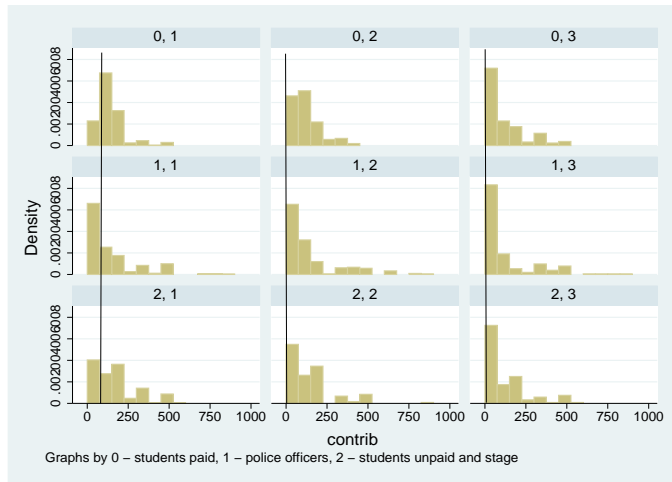


Figure 3: Distribution of contributions

parentheses. As seen from that table, there are significant differences between both control groups (students) and the police, but no significant differences between paid and unpaid student treatments. This is not the case of contributions though: they differ in the means between paid and unpaid students at stages 1 and 3, and between paid students and police at stage 2. The former fact is easily explained by the non-costly nature of contributions to the unpaid students, who could buy potential protection at no cost to them.

Difference between police and students is a different matter. Mean contributions among paid and unpaid students at stage 2 are 118 and 119, respectively, with median contributions being 120 and 113, i.e. these two groups are almost undistinguishable in both means and medians. By contrast, police contribute 169 in the mean and 140 in the median, which differ from students' statistics at any reasonable degree of confidence. Even if we exclude two outliers (1160

Table 2: **Differences in between-group mean bribes and contributions across treatments (Kruskall-Wallis test statistics, p-values in parentheses)**

treatments \ stage	1	2	3
<b>bribes</b>			
Students paid vs police	26.61 (0.000)	6.18 (0.013)	63.29 (0.000)
Students unpaid vs police	30.25 (0.000)	12.92 (0.000)	26.21 (0.000)
Students paid vs students unpaid	0.14 (0.702)	1.790 (0.180)	0.695 (0.404)
<b>contributions</b>			
Students paid vs police	4.290 (0.038)	8.366 (0.004)	0.108 (0.742)
Students unpaid vs police	0.040 (0.840)	0.958 (0.327)	0.004 (0.945)
Students paid vs students unpaid	10.965 (0.000)	0.151 (0.697)	9.529 (0.002)

and 1120), the group mean and median contributions would be 141 and 135, respectively, which is still highly significant, and striking.

Treatment effects are of main interest. Table 3 reports summary statistics of the distribution of group means across three stages (numbered by rows) over periods, presented by subject pools (paid and unpaid students, and police). Tendencies for bribes are similar to those described above, with lowest share taken by the police at stage 1, increasing by stage 2. Trends for contributions are more striking: they start at relatively high level (over 150) for both unpaid groups (police and students), and decline at a decreasing rate from session 1 to 3 for paid students, and yet more sharply for unpaid ones. For the policemen, the story is different: there is very little decline from stages 1 to 2 (from 176 to 169), and only at stage 3 their contribution catches up that of the civilians.

