Letting the Briber Go Free:  
An Experiment on Mitigating Harassment Bribes

KLAUS ABBINK, UTTEEYO DASGUPTA, LATA GANGADHARAN, TARUN JAIN

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Abstract

This paper examines the effectiveness of using asymmetric liability to combat harassment bribes. Basu (2011) advocates legal immunity for bribe-givers, while retaining culpability for bribe-takers. Results from our experiment indicate that while this policy has the potential to significantly reduce corrupt practices, weak economic incentives for the bribe-giver, or retaliation by bribe-takers can mitigate the positive disciplining effect of such an implementation. As a result, asymmetric liability on its own may face challenges in the field.

Keywords: Harassment bribes, Experiment, Asymmetric Penalty, Retaliation.
JEL Classification: C91, K42.

1Abbink, Gangadharan: Department of Economics, Monash University, Clayton VIC 3800, Australia; klaus.abbink@monash.edu, lata.gangadharan@monash.edu. Dasgupta: Department of Economics, Franklin & Marshall College, Lancaster, PA 17604-3220, USA; utteeyo.dasgupta@fandm.edu. Jain: Finance, Economics and Public Policy Area, Indian School of Business, Hyderabad AP 500032, India; tarun.jain@isb.edu. Financial support from Monash University and the Indian School of Business is gratefully acknowledged. We appreciate the cooperation of Professor V. S. Rao at BITS Pilani, Professor N. K. Sharma at the University of Hyderabad and Professor Veer Singh at NALSAR University of Law in facilitating the experiments at their respective universities. Urvashi Jain, K. Jayashree, Megha Juneja and Preethi Rao provided excellent research assistance.
1. Introduction

Corruption can stand in the way of efficient governance; distort perceptions of procedural fairness, and encumber economic growth (Myrdal 1968; Shleifer and Vishny 1993; Knack and Keefer 1995; Mauro 1995; Mo 2001). Bribes are often paid in awarding public contracts or receiving services faster (speed money). Often officials demand bribes for delivering services that citizens are entitled to get, like admission to hospital or delivery of a passport. This type of bribery is what Basu (2011) calls harassment bribes. Though the official cannot legally deny the service, he can delay or aggravate delivery to the point where it becomes useless to the citizen. Harassment bribes are, although in themselves non-distortionary, arguably welfare reducing since they need to be paid to receive entitled goods and services (Basu 2011). This paper examines the impact of different scenarios on those who initiate and respond to harassment bribes.

Different countries have taken different legal approaches to curbing bribery. While in the United States, United Kingdom, France, Germany and India the bribe-giver and recipient are both equally culpable and face penalties, prescribed legal punishment for the bribe-giver is comparatively mild in China, Japan and Russia (see Engel, Goerg and Yu 2012 for a discussion). Harassment bribery is reported to be particularly rampant in the public service. A recent report using data collected through a prominent website (www.ipaidabribe.com) estimates that close to half a billion rupees was paid as bribes in 21 months in India to receive land documents, marriage certificates, electricity connections, admissions in preferred colleges and registering home purchases or police complaints. Transparency International’s Corruption Perception Index (2004) reports that bribes are paid in 15 percent of cases when dealing with the health and tax sectors and 100 percent of cases when dealing with the courts and the police. The current legal environment in many countries, which features symmetric liability for both the bribe-giver and receiver, seems to further exacerbate this situation. The typical bribe-giver, who is an ordinary citizen, is in a dilemma. When faced with a bribe demand from a public official, refusal to pay implies considerable inconvenience or loss due to a certain delay in receiving the service, while succumbing to bribe-giving makes her legally culpable should the transaction be discovered.

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3 “Rs. 11.42 crore and counting… Is what Bangalore paid in bribes”, *The Times of India*, June 6th, 2012.
To remedy this situation, Basu (2011) suggests an asymmetric punishment system that prosecutes and punishes only the public official (bribe-taker) and imposes no legal liability for the ordinary citizen seeking the service (bribe-giver). He hypothesizes that offering the citizen legal impunity for whistle blowing even if she has paid a bribe can encourage more frequent reporting. This in turn should discourage officials from demanding bribes in anticipation of the whistle blowing. Consequently, Basu predicts reduced incidence of harassment bribery in equilibrium.\(^4\)

Critics of Basu’s proposal argue that legal immunity for bribe-givers would make bribe-giving an attractive option and perhaps morally acceptable as well. As a result, legalizing bribe-giving might in effect increase its incidence instead of reducing it (Drèze 2011). Drèze also points out that returning bribes can be complicated and difficult, if not completely impractical as a policy. Another prominent complaint against the proposal is that a change in culpability on its own might not increase bribe-reporting due to feeble prosecution rates and notoriously slow delivery of justice, particularly so in developing countries such as India.\(^5\) Bribe-givers will therefore anticipate future harassment by the official still in office, and refrain from whistle blowing.

This paper uses experiments to examine the effectiveness of the proposed asymmetric culpability rule in combating harassment bribes. The experimental approach offers an alternative to traditional survey or field data analysis. We present a typical harassment bribe scenario in a stylised game played by participants in the laboratory. By varying the institutional environment across treatments we can identify conditions under which policy measures may or may not work. The laboratory allows us to observe corrupt decisions empirically, an endeavour that is notoriously difficult in the field since everybody involved in such decisions has good reasons to remain silent.

The effect of leniency programs has previously been studied in the context of antitrust policies (Apesteguia et al. 2004; Bigoni et al. 2009). Only recently has

\(^4\) Policymakers in other countries have attempted such asymmetric liability rules in contexts other than corruption. For example, the United States outlawed distribution and sale of alcohol during the Prohibition era (1920-33), while consumption remained legal. As a result, customers could testify against their suppliers, which would have been difficult had consumption also been illegal (Miron 1999). Sweden, followed by Denmark and Norway, introduced anti-prostitution laws with a similar spirit of asymmetric impunity.

\(^5\) For example, less than 40% of all cases in India where a bribe-taking attempt is *investigated* lead to the official being penalised (National Crime Records Bureau 2010).
this idea captured the attention of the anti-corruption literature. Dufwenberg and Spagnolo (2011) introduce a theoretical model to evaluate Basu’s proposition of asymmetric punishments and propose further modifications to the underlying idea.

The growing experimental literature on corruption, starting with Abbink et al. (2002), deals mainly with collusive bribery, i.e., when citizens and officials exchange favours at the cost of the public. Subsequent work uses this basic structure to answer corruption related questions and test policy instruments such as staff rotation (Abbink 2004), top-down vs. bottom-up monitoring (Serra 2011), four-eye principle (Schickora 2011), and the use of bribes to motivate inspections (Lowen and Samuel 2012). There has also been research on the impact of framing, subject background and culture on behavior in the context of corruption (Abbink and Hennig-Schmidt 2006; Alatas et al. 2009; Barr and Serra 2009; Cameron et al. 2009; Banuri, Eckel, and Wilson 2011). For surveys relating to the experimental literature on corruption see Abbink (2006) or more recently Banuri and Eckel (2012) and Serra and Wantchekon (2012).

The paper most akin to ours is the study by Engel, Görg, and Yu (2011), who also compare symmetric versus asymmetric punishment regimes, albeit in the context of collusive bribery, i.e., bribes that are paid to obtain a favourable service that the briber is not entitled to. In their bribery game a citizen can offer a bribe to an official, who can reciprocate by manipulating his decision in the citizen’s favour. In this framework the results show that asymmetric punishment increases the frequency of corrupt exchanges. However, collusive and harassment bribery fundamentally differ from one another. Under symmetric punishment, citizen and official both have an interest that their bribe-payment stays undetected. Letting the briber go free breaks this common interest. In collusive bribery the common interest stems from the exchange of favours, which is still there even if liability is not symmetric anymore. Hence the results from Engel, Görg, and Yu (2011) cannot necessarily be transferred to harassment bribes.

