Sensitivity to Corruption – An Experimental Investigation in China

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Abstract
Corruption by now is widely accepted as a major economic problem around the world as it causes huge negative welfare effects. A basic task in fighting corruption is to increase people's sensitivity to this issue. The paper analyzes whether directing people's attention to the bribery context can sensitize them for corruption and decrease actual corruption behavior. We study this issue in an experiment mimicking the strong trust-reciprocity situation in Chinese *guanxi* networks. We use a context-free scenario and we make the bribery aspect salient by heavily loading the instructions with negative ethical preconceptions. Our results show that although bribers (firms) seem not affected by the corruption-loaded context, bribees (public officials) react in that they accept fewer bribes and take less welfare-decreasing actions. We discuss implications for anti-corruption policy.

Keywords: Corruption, bribery, ethical behavior, experiment, context, China, guanxi
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1. Introduction

Corruption by now is widely accepted to be a major economic problem around the world. In particular, corruption has huge negative welfare effects. Corruption and anti-corruption is hence an important political issue for every country. As defined by Transparency International, corruption is "the misuse of entrusted power for private gain." (Transparency international 2011). The entrusted power mentioned here is usually understood as the authority an officer is endowed with by the state. In an environment where power is extremely asymmetrically distributed among different social classes and officers have enormous such kind of authority, corruption is easier to grow. Husted (1999) found corruption to be significantly correlated to power distance. A higher level of asymmetric power distribution most probably will lead to a higher level of corruption.

Developing countries with high growth rate may offer corruption a greenhouse to live in. Field evidence shows very few developing countries to have low levels of corruption (Khan 2006). It has been argued that such countries can bear the costs of corruption, or a certain degree of corruption can even speed up economic growth for these countries (Leff 1964; Bardhan 1997; He 2000). Yet, as Rose-Ackerman (2006) pointed out it is not only economic

growth that matters. If corruption is indulged, it is very likely that social fairness and social harmony would reach a critical unbalance and lead to a series of social problems. These factors play a not ignorable role for the further economic growth. Several studies show the other side of the relationship between corruption and growth. Mauro (1995, 1997) and Mo (2001) find that corruption can also lower economic growth. Therefore, anti-corruption policy is of special importance for countries developing at a high rate.

Most anti-corruption research so far suggests institutional policies as the main method against corruption. Ades and Di Tella (1999) propose that policies should make markets more competitive in order to control corruption more efficiently. Yang (2006) suggests using private firms as anti-corruption monitors in some public areas like taxation. In fact, many such institutions work efficiently against corruption, as e.g. the Independent Commission Against Corruption (ICAC) of Hong Kong.

Besides the attempts to adjust current anti-corruption policies or to construct new organizations, one more basic and general task in fighting corruption is to increase people's sensitivity to corruption. Rousso and Steves (2003) show perceptions of corruption to be positively correlated with the intensity of anti-corruption programs. Hauk and Saez-Marti (2002) suggest that educating the young generation is a key element in reducing corruption successfully since it changes young people's values and thus lowers their perception of corruption.

The focus of our research is to study whether people's sensitivity to corruption and actual corruption behavior can be affected by directing people's attention to the bribery context. We study this issue by using the bribery game developed by Abbink, Irlenbusch and Renner (2002) in a neutral and a bribery scenario as applied by Abbink and Hennig-Schmidt (2006) (hereafter AHS).[1] As the wording of experimental instructions can draw subjects' attention to social or ethical aspects of the environment, the bribery aspect is made salient by heavily loading the instructions with negative ethical preconceptions. A firm and a public official are interacting repeatedly. The firm can give bribes to the official and the official can grant permission for running a plant that, however, causes negative consequences to the public. In the neutral setup, the game is presented in a completely neutral way, i.e. player A can transfer money to player B and player B can choose either action X or Y. If the loaded instruction can transfer the message of unethical corruption behavior correctly, a lower level of corruption may result.