Statistical significance of these differences (Wilcoxon matched pairs test) is presented in Table 4. Behaviour of the first group is mostly conventional in the traditional economic sense: they take bribes at both stages 1 and 2 bribes when this is rational, while corruption decline at stage 3, when they should switch to honest strategy. This last decline is moderate, implying that their learning is only gradual, and marked by path-dependence. Perhaps more remarkable is that mean bribes increase from stages 1 to 2, reflecting the fact that potential punishment is likely to cause an increase in corruption. Since this behaviour is confirmed by the policement, we formulate the following result:

**Result 1** *Increase in the intensity of fight against corruption holding constant the social norm at first steps results in larger corruption.*

The intuition behind this is quite simple: when there is more pressure on bureaucrats in terms of compliance to the Law (lowering corruption), public servants face increasing risks of wrongdoing, and hence the price of this activity increases. Given that social norm change very slowly, and state bureaucrats (such as police) have large bargaining power to extract payments for their services at the desired rate, this should imply larger corruption, which is what we observe in the data. This effect is especially strong among the police — the only group where difference between bribes at stages 1 and 2 is significantly different. At the same time, their behaviour from stages 2 to 3 exhibits significant downward shift, suggesting that police may also be more responsive to

Table 3: **Summary statistics of mean group bribes and contributions across stages**

<b>variable</b>	<b>mean</b>	<b>p50</b>	<b>sd</b>	<b>min</b>	<b>max</b>
<b>Students paid (<math>N = 13</math>)</b>					
bribe1	935	940	180	541	1270
bribe2	976	957	84	832	1105
bribe3	873	896	109	671	1038
contrib1	143	142	32	94	191
contrib2	118	119	31	63	167
contrib3	105	111	34	13	145
<b>Students unpaid (<math>N = 7</math>)</b>					
bribe1	967	952	136	794	1218
bribe2	1040	916	457	603	2036
bribe3	891	880	322	593	1465
contrib1	184	193	42	104	225
contrib2	119	121	39	67	171
contrib3	71	72	53	0	151
<b>Police (<math>N = 9</math>)</b>					
bribe1	575	662	183	257	802
bribe2	824	737	295	416	1379
bribe3	452	431	243	78	909
contrib1	176	187	58	93	290
contrib2	169	133	93	79	391
contrib3	104	93	61	38	233

Table 4: **Differences in bribes and contributions across stages (Wilcoxon matched pairs test statistics, p-values in parentheses)**

treatments \ stage	1 vs 2	2 vs 3
bribes		
Students paid	-0.943 (0.345)	2.760 (0.006)
Students unpaid	0.000 (1.000)	1.352 (0.176)
Police	-1.718 (0.085)	2.192 (0.028)
contributions		
Students paid	2.271 (0.023)	1.572 (0.116)
Students unpaid	2.366 (0.018)	2.366 (0.018)
Police	1.244 (0.214)	1.955 (0.050)

positive incentives than ordinary citizens! Such conclusion is further warranted by the behaviour of the group of unpaid students, whose behaviour changes in the same directions, but not in a significant way.

Comparison of contributions across groups is not less interesting. As already discussed, students reveal steady and significant decline in contributions from period 1 to period 2, continued through period 3, when it is sharper for the unpaid group whose motivation to earn money is arguably the lowest. By contrast, police is much more rigid: their decline of contributions from period 1 to 2 is symbolic (from 176 to 169, i.e. only by 4 percents), which implies that under the first manipulation they tend to maintain the corrupt norm. Hence our crucial result is

**Result 2** *Police officers are significantly more attached to corrupt norm than ordinary citizens.*

At the same time, as argued before, policemen tend to catch up with the common tendency of decline in contribution when material incentives to take bribes go down, almost exactly matching that of the paid students sample. This result has an important policy implication that intrincically, policemen are no more corrupt than ordinary citizens: under proper incentives, they could be gradually ‘taught’ to abandon this practice.

**Result 3** *Police officers are rational in their behaviour, and respond to proper material incentives by declining their contribution to corrupt institution.*

A last interesting feature is comparison of individual contributions presented on figure 4. The average level of these contributions across groups are shown on the three figures: top row is for the students (left — paid, right — unpaid), and bottom row for the police officers. This figure shows a striking fact that mean contributions of some of the police officers tend to be much larger than that of ordinary citizens. A striking characteristic of this group is that some of the officers even happened to contribute the whole amount to the fund, while others withhold almost completely — and yet it does not seem to cause any discontent in the group, as both types of subjects keep continuing the same strategy for many subsequent periods.