Our paper is novel in several ways. First, to the best of our knowledge, this is the first experiment addressing harassment bribery (sometimes called extortionary corruption), i.e., when bribes are demanded to provide services to a citizen that she is legally entitled to free of costs. Second, in contrast to most of the literature, our experimental design helps us examine citizens’ behaviour when faced with a distribution of bribe amounts providing a better understanding of decision-making in the context of corruption. Finally, the treatments examined in
the paper allow us to evaluate the impact of monetary and non-monetary factors that can influence the propensity for whistle blowing.

Our findings provide qualified support for Basu’s asymmetric liability scheme. When bribe-giving is legalised, reporting increases and demands for bribes decrease. However, Drèze’s concerns are relevant as reporting decreases when retaliation is possible and when bribes are not returned to the citizens. This suggests that although asymmetric impunity schemes are a promising avenue to consider, such schemes ought to be complemented with other measures to have the desired effect.

2. The Harassment Game

Consider a simple sequential-decision game between an official and a citizen for the delivery of a service that the latter is entitled to. The official is obliged to grant the service, but de facto has the discretion to deny it, or delay it to the point where the service is useless to the citizen. This gives him the opportunity to demand a bribe for speedy delivery. The citizen can refuse to pay, but this is very costly, often prohibitively so. For example, refusing to pay a bribe for admission to a hospital may cause delays that could have fatal consequences.

Figure 1 describes the harassment game. In stage 1, the official can opt out of bribe taking (\(B = 0\)) and provide the service to the citizen, or choose to ask for bribe (\(B\)) from the citizen. In stage 2, if the official asks for a bribe, then the citizen can choose any of the three actions: (1) refuse to pay the bribe (2) pay quietly (3) pay and report the bribe. Actions 2 and 3 lead to a probabilistic discovery of bribery and the final payoffs depend on whether the act was discovered or not in these two cases. The act of bribery is more likely to be discovered if the citizen has reported the demand.
We conduct two treatments with this set-up that are distinguished by the payoffs the players receive for their actions. First, in a symmetric liability treatment, both citizen and official are fined if caught. This represents the legal status quo. In a contrasting asymmetric liability treatment, only the official gets prosecuted and pays a fine while the briber enjoys impunity and gets her bribe-money back. Clearly, in the latter case, the bribe-giver is no longer discouraged from reporting a bribe demand, and in fact has a strictly positive incentive to report. This, in turn, should deter the official from asking for bribes.

We conduct two additional treatments to examine potential obstacles in the way to a successful implementation of the impunity scheme above. First, there is the concern about spiteful retaliation from the official’s side. Accordingly, the first of our additional treatments introduces retaliation in the asymmetric liability scenario, where officials who escape conviction even after being reported can retaliate and reduce the citizen’s payoff. Though retaliation is costly to the official, its mere availability might dissuade citizens from reporting bribe demands if they anticipate spiteful actions from the official. The second of our final treatments addresses the practicality of bribe-returns to the citizen. We implement the asymmetric liability framework with bribes no longer returned, while officials continue to have the option of retaliating if conviction fails after whistle blowing. Since monetary incentives to report bribe demands are removed, this last treatment poses the toughest behavioural challenge to Basu’s proposal among the four situations.

We next describe the four games (Symmetric, Asymmetric, Retaliation and No-Refund) in detail along with the payoffs and experiment parameters.

**SYMMETRIC**

Figure 2 describes the extensive form. First, the official decides whether or not to demand a bribe. If he does not demand a bribe, the game ends and both players receive a payoff of 500 Indian rupees (Rs.). This outcome is the most efficient (in terms of joint payoff for the citizen and the official) and also equitable. Hence, it is salient that this is the socially preferred outcome.

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6 The experiments were run in India.
If the official asks for a bribe, he also needs to specify how much to ask for in multiples of Rs. 10 up to a maximum of Rs. 200. The citizen has three options: “Refuse to pay”, “Pay quietly”, or “Pay and report”. Refusing to pay the bribe is extremely costly for the citizen. In particular, the citizen’s payoff drops to Rs. 50, while the official retains 450 rupees, and the game ends. The decrease in the official’s payoff is motivated by detrimental effects that bribery has on social efficiency, which we wanted to capture in our design. Negative externalities have been previously captured in bribery experiments by imposing payoff reductions on other players in the lab (Abbink et al. 2002; Barr and Serra 2009; Cameron et al. 2009; Frank and Lambsdorff 2009). For our game, that did not seem appropriate since in contrast to collusive bribes, harassment bribes have no immediate effect on economic efficiency. If a service is delivered after a payment, then the bribe constitutes a mere redistribution from the citizen to the official. Yet we wanted to model the long-run detrimental effects of bribery, such as the loss of trust in good governance. Each act of bribery contributes to those damages, and everybody including those participating in bribery, suffers from them. We further wanted to keep the game as simple as possible, hence we chose this way of implementing the harmful effects of corruption.

If the citizen chooses to either pay quietly or pay and report the bribe, the game enters the next stage. Then a lottery determines whether the act of bribery is detected and fines are imposed. The probability of detection and prosecution depends on whether the citizen has reported the bribe exchange. If the citizen has paid quietly, then there is only a small chance that the act is discovered which we set to 5%. Paying and reporting increases this probability to 40%. Note that even if a bribe payment is reported, detection and prosecution is far from certain.

If prosecuted, the fines that citizens have to pay are the only difference between the symmetric and subsequent asymmetric treatments. For the experiment to be meaningful, we needed to parameterize such that behavioural effects can show up in either direction in each treatment. Accordingly, we chose a monetary fine of Rs. 250, leading to a final payoff of Rs. 200 for each player in case of prosecution. We chose the level of fine such that it was high enough to

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7 This upper bound on the bribe-ask was endogenously determined once other parameters in the model were set.
8 Since our experiment is one-shot, simplicity is of particular value in our design.
9 The probability of detection chosen is conservative but realistic as empirical estimates suggest that the fraction of reported bribe payments that leads to penalties is about 40% or slightly less in India (National Crime Records Bureau 2010).
serve as a deterrent, and yet not so high that expected payoffs become so trivial that no one would dare to engage in bribery.

A simple backward induction analysis of the game suggests that the monetary incentives are such that the citizen faced with a bribe demand will always pay quietly. The official anticipates this and chooses his best response - demand the maximum possible bribe.

![Game Tree Diagram]

**Figure 1.** The game tree – treatments without retaliation

**ASYMMETRIC**

This treatment introduces the briber leniency approach proposed by Basu (2011), and differs from the symmetric treatment only in the treatment of the citizen in case of detection. Here, only the official is fined (the same amount as in the symmetric treatment).10 The citizen is not held responsible and the bribe she has paid is returned to her. Consequently, monetary incentives change now in a way...

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10 Basu (2011) originally proposed that the fines for the official be doubled to keep the overall fine the same. We did not implement this because it would have been difficult to separate effects of the leniency program from effects of the higher fine.
that the citizen would always like to report if she is asked for a bribe. The backward induction logic in turn predicts that officials will shy away from demanding bribes, since not asking for a bribe is his best response to the citizen’s “pay-and-report” choice. Hence, we should observe no bribes demanded in equilibrium. Figure 1 above describes the extensive form of the above two treatments.
RETALIATION

The analysis above provides sufficient optimism on the deterrent effect of the leniency program, at least in theory. In reality, however, a relatively low conviction rate might discourage whistle-blowing considerably, especially if the citizen is apprehensive of further harassment from the official in the future. In this case, the prospect of getting the bribe back after successful prosecution must be weighed against potential retaliation if the prosecution is unsuccessful, leading to the official to remain in office. We consider such a situation in the *retaliation* treatment where the official has the option to be spiteful and reduce the citizen’s payoff if whistle blowing is unsuccessful. We assume though that the official needs to incur costs to do so. In particular, the official has to spend Rs. 50 to reduce the citizen’s final payoff by Rs. 150. This ratio (1:3) of cost to damages is consistent with previous experiments in which punishment options were studied (Gaechter et al. 2008).

