

Appendix A Supplementary material

A.1 Experiment instructions (High Ext. High Ben. Treatment)

Welcome! And thanks for participating. This is an experiment to evaluate how people make economic decisions. If you pay attention, the instructions will help you make these decisions and earn a sum of money. This sum depends both on yours decisions during the experiment , and on the decisions of the other participants.

The earnings will be calculated in tokens, converted to Euro at the end of the experiment and paid in cash at the end of today's session. For every 5 tokens, you will receive 1 Euro. In addition, you will receive 5 Euros for your participation.

Your answers will remain confidential and final payments will be made in a sealed envelope. You are not obliged to communicate your earnings to anyone. It is important not to communicate in any way with other people in the room until the end of the experiment. The use of cell phones is prohibited. Please take a moment to turn off your cell phones and put away all outside materials. You can ask questions at any time. If you have a question, please raise your hand and we will respond in private.

Anonymity. When you entered the room , you took a piece of paper with a number. This is your identification code and will be used to guarantee your anonymity. The decisions you make during the experiment will be matched to your identification code, never to your name. No one (i.e., neither the people who will analyze the data, nor other participants, nor any other person) will ever be able to match your name to the decisions you will take during the experiment.

Ten Rounds. This experiment consists of **ten rounds**. Each round is completely independent of the others: the decisions taken in a round will not influence neither your gain nor the procedures in the following rounds. At the end of the experiment, the computer will randomly choose one round for your payment.

Roles and Groups. At the beginning of today's experiment, you will be randomly assigned to one of four roles: a citizen, a public official, another member of society, a monitor.

At the beginning of each round, the computer will randomly form **groups of four participants**, each with a different role. The composition of the groups will randomly change from round to round. You will never know the identity of the other members of the group, nor will the other members of the group know yours.

Tasks. At the beginning of each round every player receives **50 tokens**. Each round consists of **four stages**.

First stage: the citizen's task. If you are a citizen, you can decide to offer a bribe to the public official in your group.

- If you do not offer a bribe to the public official, your payoff remains equal to 50 tokens. The round ends and the next one starts.
- If you offer a bribe to the public official, you offer 3 tokens to the public official. These 3 tokens will be returned to you only if the public official rejects the bribe. Please see the second stage.

Second stage: the public official's task. If you are a public official, you will be notified of the decision made by the citizen in your group. If the citizen in your group has offered you a bribe, you can decide whether to accept it or reject it. Accepting the bribe implies accepting the 3 tokens offered by the citizen and granting a favour to the citizen, which causes a loss to the other members of society. Specifically:

If you accept the bribe:

- You receive 18 additional tokens (in addition to the 3 tokens offered by the citizen);
- The citizen receives 18 additional tokens;
- Each other member of society in this room loses 6 tokens, and may lose more tokens if bribes are offered and accepted in the other groups in this room;
- You and the citizen may receive a punishment by the monitor (see the fourth stage).

If you reject the bribe:

- You receive 0 additional tokens (and return the 3 tokens to the citizen);
- The citizen receives 0 additional tokens;
- Each other member of society in this room may lose tokens if bribes have been offered and accepted in the other groups in this room;
- You and the citizen may receive a punishment by the monitor (see the fourth stage).

Third stage: the role of the other members of society. If you are another member of society, your role is idle: you cannot take any decision. *Per each bribe* offered and accepted in this room, you lose 6 tokens.

While waiting for the other participants' decisions, we will ask you to answer some questions, with no effects on your earnings.

Fourth stage: the monitor's task. If you are a monitor, you will receive information about the decisions made by the citizen and the public official in your group.

You can choose whether—and *how much*—to punish the citizen and/or the public official, at your own expenses. In particular, you can choose an amount between 0 and ten tokens to punish the citizen, and an amount between 0 and ten tokens to punish the public official. Your payoff will be reduced by the amount of punishment you have chosen.

The amount of punishment that you choose to punish the citizen will be multiplied by 2, and the payoff of the citizen will be reduced by this doubled amount. The same holds for the public official.