We deliberately choose to run the experiment in China for several reasons. First, the status quo of corruption is strait. The Corruption Perception Index (CPI) focusing on corruption in the public sector, i.e. the abuse of public office for private gain, includes 178 countries. China's CPI is 3.50 out of a no-corruption score of 10 and ranks stable over the last years. Second, the power distance and human inequality among different social groups is great (see Hofstede 1984, 2001). The Chinese officers, who are often treated as a privileged class, have more power than citizens. That is to say, as in China power is extremely asymmetrically distributed among different social classes and officers have enormous such kind of authority, corruption is likely to grow easier. Third, the economic growth rate is high. China has had

[1] For further experiments on corruption see e.g. Alatas et al. (2009), Azfar and Nelson Jr, (2007), Barr and Serra (2009, 2010), Barr et al. (2009), Cameron et al. (2009), Lambsdorff and Frank (2010), For a survey on earlier laboratory experiments on corruption see Abbink (2006).

persistent double-digit growth rates nearly for all the last two decades. Finally, the Chinese culture is characterized by *guanxi* networks (see Taube 2013 for the following). These are traditional institutions to stabilize social relations, which have been established in former times to secure the market exchange of goods. *Guanxi* networks are an integral part of the Chinese social system. Relationships and social connections are based on mutual interest and benefits (Yang 1994) meaning that favors received must be returned. Transactions in *guanxi* networks are like an infinitely repeated game with a known set of people (Davis 1995).[2]

The strong trust-reciprocity design of our experiment fits the situation in *guanxi* networks quite well. If the firm does a favor to the official by giving a bribe, the official might feel obliged to return the favor by giving permission to run the plant without accounting for the negative affect on the public. The perception of transactions as corrupt may depend on the context or perspective (Schramm and Taube, 2006): from the perspective of a legal system, which is independent of personal relationship, it is corruption. But from the perspective of a relationship, it appears as normal and even necessary within the network. These two perspectives are made salient by the bribery and the neutral scenario, respectively. Finally, we mimic the long-lasting relationships of *guanxi* networks by repeating the experiment for 30 consecutive rounds.

We expect the loaded instructions to better transfer the corruption message resulting in a lower level of corruption than in the neutral scenario. Our results show that although firms seem not affected by the corruption context, public officers react in that they both accept fewer bribes and grant less permissions.

The reminder of this paper is organized as follows. In section 2, we introduce the experimental design and procedure. We present the results of our experiment in section 3, discuss our findings and conclude in section 4.

2. Experimental design and procedure

2.1 Experimental design

We use the design of AHS (2006) as a workhorse. The design catches three basic features of a bribery scenario: (i) trust and reciprocity between briber and bribee, (ii) negative externalities on society, (iii) a certain but low chance that a bribery action will be detected.

The wording in the bribery treatment describes the following bribery scenario. A firm wants to run a plant, which causes negative consequences to the public. In order to run the plant, the firm needs to get a permission from a public official. Before the public official makes her choice on whether to grant the permission, the firm can offer her a private payment. The public official can accept or reject the private payment.

18 players, 9 firms and 9 officers, attend one session. Each firm is matched to a public official. As bribery in related real-life situations is usually a long-term relationship, the matching is fixed for the whole experiment. The experiment consists of 30 rounds. In each round, the firm first chooses whether to offer his matched public official a private payment. If he does, he has to pay 2 points as sunk transaction costs. Further, he has to choose a transfer amount from the interval [1, 2, … , 9]. As the marginal utility of the transfer is assumed to be larger for the

[2] For further papers on *guanxi* see e.g. Xin and Pearce (1996), Luo, and Chen (1997), Farh et al (1998), Chen and Chen (2004).

public official than for the firm, the private transfer is tripled in case the public official accepts. Moreover, a number from the interval [0, 1, … , 999] is randomly drawn if the public official accepts the private transfer, e.g. when a bribery action is completed. In case the random number is 0, 1 or 2 (equaling a probability of 0.3%), the corrupt action of this pair's firm and officer is detected. As punishment, these two players are disqualified for the remainder of the experiment and their accounts are cleared. They were paid the lump-sum show-up fee of RMB 10 Yuan only. If the bribery action is not detected, i.e. the random number is bigger than 2 (equaling a probability of 99.7%), the public official decides whether to grant the permission in this round. If she does, she receives 30 points and the matched firm receives 56 points as round payoffs. The remaining society consisting of all other 16 players are affected because granting the project has negative consequences for the public: Every permission reduces the payoff of each member of the remaining society by 3 points. If the public official does not permit the project, she and her matched firm both receive 36 points. The remaining society is not affected.

After all decisions of a round have been made, the subjects are informed about payoffs resulting from their own pair's decisions. They are reminded that their payoffs could be influenced by the decisions of all other pairs in the session. The outcome of all the other pairs' bribing decisions are given to them only after all rounds were finished. An overview of the experimental procedure of one round is provided in figure 1.