*Figure 2. The game tree – treatments with retaliation*
Since it is costly, an official would never retaliate in the sub-game on the basis of monetary payoff gains alone. Hence, the theoretical money-maximising equilibrium prediction remains as before, no-bribery in equilibrium. A plethora of previous experiments however suggest that retaliation even if costly, is carried out often; sometimes to encourage socially desirable outcomes (Gaechter et al. 2008), sometimes to enforce socially inefficient outcomes (Abbink et al. 2010, 2012) and sometimes just out of spite (Masclet et al. 2009). Hence, we conjecture that even though not a part of the sub-game perfect equilibrium, a behavioral threat of retaliation can be credible and possibly diffuse the deterrent effects of the leniency program. The appendix contains a general proof of the equilibrium in the retaliation game.

**NO REFUND**

Our fourth treatment provides the toughest challenge for Basu’s proposal. The theoretical analysis of the game relies heavily on monetary incentives offered to the citizen to come forward and report a bribe. In particular, the prospect of getting her bribe money back when the official is convicted creates the positive incentive to self-report. However, this feature of Basu’s proposal has been criticised as rather naïve. In reality, bribers rarely get a receipt for their payment, so it will be hard enough to prove the corrupt act as such, let alone the exact amount that changed hands. Hence, in practice a leniency program is more likely to rely on the citizen’s intrinsic motivation to report a bribe. Such motivations can exist, and in fact a citizen who is sufficiently upset about the unfairness and immorality of the situation might be willing to report even without the incentive of material benefits.\(^\text{11}\) The victim can also consider taking action if she believes to be serving a greater societal benefit.\(^\text{12}\)

The no-refund treatment allows us to examine whether the leniency policy can work in the absence of monetary incentives. The treatment differs from the retaliation treatment only in the payoff for the citizen in case of the successful prosecution of the official. We introduce payoffs for the citizen such that it is not

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\(^\text{11}\) See for example, citizen efforts in reporting bribes in India through the web portal www.ipaidabribe.com.

\(^\text{12}\) In that case, one might even envision a situation where monetary incentives for whistle-blowers would prove to be counterproductive if such extrinsic motivations have a tendency to crowd out intrinsic motivations (Frey and Oberholzer-Gee 1997).
strictly better for the citizen to report a bribe as she does not get back the bribe even if whistle blowing turns out to be successful. The equilibrium prediction is now indeterminate. The citizen is indifferent between paying quietly and reporting the bribe payment. As a result, multiple sub-game perfect Nash equilibria are possible, and behavior in the experiment can offer some insight on preferred equilibrium behavior. Figure 2 describes the extensive form of the above two treatments.

3. Procedure

All experimental sessions were conducted in Hyderabad, India, with undergraduate and graduate (Masters) students. Three hundred and sixty subjects participated in the experiment. Subjects were recruited by sending email invitations to the student association listservs in each of three prominent institutes in the city - BITS Pilani’s Hyderabad Campus, NALSAR Law University and the University of Hyderabad. We selected these institutions since they enrol students from all over India allowing us to recruit a representative subject group. All four treatments were conducted in each institution. Each subject participated in only one of the treatments.

Subjects were randomly assigned to the role of an official or a citizen. The experimenter read out the instructions aloud. Our objective was to simulate the context of a corrupt transaction and evoke associated emotional and moral responses. Therefore, we use loaded language consistently throughout the instructions (see the Experimental Instructions). It is important to point out here that Barr and Serra (2009) find that bribes are less likely to be offered and accepted in the laboratory when the experimental instructions explicitly describe a bribery scenario instead of a more abstract description. Consequently, we can claim that if decisions were instead made under a more abstract description or under a greater social distance, then our current experiment results can be looked upon as setting the lower bounds of corrupt behavior. The use of context-specific

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13 It may even be costly for the citizen to report, in which case the citizen would have a strict incentive not to report. We abstracted from such costs, assuming a situation where reporting facilities are put in place that make reporting costs trivial. Our goal was to study the effectiveness of leniency out of pure intrinsic motivation, where there are no incentives for or against reporting.

14 While several alternative policy treatments would be interesting to examine, we restricted our attention to scenarios that are currently being considered in the field and ones that are more externally valid.

15 Abbink and Hennig-Schmidt (2006) and Krajcova and Ortmann (2008) however find no significant differences between neutral and bribery frames.
instructions also improves the external validity of our results. Furthermore, we used real currency in the experiments ensuring that participants could comprehend and relate to the decision making more easily.

Subjects are asked to fill in their decision sheet, such that they make decisions for every situation in which they can be during the game. After the experiment was over, subjects completed a survey questionnaire first before collecting their experiment earnings. To compute earnings, the decision sheet for each official was randomly matched with a citizen who participated in the same treatment at the same location. Based on the decisions of each player, the payoffs were calculated and distributed to participants in a sealed envelope. The subjects earned an average of Rs. 493.

4. Results

4.1 Survey Results

We find that even though our subjects were relatively young (average age of 22 years), 54.5% admitted to paying a bribe to obtain household services such as electricity, water or a telephone connection; financial services in a bank, post office, insurance company or transport office; educational services at a school or college. Additionally, participants seemed to be well aware of anti-corruption laws in India, with 63.1% reporting “If caught, both the bribe giver and taker are committing an illegal act”. They also report feeling uneasy with legalising bribery, with only 21.7% supporting the statement “Do you think that it is useful to have a system where there is a way to get what you want even if you have to bribe”. The data from the survey indicates that the subject pool was reasonably informed, had some exposure to corruption and had views and concerns about it, enabling an accurate examination of the effectiveness of different corruption policies. Note that subjects answered these questions at the end of the experiment after all experiment decisions had been made.

4.2 Experimental Results

We organize our results below in terms of the two players and their behavior. Citizens’ actions are reported first, since leniency proposals are directly aimed at changing their behavior. Officials’ anticipatory behavior is reported next. Table 1 provides an overview of the treatments, along with the predicted and actual equilibrium behavior of officials.
**Do Citizens report under impunity?**

Figures 3, 4 and 5 show the percentage of subjects who “Pay and report”, “Pay quietly” and “Refuse to pay”, respectively, in each of the four treatments. We find that consistent with Basu’s conjecture, the percentage of citizens who pay and then report the bribe-demand jumps from 25% to 59% under the asymmetric liability policy (a Mann-Whitney test rejects the null of equal means with p-value=0.001). Note that the increase in this percentage is not due to any perceptible change in the percentage of subjects who refuse to pay the bribe (see Figure 4). Rather it is caused by the decrease in the percentage of citizens who pay quietly (58% to 19%).

The increase in reporting behavior however, goes down significantly from the asymmetric to the no-refund treatment where officials are allowed to retaliate and strict financial incentives from reporting are removed (a Mann-Whitney test rejects the null of equal means with p-value=0.01). In fact, we find that the average percentage of citizens “paying and reporting” slides back towards the mean of the symmetric treatment (a Mann-Whitney test fails to reject the null of equal means with p-value=0.65). These results suggest that allowing the possibility of retaliation by officials deters citizens’ reporting behavior.

