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Fair Salaries and the Moral Costs of Corruption

by

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Abstract

In a bribery experiment, we test the hypothesis that distributive fairness considerations make relatively well-paid public officials less corruptible. Corrupt decisions impose damages to workers whose wage is varied in two treatments. However, there is no apparent difference in behaviour.

Keywords

Corruption, reciprocity, fairness, public sector salaries

JEL Classification Codes

C91, D62, D72, D73, K42

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1. Introduction

In the ongoing debate on corruption a lot of attention is paid to the role of public sector salaries. According to a common intuition, higher salaries for officials induce a lower level of corruption (see e.g. TANZI, 1998). The relationship has been statistically supported in an empirical study by VAN RIJCKEGHEM and WEDER (1997). Using cross-country data, the authors find corruption, as perceived by businessmen, to be significantly higher in countries in which the public sector salaries are low relative to manufacturing wages.

The question why public officials get less corruptible when they are better paid is vividly discussed; most likely there is more than one answer. Changes in the (relative) salaries induce changes of many possibly influential factors. Thus, a variety of explanations for a link between public officials' salaries and their corruptibility can be suggested. Roughly, they can be categorised according to three major lines of argumentation.

- The higher the relative salaries in the public sector, the more an official loses if he is caught at corrupt activities. Officials getting caught are usually expelled from the public service and forced to work in the private sector.¹
- Low salaries in the public service attract only incompetent or even dishonest applicants, which results in an inefficient and non-transparent corrupt administration.²
- When government positions are paid worse than comparable other jobs, the *moral costs* of corruption are reduced.³ Poorly paid public officials might find it less reprehensible to accept bribes than officials receiving a comparatively fair salary.

The present paper addresses the last aspect, the impact of fairness implications of income differentials on the corruptibility of officials. Changes in the income distribution between public officials and the private sector have direct and indirect influences on the moral costs of corruption. A direct effect can be attributed to the additional income an official receives by bribe-taking. This may either reduce income asymmetries or induce additional unfairness, depending on whether public service salaries are above or below comparable private sector wages. An indirect effect can be expected from the negative externalities of corruption, which are typically spread over the population. For example, consider a tax collector or a procurement officer who accepts bribes in order to make favourable decisions. In these examples, all taxpayers suffer from corruption. All other things equal, an increase of the public official's salary would increase the moral costs of corruption as those who suffer from his malfeasant behaviour get poorer compared to himself.

¹ VAN RIJCKEGHEM and WEDER (1997) refer to this as *shirking* behaviour.

² This aspect is addressed e.g. by KLITGAARD (1989), BESLEY and McLAREN (1993), and UL-HAQUE and SAHAY (1996).

³ In the classical paper by ROSE-ACKERMAN (1975), agents maximise a utility function with a cost term arising from moral scruples.

VAN RIJCKEGHEM and WEDER (1997) test shirking against a fair salary hypothesis in their data set. The authors examine whether corruption is eradicated when public sector salaries are at or above a level which the civil servants consider as “fair”. They find that the salary level necessary to crowd out corruption would be unrealistically high, and interpret this as weak evidence against the fair salary hypothesis. However, they concede that, in absence of observations of high public sector salaries, the data do not allow to fully test the fair salary hypothesis. Thus, the authors had to conclude on the basis of hypothetical extrapolations.

In this paper, we test the fair salary hypothesis in a laboratory experiment. This method allows to observe influence of salary differences in a controlled environment. Further, we can create an environment that allows to separate the effect of fairness considerations from the other influences mentioned above, such as shirking. We design an experiment using a variant of the bribery game by ABBINK, IRLBUSCH, and RENNER (1999), who model a stylised corruption scenario with a firm and a public official. In their experiment, corrupt behaviour imposes negative externalities to all other pairs of firms and officials in a session. The new feature of the present experiment is that damages are imposed to a passive type of subjects, the *workers*. We conduct two treatments which differ tremendously in the wage paid to the workers. By a comparison of the two treatments we can identify the effect of fair income considerations on the moral costs of corruption.