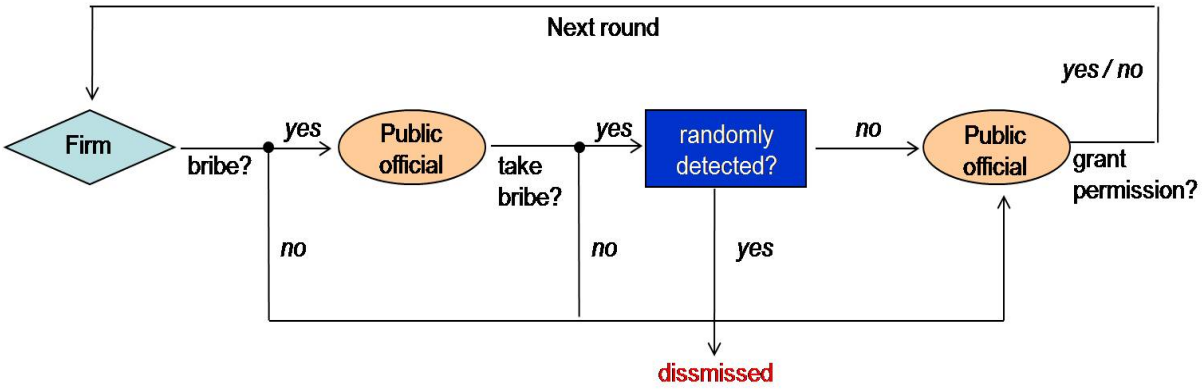

Figure 1: Sequence of actions in one round

In the control treatment, the instruction is written in neutral framing. The main differences in wording used in the bribery and neutral treatments are listed in table 1. In addition to replacing expressions, the paragraph describing the real-life situation modeled in the experiment is deleted.[3]

Table 1: Wording used in the bribery and the neutral treatment[a)]

Bribery	Neutral
"firm"	"player A"
"public official"	"player B"
"private payment"	"transfer"
"grant the permission"	"choose X"
"do not grant the permission"	"choose Y"

[a)] Source: AHS (2006)

[3] See payoff tables and instructions of the loaded and the neutral treatment in English in Appendix A.1 to A.3. [4] We thank Klaus Abbink and Heike Hennig-Schmidt for providing their experimental instruction.

The original instructions are written in German[4]. The translation of instructions and into Chinese was done by native speakers applying the back-translation method (Brislin 1970; Eco and McEwen 2000). The instruction of each treatment is provided in the appendix.

2.2 Payoff functions and game-theoretic solution

Payoff functions for firm (π_F) and public official (π_{PO}) vary in different cases:

- In case no bribe is offered:
  $\pi_F = \pi_{PO} =$ 36, permission is not granted
  $\pi_F = 56$, $\pi_{PO} = 30$, permission is granted
- In case a bribe offer is denied:
  $\pi_F = 36 - 2 = 34$, $\pi_{PO} = 36$, *permission* is not granted
  $\pi_F = 56 - 2 = 54$, $\pi_{PO} = 30$, *permission* is granted
- In case a bribe offer is accepted being not detected:
  $\pi_F = 36 - 2 -$ *bribe* offer, $\pi_{PO} = 36 + 3 *$ bribe offer, permission is not granted
  $\pi_F = 56 - 2 -$ *bribe* offer, $\pi_{PO} = 30 + 3 *$ bribe offer, permission is granted

The standard game-theoretical solution for the bribery game is that the firm will never choose to bribe the public official and the public official will never grant the permission[5]. This translates directly into a corruption-free environment in our experiment: no bribe and no negative externality.

2.3 Experimental procedure

The experiment was conducted at the experimental laboratory of a northern Chinese University. Student participants were almost all undergraduate students majoring in various disciplines who were recruited by campus advertisements promising a monetary reward for participation in a decision-making task. Every subject could participate in one session of the bribery experiment only. Overall 144 subjects participated in our experiment.

All sessions were computerized, using the software *zTree* (Fischbacher 2007). The screens were the same in both treatments, except that in the neutral condition the bribery wording was replaced by the corresponding neutral wording. For each treatment, we conducted two sessions. 18 subjects participated in each session. Since each session comprises nine statistically independent observations, we obtain 18 independent observations in each treatment.

After arrival, subjects were allocated to their computer terminals by random draw. They were seated in cubicles, visually separated from one another by curtains. The terminal numbers also determined the role of a subject as firm or public official. After the subjects had been seated, each session began with an introductory talk. The instructions were read aloud by the experimenter and were explained in detail. Also payoff tables were handed out. After the introduction, subjects were encouraged to ask questions that were answered in private. Then the experiment started. Every experimental session lasted for about 1.5 hours including instructions.

[4] We thank Klaus Abbink and Heike Hennig-Schmidt for providing their experimental instruction.
[5] For the proof see Abbink (2000).