<table>
<thead>
<tr>
<th>Table 1. Treatments</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Treatment</strong></td>
</tr>
<tr>
<td>1. Symmetric</td>
</tr>
<tr>
<td>2. Asymmetric</td>
</tr>
<tr>
<td>3. Retaliation</td>
</tr>
<tr>
<td>4. No Refund</td>
</tr>
</tbody>
</table>

Further, exploring the data on the distribution of bribe demands, we find that irrespective of the treatment, citizens make their choices contingent on the officials’ bribe demand amounts – higher bribe demands are typically met with a “pay and report” while smaller bribe demands are often paid and not reported. Figure 6 describes the subject behaviour in the four treatments.
To investigate citizens’ behavior in more detail, we estimate a multinomial logit model where citizens’ choices are a function of the amount of bribe demanded, controlling for the education institutions as well as some of the demographic characteristics of the participants. Results of this estimation are reported in Table 2. We find that irrespective of the treatment, a one-rupee increase in the bribe-demand significantly decreases the relative-risk-ratio of being in the “pay quietly” group compared to being in the base comparison group of “pay and report”. For example, in the symmetric treatment, a rupee increase in the bribe-ask leads to a decrease in the relative risk of the subject being in the “pay quietly” group compared to the “pay and report” group by a factor of 0.99 (see row 1 and column 3 of Table 2), and similarly for all the other three treatments.
Table 2: Multinomial logit estimates of citizen decisions

<table>
<thead>
<tr>
<th>Refuse to pay RRR</th>
<th>Std. Err.</th>
<th>Pay quietly RRR</th>
<th>Std. Err.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bribe amount in symmetric treatment</td>
<td>1.000</td>
<td>0.002</td>
<td><strong>0.995</strong>*</td>
</tr>
<tr>
<td>Bribe amount in asymmetric treatment</td>
<td>0.996</td>
<td>0.002</td>
<td><strong>0.977</strong>*</td>
</tr>
<tr>
<td>Bribe amount in retaliation treatment</td>
<td>0.999</td>
<td>0.002</td>
<td><strong>0.989</strong>*</td>
</tr>
<tr>
<td>Bribe amount in no refund treatment</td>
<td>1.000</td>
<td>0.002</td>
<td><strong>0.992</strong>*</td>
</tr>
<tr>
<td>NALSAR</td>
<td>1.371</td>
<td>0.507</td>
<td>0.876</td>
</tr>
<tr>
<td>University of Hyderabad</td>
<td>4.244***</td>
<td>1.42</td>
<td>0.974</td>
</tr>
<tr>
<td>Hindu</td>
<td>1.306</td>
<td>0.540</td>
<td>1.144</td>
</tr>
<tr>
<td>Scheduled Caste</td>
<td>0.817</td>
<td>0.345</td>
<td>1.072</td>
</tr>
<tr>
<td>Male</td>
<td>1.113</td>
<td>0.332</td>
<td>1.373</td>
</tr>
</tbody>
</table>

Chi-square test for mean treatment differences when choice = Refuse to pay
(Bribe amount in) symmetric treatment = asymmetric treatment
p-value = 0.18
(Bribe amount in) asymmetric treatment = retaliation treatment
p-value = 0.35
(Bribe amount in) retaliation treatment = no-refund treatment
p-value = 0.64

Chi-square test for mean treatment differences when choice = Pay quietly
(Bribe amount in) symmetric treatment = asymmetric treatment
p-value = 0.00
(Bribe amount in) asymmetric treatment = retaliation treatment
p-value = 0.00
(Bribe amount in) retaliation treatment = no-refund treatment
p-value = 0.26

Pseudo R sqr. 0.102
Number of observations 3571

Notes: RRR is Relative risk ratio. “Pay and report” is the base outcome from the dependent variables. “BITS” is the omitted category from the independent variables. Errors are clustered by participants. ***p<0.01.

The results confirm our observation that across treatments, as the size of the bribe demand increases it is more likely to be reported. Put alternatively, a small amount of bribe demand is less likely to be reported. The latter observation reveals that subject behavior seems to indicate an established norm amongst the subject population where a large bribe demand is considered to be unfair, while a small bribe demand is acceptable and does not violate subjects’ fairness
perceptions.\footnote{In our sample 63\% of the subjects indicate that they have been exposed to corrupt practices and 47\% admit to have given bribes to receive important services.} Consequently, we observe an element of reciprocity in citizens’ choices where high bribe demands may be seen as unkind and trigger punishment. This is also observed in the symmetric treatment where reporting bribe demand is actually costly for the citizen. In contrast, low demands are possibly perceived as a kind act from the official, and tolerated in the asymmetric treatment where the subject has only to gain monetarily should she decide to report.

![Figure 4. Citizens’ decisions – all bribe offers](image)

The pairwise tests of treatments reported in Table 2, show that for the “pay quietly” option, behavior is significantly different across treatments for the first two comparisons, but not for the comparison between the retaliation and no-refund treatment. These tests also indicate that consistent with Figure 6, the percentage of subjects who “refuse to pay” remain unaltered across treatments. This suggests that at least in our experiment, citizens on an average do not change their behavior due to the introduction of leniency programs that might signal moral acceptability. Note that these results are borne out of a one-shot interaction, and in a repeated game scenario the moral principle of bribe-refusal may get
diluted through the subsequent establishment of evolutionary social norms that do not denounce bribe-giving.

Figure 5. Citizens’ decisions conditional on bribe demanded

Do officials demand fewer bribes?

We next examine whether giving immunity to citizens induces any anticipatory change in bribe demands by officials. Recall that Basu’s hypothesis was that the asymmetric liability ought to not only change citizens’ behaviour, but also discipline officials’ bribe demands. Accordingly, the backward induction analysis in our asymmetric and retaliation games predicts that in the unique sub-game perfect Nash equilibrium, officials do not demand any bribes. Overall, in our experiment the officials seem to show a weaker response to variations across treatments compared to citizens. One possibility is that they might not be thinking in a backwardly inductive manner always. Officials might also face an additional level of strategic uncertainty compared to citizens, who move after officials. This additional level of uncertainty can possibly dilute some of the treatment effects.

Figure 4 shows a clear tendency towards reduction in bribe demands by officials. We find that the percentage of officials who demand bribe drops from 38% in the symmetric liability situation to 24% in the asymmetric liability situation (a Mann-Whitney test rejects the null of equal means with p-value=0.08). The average bribe amount demanded by the officials also seems to go down from
Rs. 152 to Rs. 135 rupees, although this is not statistically significant.\textsuperscript{17} Figure 5 describes the average bribes asked in each treatment.

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{fraction_demanding_bribes.png}
\caption{Fraction demanding bribes}
\end{figure}

When officials are allowed to retaliate, 44% chose to pay money (Rs. 50) to reduce the citizen’s payoff (by Rs. 150) in the retaliation treatment and 33% in the no-refund treatment (this difference is not statistically significant). The proportion of officials demanding bribes increases as anticipated. In fact, behavior in the retaliation and no-refund treatments suggests that the disciplinary effects of briber impunity dissipate away considerably for officials. Figure 8 shows that 38% and 27% of officials demand bribes in the two treatments. The average amount of bribes demanded are Rs. 149 and Rs. 148 respectively, lower than in the symmetric treatment but higher than the asymmetric treatment.

We next report results from a probit regression with robust standard errors (see Table 3) that examine the determinants of official behavior, controlling for variables from our post-experiment survey.\textsuperscript{18} Results confirm our earlier

\begin{table}[h]
\centering
\begin{tabular}{|c|c|c|}
\hline
Treatment & Fraction demanding bribes & Mean amount of bribes demanded (Rs.) \\
\hline
1-Symmetric & 0.38 & 149 \\
2-Asymmetric & 0.24 & 148 \\
3-Retaliation & 0.38 & 149 \\
4-No refund & 0.27 & 148 \\
\hline
\end{tabular}
\caption{Fraction demanding bribes by treatment}
\end{table}

\textsuperscript{17} Despite the high bribe amount, the overall level of bribes is low, with at least 62% of officials not demanding bribes. This might indicate either aversion to corruption or risk aversion.