2. The Experimental Design

In the stage game, which is repeated 30 times with fixed player pairs, a firm first specifies an amount t to be transferred to a public official. The amount can be an integer from 0 to 9 *talers* (the fictitious currency). If he transfers a positive amount, the public official can accept or reject the bribe. If he rejects, no money is transferred, but the firm must pay a relatively small fee of 2 *talers*, representing initiation costs. If the public official accepts, then the amount offered is deducted from the firm’s account, and multiplied by the factor three before being credited to the official’s account⁴.

When a bribe has been accepted, a lottery is played out. With a probability of 0.3%, the *sudden death* event happens: Both players are disqualified from the experiment. Their cumulative earnings are cleared from their accounts, and they are not allowed to play further rounds. This penalty, which is probably the most severe one doable in the experimental framework, represents drastic fines and job loss arising from discovery of corrupt activities.

At the last stage, the public official must choose one of two alternatives. Alternative X represents the “honest” option. It is, apart from eventual bribes, slightly preferable to her (as manipulating a decision requires effort to justify her choice before her superiors). Alternative Y, however, is much more favourable to the briber. When Y is chosen, each worker suffers a deduction. In total, the deductions exceed the mutual gains for the briber and public official.

⁴ The factor is introduced to avoid the possibility of negative total earnings by the firm transferring too much.

The exact payoffs can be seen in figure 1. As corruption is done secretly, no feedback is given about decisions by other pairs.

Figure 1 depicts the game tree of the stage game. Player “F” is the firm, player “P” the public official, and “C” denotes a chance move. The hangman symbol illustrates the event of sudden death. The lines “-4...-4” mean that the 12 workers are damaged by 4 talers each.

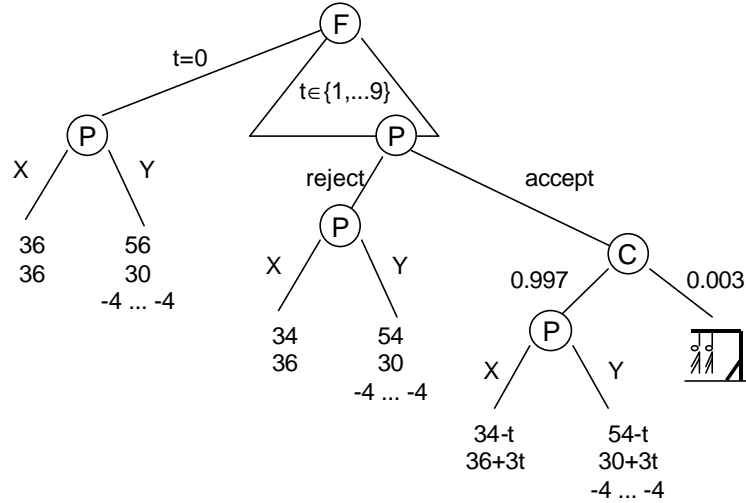


Figure 1

On any equilibrium path, the public official will always choose X at her terminal decision nodes. Given that, the firm’s payoff by transferring a positive amount is always strictly worse than by transferring nothing. Thus, in an equilibrium, the firm does not offer bribes.

The workers are endowed with a lump sum payment equivalent to a round payoff of 30 (LW treatment) or 90 talers (HW condition). By the extreme difference we ensured that the relative income position of public officials and workers is unambiguous: The workers earn in any case less (LW) or more (HW) than a public official who is not disqualified can ever gain in the experiment. We induced variations to the relative payoffs of workers and public officials by changing only the workers’ payoffs. By this, both treatments are identical with respect to absolute payoffs of firms and officials, such that only motivations that are connected to relative payoffs between workers and players can induce differences in behaviour. Concerns about relative payoffs of public officials and firms neither can induce treatment differences. Further, only the public officials were informed about the lump sum payoffs paid to the workers. Since the objective of this experiment refers to public officials’ behaviour, we excluded that treatment differences can be due to the *firms’* fairness concerns.

The workers’ should perform a serious and useful task, such that damages done to the workers could not be justified with the poor value of their work. We let them evaluate transcripts of

“video experiments”⁵. Their evaluations are to be used for future research. Care was taken that the workers’ presence was perceptible for the firms and public officials.