Immediately after the session, subjects were paid anonymously in cash. The exchange rate is RMB 0.045 Yuan per point. In addition, a show-up fee of RMB 10.00 Yuan was paid. The monetary reward was calculated to equal the hourly wage in a typical students' job. The total earnings in points ranged from 726 to 1489 with an average of 928.50. Calculated in the real currency, subjects gained an average payoff of RMB 53.43 Yuan (approximately 5.34€).

3. Results

3.1 Firms' choices

We measure firms' level of corruption by two variables.

- The relative bribe frequency $f_B = \frac{\sum(rounds\ of\ offering\ bribe)}{\#\ of\ rounds\ played}$ measures how often firms intend to make bribe offers.
- The average bribe transfer $T_B = \frac{\sum(bribe\ transfers)}{\#of\ rounds\ played}$ mirrors how much firms are ready to pay to get the permission.

Table 2. Bribe frequencies (f_B) and average bribe offers (T_B)

neutral			bribery		
Pair	f_B	T_B	Pair	f_B	T_B
13	0.00	0.00	6	0.00	0.00
14	0.07	0.07	13	0.00	0.00
16	0.07	0.10	3	0.03	0.03
6	0.10	0.60	8	0.07	0.30
7	0.13	0.20	12	0.10	0.27
1	0.20	0.70	2	0.13	0.90
5	0.27	1.80	1	0.27	0.80
15	0.47	1.90	17	0.30	1.77
17	0.50	2.33	18	0.37	1.47
10	0.60	2.07	10	0.40	0.60
2	0.67	4.03	5	0.43	2.40
3	0.67	4.80	16	0.43	3.50
11	0.73	3.60	7	0.47	2.63
9	0.77	4.30	9	0.50	4.37
4	0.80	4.63	11	0.53	3.27
18	0.80	4.73	15	0.57	3.97
12	0.83	4.53	14	0.80	4.07
8	0.87	4.70	4	0.90	4.57
Mean	0.47	2.51	Mean	0.35	1.94
SD	0.31	1.91	SD	0.26	1.67

Figure 2: Distribution of bribe offers

Table 2 presents f_B and T_B of each firm in both treatments ordered according to f_B. The game theoretic prediction of no bribe cannot be observed in the data. Out of all 36 firms, 17 (94.44%) firms in the neutral and 16 firms (88.88%) in the bribery treatment bribed at least once. On average, f_B is 12% lower in the bribery treatment (35%) than in the neutral treatment (47%). But the Mann-Whitney U test does not allow rejecting the hypothesis of equal bribe frequencies in the two treatments (p=0.194, two-sided).

Figure 2 shows the distribution of bribe offers. In the neutral treatment, we find a two-peak distribution with a higher peak at 0 (53%), i.e. no bribe, and a smaller peak at 6 (21%), i.e. the

equal-split bribe offer[6]. All of the other eight bribe offers is chosen in less than 10% of the rounds. In the bribery treatment, although bribe offers of 0 and 6 are still the two most chosen bribes, the distribution is rather changed into a right-skewed distribution with the single peak at 0 (65%). The relative frequency of choosing 6 as bribe offers is only 8% which is not significant different from other bribe offers like 5 or 9 (both are chosen by 5%). The equal-split bribe offer hence loses its prominence in the bribery treatment. The average bribe offer drops from 2.51 in the neutral treatment to 1.94 in the bribery treatment. The Mann-Whitney U test, however, does not provide for individual T_B to be statistically different between these two treatments (p=0.297, two-sided).