\textsuperscript{18} In our specification we included controls for religion (Hindu or non-Hindu), as well as interaction terms of the religion dummy with the treatment. Although our results seem to suggest
observation that asymmetric liability decreases bribe demand compared to the baseline situation of symmetric liability. Interestingly, we find that subjects who report that they are agreeable to giving bribes on the post-experiment survey are significantly more likely to ask for bribes. Also, male subjects seem to ask for more bribes than female students, a finding consistent with previous experimental findings (Alatas et al. 2009; Frank, Lambsdorff and Boehm 2011) as well as other empirical findings (Lambsdorff and Fink 2006). Chi-square tests for mean differences in treatments indicate further that official’s behavior is only marginally different between the symmetric and the retaliation treatment; official’s behavior is also not significantly different between the retaliation and the no-refund treatments.

Table 3: Probit estimates of Official behavior

<table>
<thead>
<tr>
<th></th>
<th>Bribe demand Coefficient (S.E.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Symmetric treatment</td>
<td>2.27*** (0.94)</td>
</tr>
<tr>
<td>Retaliating Treatment</td>
<td>0.90 (0.75)</td>
</tr>
<tr>
<td>No refund treatment</td>
<td>-0.02 (0.85)</td>
</tr>
<tr>
<td>Nalsar</td>
<td>-0.42 (0.26)</td>
</tr>
<tr>
<td>University of Hyderabad</td>
<td>-0.50 (0.32)</td>
</tr>
<tr>
<td>Male</td>
<td>0.46** (0.23)</td>
</tr>
<tr>
<td>Scheduled caste</td>
<td>0.25 (0.33)</td>
</tr>
<tr>
<td>Income (in thousands)</td>
<td>0.001 (0.005)</td>
</tr>
<tr>
<td>Agreeable to giving bribes (Q 16)</td>
<td>0.64*** (0.23)</td>
</tr>
<tr>
<td>Age</td>
<td>0.055 (0.06)</td>
</tr>
</tbody>
</table>

Chi-square test for mean treatment differences

- Symmetric = Retaliating: p-value = 0.09
- Retaliating = No Refund: p-value = 0.21
- Symmetric = No refund: p-value = 0.01

Pseudo R sqrr. 0.11
Number of observations 180

Notes: “Asymmetric” treatment, “Female” and “BITS” are the omitted categories from the independent variables. Robust standard errors are reported in brackets. The specification includes a religion dummy along with a set of interaction dummies between treatment dummies and the religion dummy. These are not reported here for ease of exposition, please refer to the Results section for a discussion. **p<0.05 and ***p<0.01.

that Hindus ask for bribes significantly more often, we realize that our total sample is relatively small (49 out of 147 Hindus ask for a bribe in all the four treatments together, and 8 out of 33 non-Hindus ask for a bribe in all the four treatments together) to convincingly conclude whether religion affects the propensity to engage in bribe-taking behavior. Accordingly, we have not reported the dummies related to religion and its interaction with the treatments.
Between the *symmetric* and the *no-refund* treatment, there are three features that are different; namely, addition of the asymmetric liability, official’s ability to retaliate, and removal of strict monetary incentives for the citizens. Therefore, we cannot discern causality in the difference in officials’ behavior between the two treatments. However, the chi-square tests of mean differences establish that officials demand significantly lower bribes compared to the *symmetric* treatment. We infer from this result that even in the strongest test of Basu’s policy, the disciplinary effect remains present.

5. Conclusion

Motivated by Basu’s (2011) policy proposal of providing legal immunity to bribe-givers in the case of harassment bribes and the ensuing debate, we evaluate the effectiveness of an asymmetric liability policy using laboratory experiments. We incorporate two extensions to the basic policy prescription by Basu to provide behavioural evidence on the effectiveness of the policy when bribe-takers have the option to retaliate on whistle-blowers if the prosecution is not successful, and the impact of non-monetary incentives in reporting bribe demands.

We find that compared to symmetric liability, allowing legal immunity to the bribe-givers increases reporting of bribe-demands and reduces the demand for bribes. We also find that a substantial minority of citizens refuse to pay bribes, across treatments despite significant monetary costs of doing so. This is not surprising, since refusals to pay may be driven more by principles rather than incentives. An implication of this is that Basu’s proposal does not change the moral authority of the law on citizens’ behaviour and consequently the proposed change in the liability does not have to be interpreted as a “license to bribe”.

Comparing behaviour in the retaliation and no-refund treatments shows that strict financial incentives do not necessarily drive reporting behavior. Non-monetary factors can motivate reporting behaviour as well. This could be beneficial in the field as often monetary incentives (such as return of the bribe money) are difficult to operationalize.

Analysis of officials’ behaviour suggests that significant challenges to implementing Basu’s proposal emerge when officials are able to retaliate against citizens who report bribe demands. We find that in such situations, both bribe demands and reporting return closer to the original levels of the symmetric liability case.
Our finding suggests that Basu’s proposal should be implemented along with complementary measures such as policies to rotate officials in different posit to mitigate the effectiveness of retaliation against citizens who report bribe demands (see, for example, Abbink, 2004). In addition, to protect citizens’ vulnerability, whistle blowers may need to be given protection such as anonymity for reporters. Finally, policymakers could aim to increase the probability of successful prosecution after whistle blowing.

We conclude in a similar vein to Dufwenberg and Spagnolo (2011) that bolstering the institutional set-up is important to realize the full benefits of leniency policy. Basu’s policy proposal can be a credible step towards fighting harassment of bribes as long as care is taken to introduce additional measures that reduce the power of officials, improve the protection of whistle blowers and promote better prosecution of the accused.

References

Appendix

We construct the SPNE of the bribery game for the retaliation treatment described above. In this treatment, the official has the option to retaliate and inflict financial loss on the citizen, if the citizen is unsuccessful in convicting the official. If conviction is successful the bribe is returned to the citizen.

In the symmetric and asymmetric treatments, officials do not have option to retaliate. They are essentially simpler cases of the analysis below and differ mainly in the citizen’s payoffs.

Define the following game: There are two players, the citizen and the official. The official receives a salary $W$. The citizen is entitled to receive a service of value $S$. The official can choose to ask for a bribe ($B > 0$) to provide the service to the citizen. He can also decide not to ask for a bribe ($B = 0$) and still provide $S$ to the citizen. The citizen in her turn can choose one of three actions. She can (1) pay quietly, (2) pay and report the bribe demand, or (3) refuse to pay the bribe.

If the citizen chooses to pay quietly then there are two possibilities. There is a small chance that the official is caught and fined. In that case the payoffs are $\hat{W} - F$ and $\hat{S}$ respectively to the official and to the citizen. Define $F$ to be the fine paid by the official. If the official is not caught (with a probability of $1 - p'$), the payoffs are $\hat{W} + B$ and $\hat{S} - B$, respectively. We assume $\hat{W} < W$ and $\hat{S} < S$ to represent a loss in overall welfare due to the prevailing corruption in the economy.

If the citizen chooses to pay and report, then the official is caught and fined with probability $p$. In that case, the final payoffs are $\hat{W} - F$ to the official, and $\hat{S}$ to the citizen. Paying and reporting can be unsuccessful with probability $1 - p$. Then the official has the option to retaliate by spending $R$ to inflict harm $3R$ on the citizen. In that case, the payoffs are $\hat{W} + B - R$ to the official and $\hat{S} - B - 3R$ to the citizen. If the official decides to acquiesce, the payoffs are $\hat{W} + B$ and $\hat{S} - B$ respectively for the official and the citizen.

Finally, if the citizen refuses to pay the bribe, the payoffs are $\hat{W}$ to the official and $N$ to the citizen. We assume $N < \hat{S} - B - 3R$.