The experiment was conducted in the *Laboratorium für experimentelle Wirtschaftsforschung* at the University of Bonn. A session started with a plenary introduction for all 24 subjects.⁶ All subjects were told that the one group of participants (the workers) would evaluate transcripts of video experiments, and the other group (the players) would be involved in an interactive decision making experiment. They were also told that the workers’ payoff would be a lump sum rate minus a fraction due to the players’ decisions. The group of participants was then randomly divided into the two subgroups. To save time, detailed instructions were given to the two groups separately. The players’ instructions were formulated in a completely neutral language without any connection to corruption. The experiment was computerised with software developed using *RatImage* (ABBINK and SADRIEH 1995). The session ended when the players had completed the 30 rounds of play, which took approximately one hour. The players earned on average Euro 21.11, the workers Euro 12.60 in the LW, and Euro 40.01 in the HW treatment. All subjects “survived” the sudden death lotteries.

The majority of subjects were law and economics students. Each subject could participate only once and in only one treatment. We conducted two sessions with each treatment, such that we have 12 independent pairs of players for each condition.

3. Results and Conclusions

We measure the level of corruption with two variables. The *average offered transfer*, shown in table 1, measures the firms’ propensity to pay bribes, the *frequency of Y choices*, shown in table 2, identifies the extent to which decisions have been manipulated by bribery. An effect of relative payoffs between officials and workers should be expressed in lower frequencies of Y choices in the LW treatment, which would lead to lower bribe offers during later play. However, the tables show that behaviour is strikingly similar in both treatments. Fisher’s two-sample permutation test does not reject the null hypothesis of equal average bribe offers nor that of equal Y choice frequencies in both treatments. We do not find evidence that high relative salaries of public officials lead to less corruption through fairness considerations. In both treatments, subjects’ behaviour is characterised by the strong impact of reciprocity, which can be identified through the correlation between average transfer offer and average Y choice frequency across the pairs. The Spearman rank correlation coefficients are $r_s = 0.82$ for LW, and $r_s = 0.96$ for HW, both significantly positive at $\alpha = 0.01$.⁷ Taking the two results, the effectiveness of reciprocity and the lacking treatment difference, together, we can conclude

⁵ In video experiments, decisions are made by groups of players who discuss their decisions. The discussions are videotaped and transcribed. The transcripts used here were taken from JACOBSEN and SADRIEH (1996).

⁶ The written instructions and the raw data are available from the author upon request.

⁷ With respect to the impact of reciprocity, the present results replicate the findings of previous reciprocity experiments, e.g. FEHR, KIRCHSTEIGER, and RIEDL (1993), or BERG, DICKHAUT, and McCABE (1995).

Table 1. Average Transfer Offer by Individual Firms

LW		HW	
Pair	Avg. transfer	Pair	Avg. transfer
2	0.0	7	0.2
9	0.0	5	0.8
12	0.1	9	0.9
3	0.6	1	1.0
5	1.8	4	1.2
1	2.0	6	2.0
7	3.2	10	3.3
8	3.6	8	3.8
6	3.8	12	3.8
11	4.1	2	4.4
4	5.8	3	4.6
10	5.8	11	5.5
Avg.	2.57	Avg.	2.64
st. dev.	2.14	st. dev.	1.80

Table 2. Frequency of Y Choices by Individual Public Officials

LW		HW	
Pair	rel. freq. of Y	Pair	rel. freq. of Y
3	0.00	7	0.00
9	0.00	5	0.03
12	0.07	1	0.07
2	0.10	4	0.13
8	0.13	9	0.20
11	0.27	6	0.30
5	0.30	10	0.37
1	0.33	2	0.57
7	0.33	12	0.57
6	0.63	8	0.63
4	0.97	3	0.67
10	0.97	11	0.77
Avg.	0.34	Avg.	0.36
st. dev.	0.34	st. dev.	0.27

that the reciprocity considerations in the one-to-one relationship between briber and official seem to rule out concerns about distributive fairness towards other members of the society. This implies that increasing the salaries in the public sector would not let us expect that corruption levels would decrease because of fairness considerations. In this sense, our experimental results support VAN RIJCKEGHEM and WEDER's (1997) interpretation of their empirical data, and provide an experimental corroboration of their conclusions.

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