Figure 2: Distribution of bribe offers in the neutral and the bribery treatment

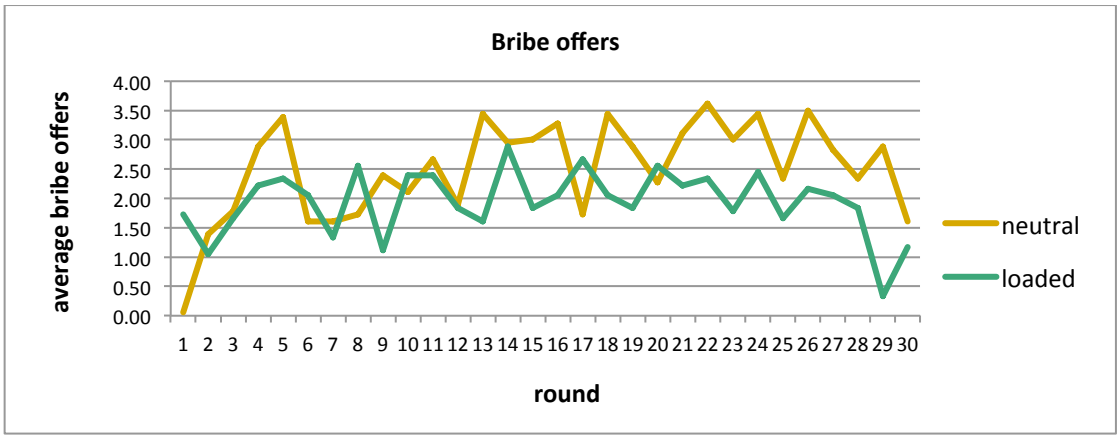

Figure 3: Evolution of average bribe offers for all 30 rounds in the neutral and the bribery treatment

Figure 3 shows average bribe offers for all 30 rounds. In both treatments, we cannot find a positive tendency of bribe offers over time. For each firm, we calculate a linear regression coefficient using bribe offers as dependent variable and the number of rounds as independent variable[7]. 10 positive and seven negative coefficients emerge in the neutral treatment, while six positive and 10 negative coefficients are found in the bribery treatment. The binomial tests do not reject the null hypothesis that the probability of positive and negative coefficients is equal, neither in the neutral (p=0.629) nor in the bribery treatment (p=0.454). The Mann-Whitney U test cannot detect different trends of bribe offers over time between the two treatments (p=0.214, two-sided).

[6] When public officials accept a bribe offer of 6 points and then grant the permission to the firm, then both parties receive an equal payoff of 48 points.
[7] The linear regression coefficient is 0 for firms who do not bribe at least once.

Result 1: *The firms' levels of corruption – neither the bribe frequency f_B nor the bribe offer T_B – are not significantly different between the neutral and the bribery treatments.*

3.2 Public officials' choices

We measure public officials' level of corruption by two variables.

- Public officials' acceptance level of bribe offers A measures their corruptibility, defined as the ratio of accepted bribes over bribe offers: $A = \frac{\sum(accepted\ bribes)}{\sum(bribe\ offers)}$,.
- The relative frequency of permissions $f_P = \frac{\sum(rounds\ of\ permission)}{\#\ of\ rounds\ played}$ measures the extent to which decisions have been manipulated by bribery (AHS, 2006).

Table 3 shows each public official's A and f_P in both the neutral and the bribery treatment ordered according to f_P. On average, 78% bribe offers are accepted in the neutral treatment. The acceptance level declines by 19 percent points to 59% in the bribery treatment. The Mann-Whitney U test rejects the null hypothesis that the acceptance levels of bribe offers are equal in the two treatments (p=0.047, two-sided).

Table 3. Acceptance level of bribes (A) offers and permission frequencies (f_P)

neutral			bribery		
Pair	A	f_P	Pair	A	f_P
13	–[a)]	0.00	6	–[a)]	0.00
16	1.00	0.00	13	–[a)]	0.00
1	0.00	0.03	8	0.00	0.00
14	0.50	0.03	18	0.00	0.00
6	0.67	0.10	17	0.43	0.03
7	0.00	0.13	12	0.75	0.03
10	0.94	0.23	1	0.92	0.07
5	0.67	0.30	3	0.00	0.10
9	0.90	0.50	16	0.55	0.10
17	0.93	0.50	2	1.00	0.10
4	0.94	0.53	5	0.42	0.20
15	0.88	0.63	11	0.43	0.20
12	0.95	0.63	10	0.67	0.20
11	0.97	0.63	15	0.71	0.33
2	1.00	0.67	7	0.78	0.40
3	0.99	0.77	4	0.88	0.40
8	1.00	0.77	14	0.98	0.77
18	1.00	0.83	9	0.95	0.90
Mean	0.78	0.41	Mean	0.59	0.21
SD	0.33	0.30	SD	0.35	0.26

[a)] – : the matched firm does not offer a bribe.

Figure 4 shows the aggregated acceptance frequencies on bribe offers. Except for bribe offers of 1, the acceptance frequencies are lower in the bribery treatment than in the neutral treatment.