Claim: The Subgame Perfect Nash Equilibrium of the above game consists of $(O, Pay and report)$ if the following two conditions hold
i. \( p > p' \)
ii. \( p > \frac{\hat{W} + B - W}{B + F} \)

**Proof:** The analysis is straightforward. Notice “retaliate” is strictly dominated by “acquiesce” for the official for all \( R > 0 \).

Assuming a utility dependent on only money-maximization, we can claim that as long as

\[
p > p' \tag{1}
\]

then

\[
\text{payoff}(\text{pay and report}) > \text{payoff}(\text{pay quietly})
\]

Therefore, for the citizen, *pay and report* is strictly preferred to *pay quietly*. Hence, the citizen always chooses to *pay and report*.

The official at the initial decision node will ask for a bribe if

\[
\text{payoff}(B = 0) > \text{payoff}(B > 0)
\]

or,

\[
W > \hat{W} + B - p. [B + F]
\]

or,

\[
p > \frac{\hat{W} + B - W}{B + F} \tag{2}
\]

Hence, if conditions (1) and (2) hold, the SPNE is \((O, \text{Pay and report})\), where the citizen always chooses to pay and report, and the official chooses not to ask for a bribe, i.e., no bribery in equilibrium.
EXPERIMENTAL INSTRUCTIONS

INSTRUCTIONS – Treatment 1

Player No.________

You have been randomly assigned the role of Citizen/Official in today’s experiment.

General

Welcome to today’s economics experiment. This is an experiment in decision making which will provide you an opportunity to earn money. The amount of money you earn depends on your decisions and a randomly matched participant’s decisions in the experiment. Your earnings in the experiment will be paid to you in cash privately, at the end of the experiment. Please do not talk to each other during the experiment.

In the experiment you will be matched with another player in the room for the rest of the experiment. You will not know who you are matched with, either during or after the experiment. You and the matched player will be presented with an economic decision-making situation that resembles a real-life situation. One of you will be randomly assigned a role as a Government Official, and the other as a Citizen. You will be provided with a Personal Record Sheet that will state the role you have been assigned in the experiment.

Overview of the Experiment

In this experiment, the Official can decide to ask the Citizen for a bribe or can decide not to ask the citizen for a bribe.

If the Official decides to ask for a bribe, then the Official has to choose the amount he wants as bribe from the Citizen. The Citizen then has three options. S/he can refuse to pay the bribe, pay the bribe, or pay the bribe and report the bribe demand. Reporting the bribe makes it much more likely that the Official is caught and fined.

Although, the game has two stages in which one or the other player needs to make a decision, everybody needs to fill in the decision sheet only once. You will make decisions for every situation in which you can be during the game. We will then collect your decision sheets and pay you according to your decision and the decisions of the other participant you are matched with.
Attached is a Figure which summarizes the structure of the experiment. The sheet labelled “Questions” provides some examples that might help you in understanding the payoffs associated with different decisions. However, before looking at the examples, let us first look at the detailed instructions for each participant.

**Detailed Instructions for Officials**

If you are assigned the role of the Official in today’s experiment, you have to first decide whether to ask the Citizen for a bribe or not. If you decide not to ask for a bribe, then you get Rs. 500, and the Citizen gets Rs. 500.

If instead, you decide to ask for a bribe, you have to decide how much to ask for. You can ask any amount (B) between 10 and 200 in multiples of Rs. 10.

The Citizen decides whether or not to refuse to pay the bribe, or to pay the bribe without reporting, or to pay the bribe and report your bribe demand. Reporting determines the probability with which you and the citizen are fined. If the Citizen does not report the bribe, then the probability of you and the Citizen being fined is 5%. If the Citizen reports the bribe, then this probability increases to 40%.

After the Citizen has decided, a random draw determines whether there is sufficient evidence that you are fined. If there is not sufficient evidence, then you receive Rs. 450 plus the bribe you have asked for. The Citizen receives Rs. 450 less the bribe s/he has paid to you. If there is sufficient evidence, then you and the Citizen each receive Rs. 200.

**Detailed Instructions for Citizens**

If you are randomly assigned the role of the Citizen in today’s experiment, it will be the Official who makes a decision first and you respond to it. First the Official decides whether or not to ask for a bribe. If s/he does not ask for a bribe, then you get Rs. 500, and the Official gets Rs. 500.

If instead, the Official decides to ask for a bribe, you are told how much the Official asks for.

If the Official asks for a bribe, you have the following options. First, you can refuse to pay the bribe. In this case the game ends and your payoff is Rs. 50; the Official’s payoff is Rs. 450. If you decide to pay the bribe, you can decide whether or not to report the Official’s bribe demand. Your
decision to report determines the probability with which the Official and you are fined. If you do not report the bribe, then the probability of being fined is 5%. If you report the bribe, then this probability increases to 40%.

After you have decided to pay the bribe, a random draw determines whether there is sufficient evidence that the Official and you are fined. If there is not sufficient evidence, then you receive Rs. 450 minus the bribe you paid out. The Official receives Rs. 450 plus the bribe you have paid to him/her. If there is sufficient evidence, then you and the Official each receive Rs. 200.

As a Citizen you make decisions at the second stage, after the Official has decided on the bribe demand. The Official can either not demand a bribe, in which case you do not make a decision. If the Official demands a bribe, s/he can ask for twenty different amounts of bribe from 10 to 200 (in steps of 10). We ask you to make a decision for each bribe amount asked from you beforehand. Your decision sheet comprises a table with all twenty possible amounts. For each amount you tick a box whether you want to refuse to pay the bribe, pay without reporting, or pay and report the bribe demand if the Official demands this amount. We will then collect the Official’s decision sheets together with yours, and carry out the decision you specified for the amount the Official has chosen (if any).

INSTRUCTIONS- Treatment 2

Player No. ________

You have been randomly assigned the role of Citizen/Official in today’s experiment.

General

Welcome to today’s economics experiment. This is an experiment in decision making which will provide you an opportunity to earn money. The amount of money you earn depends on your decisions and a randomly matched participant’s decisions in the experiment. Your earnings in the experiment will be paid to you in cash privately, at the end of the experiment. Please do not talk to each other during the experiment.
In the experiment you will be matched with another player in the room for the rest of the experiment. You will not know who you are matched with, either during or after the experiment. You and the matched player will be presented with an economic decision-making situation that resembles a real-life situation. One of you will be randomly assigned a role as a Government Official, and the other as a Citizen. You will be provided with a Personal Record Sheet that will state the role you have been assigned in the experiment.

**Overview of the Experiment**

In this experiment, the Official can decide to ask the Citizen for a bribe or can decide not to ask the citizen for a bribe.

If the Official decides to ask for a bribe, then the Official has to choose the amount he wants as bribe from the Citizen. The Citizen then has three options. S/he can refuse to pay the bribe, pay the bribe, or pay the bribe and report the bribe demand. Reporting the bribe makes it much more likely that the Official is caught and fined.

Although, the game has two stages in which one or the other player needs to make a decision, everybody needs to fill in the decision sheet only once. You will make decisions for every situation in which you can be during the game. We will then collect your decision sheets and pay you according to your decision and the decisions of the other participant you are matched with.

Attached is a Figure which summarizes the structure of the experiment. The sheet labelled “Questions” provides some examples that might help you in understanding the payoffs associated with different decisions. However, before looking at the examples, let us first look at the detailed instructions for each participant.

**Detailed Instructions for Officials**

If you are assigned the role of the Official in today’s experiment, you have to first decide whether to ask the Citizen for a bribe or not. If you decide not to ask for a bribe, then you get Rs. 500, and the Citizen gets Rs. 500.