For example, if you spend 5 tokens to punish the citizen and 2 tokens to punish the public official: your earnings are reduced by 7 tokens ($= 5 + 2$); the citizen's earnings are reduced by ten tokens ($= 5 \times 2$); the earnings of the public official are reduced by 4 coins ($= 2 \times 2$).

A.2 Sample balance and descriptives

Table A3 reports the descriptive statistics and randomization tests of a number of individual-level characteristics, as obtained from the participants' answers to the post-experiment survey. The χ^2 statistics indicate that the sample is balanced across treatments and roles along individual demographics (gender, age, education, field of study) and risk aversion. The F-statistic further indicates no overall differences in individual-level characteristics across treatments and roles. From these tests, we conclude that the sample is balanced, confirming that the randomization was successful.

Column 1 of Table A3 reports descriptive statistics for the full sample. The fraction of females was 0.48 (Std. Dev. 0.50). The average age was 24 years (Std. Dev. 4.07; Median 23; Min 19; Max 50). Most subjects (51.17%) had at least a Bachelor Degree, from different fields of study, mainly Arts and Humanities (21.48%), and Engineering and Architecture (17.58%). On average, subjects were risk averse (*Risk Aversion*: Mean 5.95; Std. Dev. 1.96; Median 6; Min 1; Max 10).

A.3 Additional figures and tables

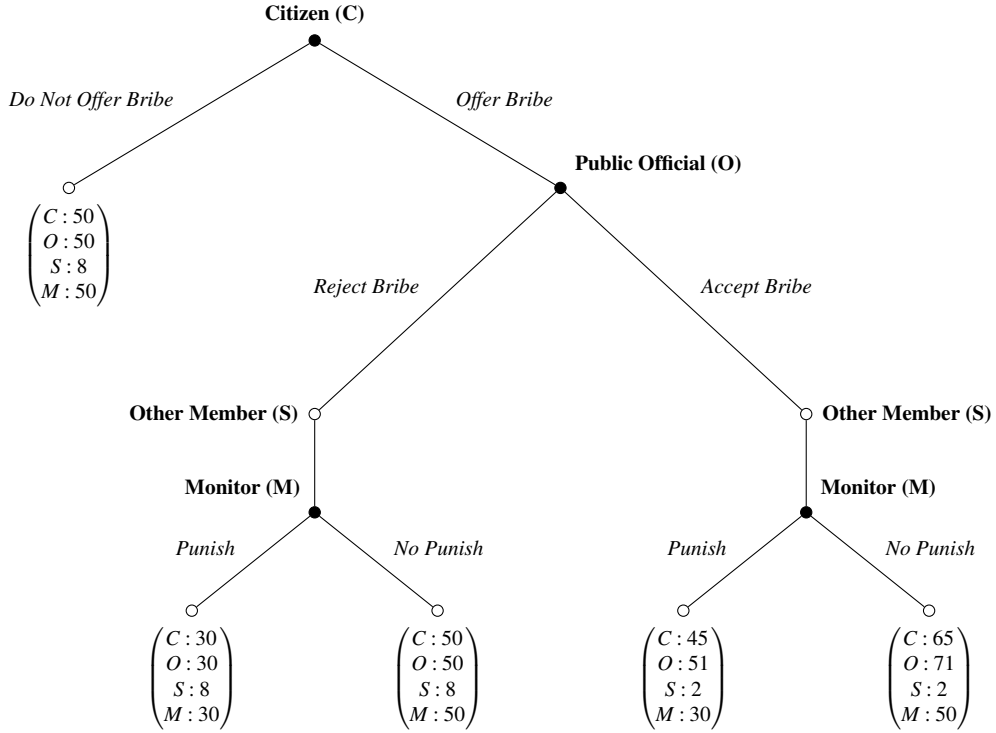


Figure (A1) *The structure of the game: An illustrative example with $\alpha_H = 6$; $\gamma_H = 2$; $p_C, p_O = 10$; $\underline{n} = 7$*

Notes: This is an illustrative example of the structure of the game under the High Ext. ($\gamma_H = 2$) High Ben. ($\alpha_H = 6$) treatment, with $p_C = 10$ and $p_O = 10$ being the amount chosen by the monitor to punish the citizen and the official in his group, respectively (if a bribe was exchanged); $\underline{n} = 7$ the total number of bribes exchanged in the other seven citizen-official pairs; 50 the initial endowment; 3 the size of the bribe.