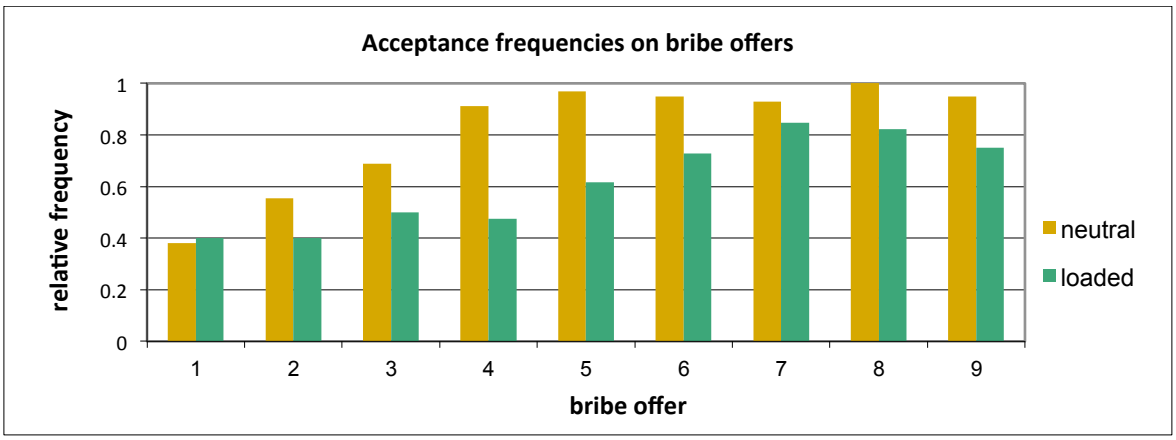

Figure 4: Acceptance frequencies on bribe offers in the neutral and the bribery treatment

Figure 5 shows the relative permission frequencies f_P for all 30 rounds. In only two rounds (round 21 and 30), f_P is higher in the bribery treatment than in the neutral treatment. In 25 rounds, f_P is lower in the bribery treatment. In the remaining rounds, f_P is equal in the two treatments. On average, f_P is 20% percent points lower in the bribery treatment (21%) than in the neutral treatment (41%). The Mann-Whitney U test Weakly rejects the null hypothesis that the permission frequencies are equal in the two treatments (p=0.064, two-sided).

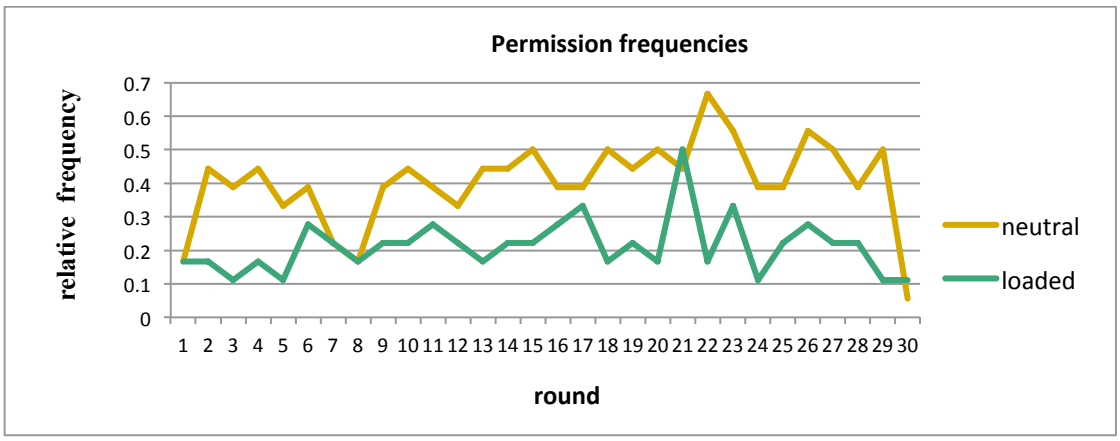

Figure 5: Evolution of permission frequencies in the neutral and the bribery treatment

Result 2: *Both public officials' acceptance levels of bribe offers and permission frequencies are significantly lower in the bribery treatment than in the neutral treatment.*

4. Conclusions

In this paper, we examine sensitivity to corruption of Chinese experimental subjects in a corruption experiment. The treatments vary in that experimental instructions present a bribery scenario either in a context-free manner or are heavily loaded with negative ethical preconceptions. We find that Chinese subjects' behavior is not stable across treatments. While firms appear not to be affected, public officials accept fewer bribe offers and grant less permissions. Participants in the role of officials show greater sensitivity to corruption than firms in the bribery context.

Our findings lend support to our conjecture that in country like China where corruption is an every-day hot topic sensitivity to corruption can be increased when the corruption context is made salient. Whereas subjects may perceive the neutral setup as a reciprocal obligation like in a *guanxi* environment the bribery treatment may rather be sensed as a corruption scenario.

The propensity to engage in accepting bribes may be reduced if government repeatedly exposes their citizens to anti-corruption information.