If instead, you decide to ask for a bribe, you have to decide how much to ask for. You can ask any amount (B) between 10 and 200 in multiples of Rs. 10.
The Citizen decides whether or not to refuse to pay the bribe, or to pay the bribe without reporting, or to pay the bribe and report your bribe demand. Reporting determines the probability with which you are fined. If the Citizen does not report the bribe, then the probability of you being fined is 5%. If the Citizen reports the bribe, then this probability increases to 40%.

After the Citizen has decided, a random draw determines whether there is sufficient evidence that you are fined. If there is not sufficient evidence, then you receive Rs. 450 plus the bribe you have asked for. The Citizen receives Rs. 450 less the bribe s/he has paid to you. If there is sufficient evidence, then you receive a fine and you must return the bribe and in addition pay a fine. Your payoff after this stage is then Rs. 200. The Citizen gets the bribe back, hence his/her payoff is Rs. 450.

**Detailed Instructions for Citizens**

If you are randomly assigned the role of the Citizen in today’s experiment, it will be the Official who makes a decision first and you respond to it. First the Official decides whether or not to ask for a bribe. If s/he does not ask for a bribe, then you get Rs. 500, and the Official gets Rs. 500.

If instead, the Official decides to ask for a bribe, you are told how much the Official asks for. If the Official asks for a bribe, you have the following options. First, you can refuse to pay the bribe. In this case the game ends and your payoff is Rs. 50; the Official’s payoff is Rs. 450. If you decide to pay the bribe, you can decide whether or not to report the Official’s bribe demand. Your decision to report determines the probability with which the Official is fined. If you do not report the bribe, then the probability of the Official being fined is 5%. If you report the bribe, then this probability increases to 40%.

After you have decided to pay the bribe, a random draw determines whether there is sufficient evidence that the Official is fined. If there is not sufficient evidence, then you receive Rs. 450 minus the bribe you paid out. The Official receives Rs. 450 plus the bribe you have paid to him/her. If there is sufficient evidence, then you get back the bribe you have paid and your payoff after this stage is Rs. 450. The Official receives a fine, His/her payoff after this stage is then Rs. 200.

As a Citizen you make decisions at the second stage, after the Official has decided on the bribe
demand. The Official can either not demand a bribe, in which case you do not make a decision. If the Official demands a bribe, s/he can ask for twenty different amounts of bribe from 10 to 200 (in steps of 10). We ask you to make a decision for each bribe amount asked from you beforehand. Your decision sheet comprises a table with all twenty possible amounts. For each amount you tick a box whether you want to refuse to pay the bribe, pay without reporting, or pay and report the bribe demand if the Official demands this amount. We will then collect the Official’s decision sheets together with yours, and carry out the decision you specified for the amount the Official has chosen (if any).

INSTRUCTIONS – Treatment 3

Player No. _______

You have been randomly assigned the role of Citizen/Official in today’s experiment.

General

Welcome to today’s economics experiment. This is an experiment in decision making which will provide you an opportunity to earn money. The amount of money you earn depends on your decisions and a randomly matched participant’s decisions in the experiment. Your earnings in the experiment will be paid to you in cash privately, at the end of the experiment. Please do not talk to each other during the experiment.

In the experiment you will be matched with another player in the room for the rest of the experiment. You will not know who you are matched with, either during or after the experiment. You and the matched player will be presented with an economic decision-making situation that resembles a real-life situation. One of you will be randomly assigned a role as a Government Official, and the other as a Citizen. You will be provided with a Personal Record Sheet that will state the role you have been assigned in the experiment.

Overview of the Experiment

In this experiment, the Official can decide to ask the Citizen for a bribe or can decide not to ask the citizen for a bribe.
If the Official decides to ask for a bribe, then the Official has to choose the amount he wants as bribe from the Citizen. The Citizen then has three options. S/he can refuse to pay the bribe, pay the bribe, or pay the bribe and report the bribe demand. Reporting the bribe makes it much more likely that the Official is caught and fined.

If the Citizen has reported the bribe, but the authorities have not found sufficient evidence to fine the Official, then the game moves to another stage, in which the Official can reduce the Citizen’s income by incurring a cost.

Though the game has up to three stages in which one player needs to make a decision, everybody needs to fill in the decision sheet only once. You will make decisions for every situation in which you can be during the game. We will then collect your decision sheets and pay you according to your decision and the decisions of the other participant you are matched with.

Attached is a Figure which summarizes the structure of the experiment. The sheet labelled “Questions” provides some examples that might help you in understanding the payoffs associated with different decisions. However, before looking at the examples, let us first look at the detailed instructions for each participant.

**Detailed Instructions for Officials**

If you are assigned the role of the Official in today’s experiment, you have to first decide whether to ask the Citizen for a bribe or not. If you decide not to ask for a bribe, then you get Rs. 500, and the Citizen gets Rs. 500.

If instead, you decide to ask for a bribe, you have to decide how much to ask for. You can ask any amount (B) between 10 and 200 in multiples of Rs. 10.

The Citizen decides whether or not to refuse to pay the bribe, or to pay the bribe without reporting, or to pay the bribe and report your bribe demand. Reporting determines the probability with which you are fined. If the Citizen does not report the bribe, then the probability of you being fined is 5%. If the Citizen reports the bribe, then this probability increases to 40%.

After the Citizen has decided, a random draw determines whether there is sufficient evidence that you are fined. If there is not sufficient evidence, then you receive Rs. 450 plus the bribe you have asked for. The Citizen receives Rs. 450 less the bribe s/he has paid to you. If there is sufficient
evidence, then you receive a fine and you must return the bribe and in addition pay a fine. Your payoff after this stage is then Rs. 200. The Citizen gets the bribe back; hence his/her payoff is Rs. 450.

If the Citizen has reported the bribe, but there has not been sufficient evidence, then the game enters a third decision stage. You can spend Rs. 50 from your final earnings to reduce the Citizen’s payoff by Rs. 150; in that case, you will receive as your final payments Rs. 400 plus the amount of bribe you had asked for earlier; the Citizen will end up receiving Rs. 300 less the amount of bribe s/he paid to you. If you choose not to reduce the Citizen’s payoff, then the final payoffs are the payoffs after stage 2: You receive Rs. 450 plus the bribe, the Citizen receives Rs. 450 less the bribe.

As an Official you make decisions at up to two stages. In the beginning you decide on whether you ask for a bribe and if so, how much you demand. If you decide to ask for a bribe, then it is possible that you need to make another decision at the third stage. In case that the Citizen reports the bribe but you do not get fined you can choose whether or not to reduce the Citizen’s payoff. We ask you to make this decision already in the beginning. It is possible that your decision for the third stage is not carried out, depending on the decisions of the Citizen and the outcome of the random draw. We nevertheless ask you to make a decision for this case beforehand, such that we do not need to return the decision sheet to you until the game is completed.

**Detailed Instructions for Citizens**

If you are randomly assigned the role of the Citizen in today’s experiment, it will be the Official who makes a decision first and you respond to it. First the Official decides whether or not to ask for a bribe. If s/he does not ask for a bribe, then you get Rs. 500, and the Official gets Rs. 500.

If instead, the Official decides to ask for a bribe, you are told how much the Official asks for. If the Official asks for a bribe, you have the following options. First, you can refuse to pay the bribe. In this case the game ends and your payoff is Rs. 50; the Official’s payoff is Rs. 450. If you decide to pay the bribe, you can decide whether or not to report the Official’s bribe demand. Your decision to report determines the probability with which the Official is fined. If you do not report the bribe, then the probability of the Official being fined is 5%. If you report the bribe, then this probability increases to 40%.
After you have decided to pay the bribe, a random draw determines whether there is sufficient evidence that the Official is fined. If there is not sufficient evidence, then you receive Rs. 450 minus the bribe you paid out. The Official receives Rs. 450 plus the bribe you have paid to him/her. If there is sufficient evidence, then you get back the bribe you have paid and your payoff after this stage is Rs. 450. The Official receives a fine, his/her payoff after this stage is then Rs. 200.