This finding is in sharp contrast with both theoretical claims of free-riding and most of observational facts about subject behaviour in conventional samples.

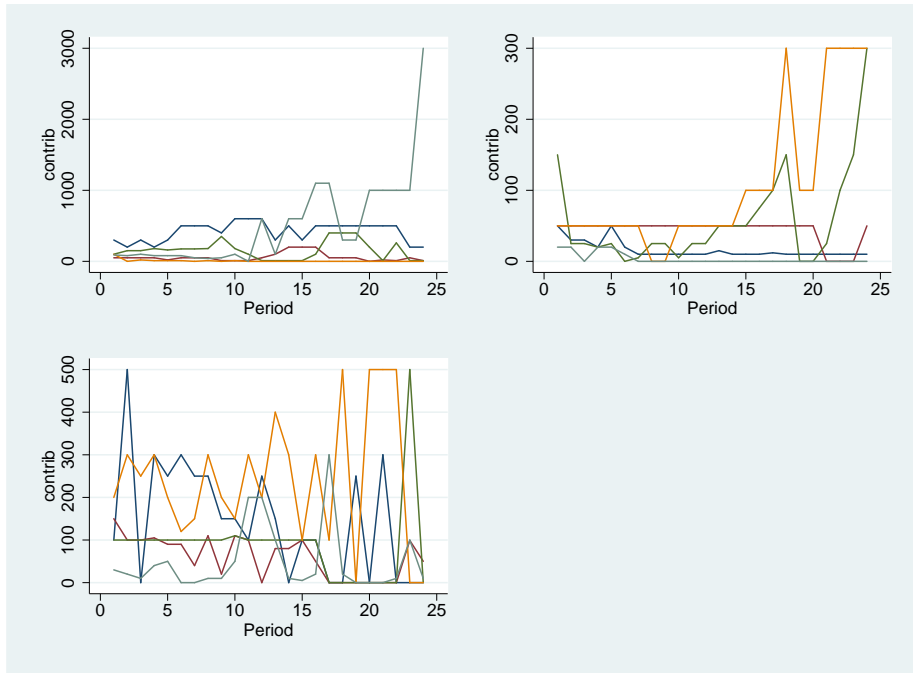


Figure 4: Mean contribution of POs to the insurance fund, by groups

If confirmed, it would mean that police officers have a peculiar sort of in-group solidarity which is latent to the external observer, but can materialize in the absence of any pre-commitment and prior communication. Contrasts with other samples, esp. those of middle-aged civil servants, is required to confirm this claim.

## 4 Econometric models

We also calibrate our conclusions using some econometric models. Table 4 reports random effect panel data estimate of being caught on contributions to the fund in the subsequent period. This effect is significant for all groups in stage 1, and is the largest for unpaid students, followed by police officers. The effect is still there for the students in stage 2, while it is not anymore significant for the police officers. In other words, students keep contributing to the fund more when they have been caught (even though de facto it does not help them), while policemen contribute regardless of that — another witness of sticking to the norm, however irrational it might be!

Combined effects of bribes taken (bribe) and the fact of being caught in the previous period (lfined) on the size of contribution to the control fund is provided in Table 6. Estimates are made using random effects models for continuous data. Regression results clearly show that contributions in student samples played for money are significant, suggesting that being penalized increases the size of contribution. By contrast, policemen are again insensitive to the fact of being caught: their contribution to the control fund remains largest on both

Effects of being caught at  $t - 1$  on contribution at  $t$   
Panel data random effects estimate, control for group effects

Sample	Coef.	StDev	Coef.	StDev	Coef.	StDev
Stage	1		2		3	
Stud.,\$	136.24***	28.17	112.18***	22.38	15.26	10.57
Stud.,	206.21***	38.64	145.28***	33.97	39.46	14.12
Police	183.94**	78.87	106.00	99.25	1.00	18.10

Table 5: Other controls: group indicators and overall intercept. \*\*\* — significant at 1%, \*\* — at 5%, \* — at 10% level.

lagged fact of being caught and size of bribe. These facts confirm our earlier conclusion that police officers, unlike ordinary citizens, value corruption not only as a source of rational rent extraction, but also as a within-group social norm which is important for them on its own even when material reasons for its existence are declining, as is the case under corruption fight.