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Appendix A: Experimental instructions (original in Chinese)

Appendix A.1: Instruction Bribery Treatment

Welcome to our experiment

In this experiment you are in an interactive decision situation between a firm and a public official. The firm wishes to run a plant which causes negative consequences to the public. In each round, the public official must decide whether or not to grant the permission. In advance, the firm can offer a private payment to the public official, who can accept or reject the offer.

All in all **18 persons** participate in the experiment. There are two types of participants: **Firms** and **public officials**. At the beginning of the experiment, the type of each participant is randomly drawn. **The type of a participant remains unchanged throughout the experiment.**

Also ranomly, pairs of participants are formed; one firm and one public official are matched to one another. **The pairs remain unchanged throughout the experiment**.

The experiment consists of **30 rounds**. At the end of the experiment you will receive a **payoff** that depends on your success.

One Pair's Decision Situation in a Round

Stage 1: Offer of a private payment

First, the firm decides whether or not he wants to offer a private payment to the public official. If he does, then the credit of the firm is reduced by offer costs of **2 talers [in China: points]**, and the play is continued with stage 2. If the firm does not want to offer a private payment, then his credit remains unchanged, and the play is continued with stage 4.

Stage 2: The amount to be offered

The firm has to decide on the amount to be offered to the public official as a private payment. The firm can choose between **1, 2, 3, 4, 5, 6, 7, 8 or 9 talers [points]**. The play is continued with stage 3.

Stage 3: Acceptance or Rejection of the private payment

The public official decides on whether he **accepts** or **rejects** the proposed private payment.

- If the public official accepts the private payment, then the credit of the firm is reduced by the amount he proposed. The public official's credit is increased by the **tripled amount** of the accepted private payment. If a private payment is made and accepted, then this can be discovered with a certain probability. This is decided by randomly drawing a number out of the range from 0 to 999.
  - ⇨ If the number is **0, 1, or 2**, then the private payment is discovered. The firm and the public official are **punished with disqualification**. That means: **The experiment ends for these two participants, and they do not receive any payment for whole experiment, i.e. also the talers [points] that have been earned in the past are cleared from their accounts.** (In the end of the experiment, both participants receive the show up fee, see below). The two disqualified participants have to wait until the experiment has ended. For the other participants, the experiment is continued normally.
  - ⇨ If the number is **3, 4, ..., 998, or 999**, then the private payment is not discovered, and the experiment is continued with stage 4.
- If the public official rejects the transfer, then the credits remain unchanged (Attention: Even if the public official rejets the private payment, the offer costs from stage 1 have to be paid). The play is continued with stage 4.

Stage 4: Decision on Granting the Permission

The public official chooses whether or not to **grant the permission to the firm.**

- If the public official grants the permission, then the firm's credit is increased by **56 talers [points],** whereas the public official's credit is increased by **30 talers [points]**. The credit of each of the 16 other participants is **decreased** by **3 talers [points]** by this decision.
- If the public official does not grant the permission, then his credit and the credit of the firm matched with him are increased by **36 talers [points]** each. The credits of the 16 other participants are **not changed** by this decision.

Attention: By each of the eight other pairs, in which a permission is granted for the firm, the payoff for **the firm** as well as for **the public official** is decreased by **3 talers [points]**, i.e. at maximum eight times 3 and at minimum no talers [points] are deducted from the firm's and the public official's credits each. The deductions by decisions of other pairs are not announced before the experiment has ended.

After stage 4, the round has ended. The round payoffs are the sum of all credit changes during the four stages.

Possible deductions by decisions of other pairs are not included in the round payoffs. They are considered only at the end of the experiment.

The payoffs

You receive your payoff at the end of the experiment, where the exchange rate is RMB 4.50 for 100 points. In addition, you receive a show up fee of RMB 10.00.

Appendix A.2: Instruction Neutral Treatment (original in Chinese)

Welcome to our experiment

All in all **18 persons** participate in the experiment. There are two types of participants: **Player A** and **Player B**. At the beginning of the experiment, the type of each participant is randomly drawn. **The type of a participant remains unchanged throughout the experiment.**

Also ranomly, pairs of participants are formed; one player A and one player B are matched to one another. **The pairs remain unchanged throughout the experiment**.

The experiment consists of **30 rounds**. At the end of the experiment you will receive a **payoff** that depends on your success.

One Pair's Decision Situation in a Round

Stage 1: Offer of a transfer

First, the plyer A decides whether or not he wants to offer a transfer to the player B. If he does, then the credit of the player A is reduced by offer costs of **2 talers [in China: points]**, and the play is continued with stage 2. If the player A does not want to offer a transfer, then his credit remains unchanged, and the play is continued with stage 4.