If you have reported the bribe, but there has not been sufficient evidence, then the game enters a third decision stage. The Official can spend Rs. 50 from his/her final earnings to reduce your payoff by Rs. 150; in that case, you will receive as your final payments Rs. 300 less the amount of bribe you paid to the Official. The Official receives Rs. 400 plus the amount of bribe you have paid to him/her. If the Official chooses not to reduce your payoff, then the final payoffs are the payoffs after stage 2: You receive Rs. 450 less the bribe, the Official receives Rs. 450 plus the bribe.

As a Citizen you make decisions at the second stage, after the Official has decided on the bribe demand. The Official can either not demand a bribe, in which case you do not make a decision. If the Official demands a bribe, s/he can ask for twenty different amounts of bribe from 10 to 200 (in steps of 10). We ask you to make a decision for each bribe amount asked from you beforehand. Your decision sheet comprises a table with all twenty possible amounts. For each amount you tick a box whether you want to refuse to pay the bribe, pay without reporting, or pay and report the bribe demand if the Official demands this amount. We will then collect the Official’s decision sheets together with yours, and carry out the decision you specified for the amount the Official has chosen (if any).

INSTRUCTIONS – Treatment 4

Player No.________

You have been randomly assigned the role of Citizen/Official in today’s experiment.

General

Welcome to today’s economics experiment. This is an experiment in decision making which will
provide you an opportunity to earn money. The amount of money you earn depends on your decisions and a randomly matched participant’s decisions in the experiment. Your earnings in the experiment will be paid to you in cash privately, at the end of the experiment. Please do not talk to each other during the experiment.

In the experiment you will be matched with another player in the room for the rest of the experiment. You will not know who you are matched with, either during or after the experiment. You and the matched player will be presented with an economic decision-making situation that resembles a real-life situation. One of you will be randomly assigned a role as a Government Official, and the other as a Citizen. You will be provided with a Personal Record Sheet that will state the role you have been assigned in the experiment.

**Overview of the Experiment**

In this experiment, the Official can decide to ask the Citizen for a bribe or can decide not to ask the citizen for a bribe.

If the Official decides to ask for a bribe, then the Official has to choose the amount he wants as bribe from the Citizen. The Citizen then has three options. S/he can refuse to pay the bribe, pay the bribe, or pay the bribe and report the bribe demand. Reporting the bribe makes it much more likely that the Official is caught and fined.

If the Citizen has reported the bribe, but the authorities have not found sufficient evidence to fine the Official, then the game moves to another stage, in which the Official can reduce the Citizen’s income by incurring a cost.

Though the game has up to three stages in which one player needs to make a decision, everybody needs to fill in the decision sheet only once. You will make decisions for every situation in which you can be during the game. We will then collect your decision sheets and pay you according to your decision and the decisions of the other participant you are matched with.

Attached is a Figure which summarizes the structure of the experiment. The sheet labelled “Questions” provides some examples that might help you in understanding the payoffs associated with different decisions. However, before looking at the examples, let us first look at the detailed instructions for each participant.
Detailed Instructions for Officials

If you are assigned the role of the Official in today’s experiment, you have to first decide whether to ask the Citizen for a bribe or not. If you decide not to ask for a bribe, then you get Rs. 500, and the Citizen gets Rs. 500.

If instead, you decide to ask for a bribe, you have to decide how much to ask for. You can ask any amount (B) between 10 and 200 in multiples of Rs. 10.

The Citizen decides whether or not to refuse to pay the bribe, or to pay the bribe without reporting, or to pay the bribe and report your bribe demand. Reporting determines the probability with which you are fined. If the Citizen does not report the bribe, then the probability of you being fined is 5%. If the Citizen reports the bribe, then this probability increases to 40%.

After the Citizen has decided, a random draw determines whether there is sufficient evidence that you are fined. If there is not sufficient evidence, then you receive Rs. 450 plus the bribe you have asked for. The Citizen receives Rs. 450 less the bribe s/he has paid to you. If there is sufficient evidence, then you receive a fine. Your payoff after this stage is then Rs. 200. The Citizen does not get the bribe back, hence his/her payoff is Rs. 450 less the bribe s/he paid to you.

If the Citizen has reported the bribe, but there has not been sufficient evidence, then the game enters a third decision stage. You can spend Rs. 50 from your final earnings to reduce the Citizen’s payoff by Rs. 150; in that case, you will receive as your final payments Rs. 400 plus the amount of bribe you had asked for earlier; the Citizen will end up receiving Rs. 300 less the amount of bribe s/he paid to you. If you choose not to reduce the Citizen’s payoff, then the final payoffs are the payoffs after stage 2: You receive Rs. 450 plus the bribe, the Citizen receives Rs. 450 less the bribe.

As an Official you make decisions at up to two stages. In the beginning you decide on whether you ask for a bribe and if so, how much you demand. If you decide to ask for a bribe, then it is possible that you need to make another decision at the third stage. In case that the Citizen reports the bribe but you do not get fined you can choose whether or not to reduce the Citizen’s payoff. We ask you to make this decision already in the beginning. It is possible that your decision for the third stage is not carried out, depending on the decisions of the Citizen and the outcome of the random draw. We nevertheless ask you to make a decision for this case beforehand, such that we
do not need to return the decision sheet to you until the game is completed.

**Detailed Instructions for Citizens**

If you are randomly assigned the role of the Citizen in today’s experiment, it will be the Official who makes a decision first and you respond to it. First the Official decides whether or not to ask for a bribe. If s/he does not ask for a bribe, then you get Rs. 500, and the Official gets Rs. 500.

If instead, the Official decides to ask for a bribe, you are told how much the Official asks for.

If the Official asks for a bribe, you have the following options. First, you can refuse to pay the bribe. In this case the game ends and your payoff is Rs. 50; the Official’s payoff is Rs. 450. If you decide to pay the bribe, you can decide whether or not to report the Official’s bribe demand. Your decision to report determines the probability with which the Official is fined. If you do not report the bribe, then the probability of the Official being fined is 5%. If you report the bribe, then this probability increases to 40%.

After you have decided to pay the bribe, a random draw determines whether there is sufficient evidence that the Official is fined. If there is not sufficient evidence, then you receive Rs. 450 minus the bribe you paid out. The Official receives Rs. 450 plus the bribe you have paid to him/her. If there is sufficient evidence, you still do not get back the bribe you have paid and your payoff remains Rs. 450 minus the bribe you paid out. The Official however, receives a fine, and his/her payoff after this stage is then Rs. 200.

If you have reported the bribe, but there has not been sufficient evidence, then the game enters a third decision stage. The Official can spend Rs. 50 from his/her final earnings to reduce your payoff by Rs. 150; in that case, you will receive as your final payments Rs. 300 less the amount of bribe you paid to the Official. The Official receives Rs. 400 plus the amount of bribe you have paid to him/her. If the Official chooses not to reduce your payoff, then the final payoffs are the payoffs after stage 2: You receive Rs. 450 less the bribe, the Official receives Rs. 450 plus the bribe.

As a Citizen you make decisions at the second stage, after the Official has decided on the bribe demand. The Official can either not demand a bribe, in which case you do not make a decision. If the Official demands a bribe, s/he can ask for twenty different amounts of bribe from 10 to 200 (in
steps of 10). We ask you to make a decision for each bribe amount asked from you beforehand. Your decision sheet comprises a table with all twenty possible amounts. For each amount you tick a box whether you want to refuse to pay the bribe, pay without reporting, or pay and report the bribe demand if the Official demands this amount. We will then collect the Official’s decision sheets together with yours, and carry out the decision you specified for the amount the Official has chosen (if any).