Stage	Variable	Students paid		Police		Students unpaid	
		Coef.	(Std.Err.)	Coef.	(Std.Err.)	Coef.	(Std.Err.)
1	lfined	157.43	(38.475)***	90.79	(64.823)	121.46	(57.475)**
	bribe	0.05	(0.009)***	0.29	(0.015)***	0.09	(0.013)***
2	lfined	79.95	(30.946)***	158.38	(84.727)*	68.50	(48.775)
	bribe	0.07	(0.008)***	0.15	(0.018)***	0.09	(0.011)***
3	lfined	10.98	(7.238)	-28.27	(17.859)	17.64	(12.174)
	bribe	0.09	(0.005)***	0.13	(0.015)***	0.05	(0.005)***

Table 6: Regression of contributions to the control fund on bribe size and check in the previous period. Other controls: group indicators and overall intercept. \*\*\* — significant at 1%, \*\* — at 5%, \* — at 10% level.

## 5 Conclusion

The present paper presents experimental evidence on corruption intentions among the Russian police. Direct tests of this proclivity turns out to be impossible because of distorted incentives at the experiment, and unobservability of corruption intentions in other environments. Our paper advances a simple practical test of whether or not corruption is a norm: people should stick to it even if participation in corrupt activity becomes pointless from material viewpoint. Our results show that according to this criteria, police officers are much more robust in their intentions to stick to corrupt institution, thus revealing their interests in maintaining it.

The above conclusions are preliminary, and ought to be extended in several directions. First of all, so far the claim that corruption can be measured in the way we suggest remains largely intuitive, and warrants a theoretical background on which we are working now. Second, we need to include a treatment that would compare behaviour of POs to that of similarly aged civil servants,

as otherwise our analysis would be prone to obvious critique that students are young while policemen are in the middle of their lifecycle. with real payoffs and students with bonuses to contrast with the police behaviour. Finally, cross-country and cross-regional comparisons may make sense, as these would shed light onto the robustness of our finding in different institutional and cultural environments.



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Солидарность и коррупция: экспериментальное исследование на базе российской полиции [Электронный ресурс] : препринт WP9/2015/03 / А. В. Белянин, Л. Я. Косалс ; Нац. исслед. ун-т «Высшая школа экономики». – Электрон. текст. дан. (1 Мб). – М. : Изд. дом Высшей школы экономики, 2015. – (Серия WP9 «Исследования по экономике и финансам»). – 19 с. (на англ. яз.)

Коррупция, т.е. регулярное злоупотребление служебным положением для личной выгоды, привлекает значительное внимание исследователей, представляющих разные дисциплины. В этой работе мы представляем результаты первого экспериментального исследования коррупции среди полицейских среднего звена, поведение которых сравнивается с поведением обычных граждан (студентов НИУ ВШЭ) в аналогичных условиях. Дизайн нашего эксперимента основан на российских реалиях и ограничениях, с которыми сталкиваются представители органов власти, проводящие антикоррупционную политику. В качестве меры склонности к коррупции мы используем не размер взяток, которые могут брать участники (и которые у сотрудников полиции оказываются не выше, чем у студентов), а их склонность к содержанию коррупционных институтов даже в тех случаях, когда они теряют экономический смысл в изменившихся институциональных условиях. Существенно более высокое стремление полицейских поддержать этот институт свидетельствует об интериоризации коррупционных ценностей. Мы обсуждаем надежность этих выводов, а также их последствия для политики в области противодействия коррупции.

Ключевые слова: коррупция, коллективные решения, полиция, эксперимент

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