Stage 2: The amount to be offered

The player A has to decide on the amount to be transferred to the player B. The player A can choose between **1, 2, 3, 4, 5, 6, 7, 8 or 9 talers [points]**. The play is continued with stage 3.

Stage 3: Acceptance or Rejection of the transfer

The player B decides on whether he **accepts** or **rejects** the proposed transfer.

- If the player B accepts the transfer, then the credit of the player A is reduced by the amount he proposed. The player B's credit is increased by the tripled amount of the accepted transfer. Then a random number out of the range from 0 to 999 will be drawn.
  - ⇨ If the number is **0, 1, or 2**, then the player B and the player A with whom the player B is matched are disqualified. That means: **The experiment ends for these two participants, and they do not receive any payment for whole experiment, i.e. also the talers [points] that have been earned in the past are cleared from their accounts.** (In the end of the experiment, both participants receive the show up fee, see below). The two disqualified participants have to wait until the experiment has ended. For the other participants, the experiment is continued normally.
  - ⇨ If the number is **3, 4, ..., 998, or 999**, the experiment is continued with stage 4.
- If the player B rejects the transfer, then the credits remain unchanged (Attention: Even if the player B rejects the transfer, the offer costs from stage 1 have to be paid). The play is continued with stage 4.

Stage 4: Decision on X or Y

The public official chooses X or Y**.**

- If the player B chooses X, then the player A's credit is increased by **56 talers [points],** whereas the player B's credit is increased by **30 talers [points]**. The credit of each of the 16 other participants is **decreased** by **3 talers [points]** by this decision.
- If the player B chooses Y, then his credit and the credit of the player A matched with him are increased by **36 talers [points]** each. The credits of the 16 other participants are **not changed** by this decision.

Attention: By each of the eight other pairs, in which player B chooses X, the payoff for **the player A** as well as for **the player B** is decreased by **3 talers [points]**, i.e. at maximum eight times 3 and at minimum no talers [points] are deducted from the player A's and the player B's credits each. The deductions by decisions of other pairs are not announced before the experiment has ended.

After stage 4, the round has ended. The round payoffs are the sum of all credit changes during the four stages.

Possible deductions by decisions of other pairs are not included in the round payoffs. They are considered only at the end of the experiment.

The payoffs
You receive your payoff at the end of the experiment, where the exchange rate RMB 4.50 for 100 points. In addition, you receive a show up fee of RMB 10.00.

Appendix A.3: The Payoff Tables

– Differences in wording are marked with round (neutral treatment) and squared (bribery treatment) brackets –

Round payoff if (player B) [the public official] **accepts (**a transfer) [a private payment] and the randomly drawn number is bigger than 2.

(transferred amount) [private payment]	1		2		3		4		5		6		7		8		9	
(Player B's decision) [permission granted?]	(X) [yes]	(Y) [no]	(X) [yes]	(Y) [no]	(X) [yes]	(Y) [no]	(X) [yes]	(Y) [no]	(X) [yes]	(Y) [no]	(X) [yes]	(Y) [no]	(X) [yes]	(Y) [no]	(X) [yes]	(Y) [no]	(X) [yes]	(Y) [no]
Payoff (... player A) [... firm]	53	33	52	32	51	31	50	30	49	29	48	28	47	27	46	26	45	25
(... Player B) [...public official]	33	39	36	42	39	45	42	48	45	51	48	54	51	57	54	60	57	63
... each of the other 16 participants	–3	0	–3	0	–3	0	–3	0	–3	0	–3	0	–3	0	–3	0	–3	0

Round payoff if (player B) [the public official] **rejects (**a transfer) [a private payment]

(transferred amount) [private payment]	1,...,9	
(Player B's got) [public officer got]	0	
(Player B's decision) [permission granted?]	(X) [yes]	(Y) [no]
Payoff (... player A) [... firm]	54	34
(... Player B) [...public official]	30	36
... each of the other 16 participants	–3	0

Round payoff if (player A) [the firm] **does not** (transfer an amount) [offer a private payment]

(transferred amount) [private payment]	0	
(Player B's got) [public officer got]	0	
(Player B's decision) [permission granted?]	(X) [yes]	(Y) [no]
Payoff (... player A) [... firm]	56	36
(... Player B) [...public official]	30	36
... each of the other 16 participants	–3	0

Each of the 8 other pairs in which (X is chosen) [a permission is given] decreases the payoff for (player A and player B) [the firm and the public official] by another 3 talers each.