Table (A1) Number of subjects per treatment, role, and gender

Treatment	Citizen			Officials			Other members			Monitors			All Roles		
	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot	M	F	Tot
LE LB	6	10	16	9	7	16	9	7	16	7	9	16	31	33	64
LE HB	6	10	16	10	6	16	11	5	16	6	10	16	33	31	64
HE LB	9	7	16	8	8	16	7	9	16	9	7	16	33	31	64
HE HB	9	7	16	12	4	16	5	11	16	9	7	16	35	29	64
<i>Total</i>	<i>30</i>	<i>34</i>	<i>64</i>	<i>39</i>	<i>25</i>	<i>64</i>	<i>32</i>	<i>32</i>	<i>64</i>	<i>31</i>	<i>33</i>	<i>64</i>	<i>132</i>	<i>124</i>	<i>256</i>

Notes: This table presents the number of subjects in each round, per treatment, role, and gender. Abbreviations: L stands for Low; H for High; B for Benefits; E for Externality; M for Males; F for Females.

Table (A2) Summary statistics

Variable		Treatment										Total	
		LE LB				LE HB				HE LB			
		M	F	M	F	M	F	M	F	M	F	M	F
Offered Bribes	Obs.	60	100	60	100	90	70	90	70	300	340		
	Mean	66.67	47.00	51.67	72.00	45.56	35.71	55.56	38.57	54.00	50.29		
	SE	6.14	5.02	6.51	4.51	5.28	5.77	5.27	5.86	2.88	2.72		
	95% CILL	54.39	37.05	38.65	63.05	35.07	24.21	45.09	26.88	48.33	44.95		
	95% CIUL	78.95	56.95	64.68	80.95	56.04	47.22	66.02	50.26	59.67	55.64		
Accepted Bribes	Obs.	46	41	70	33	35	31	58	19	209	124		
	Mean	56.52	68.29	71.43	96.97	42.86	90.32	89.66	15.79	68.42	73.39		
	SE	7.39	7.36	5.44	3.03	8.49	5.40	4.03	8.59	3.22	3.98		
	95% CILL	41.64	53.42	60.58	90.80	25.61	79.30	81.58	-2.27	62.07	65.50		
	95% CIUL	71.41	83.16	82.28	103.14	60.10	101.35	97.73	33.85	74.78	81.27		
Punish Citizens (Freq.)	Obs.	41	46	38	65	37	29	42	35	158	175		
	Mean	46.34	39.13	71.05	63.08	29.73	51.72	45.24	80.00	48.10	58.29		
	SE	7.88	7.28	7.46	6.03	7.62	9.44	7.77	6.86	3.99	3.74		
	95% CILL	30.41	24.48	55.95	51.03	14.28	32.38	29.54	66.06	40.23	50.91		
	95% CIUL	62.28	53.78	86.16	75.13	45.18	71.07	60.94	93.94	55.98	65.66		
Punish Officials (Freq.)	Obs.	25	29	31	51	28	15	26	29	110	124		
	Mean	52.00	44.83	67.74	64.71	25.00	46.67	50.00	65.52	49.09	58.06		
	SE	10.20	9.40	8.53	6.76	8.33	13.33	10.00	8.98	4.79	4.45		
	95% CILL	30.95	25.58	50.31	51.13	7.90	18.07	29.40	47.12	39.60	49.26		
	95% CIUL	73.05	64.08	85.17	78.28	42.10	75.26	70.60	83.92	58.58	66.87		
Punish Citizens (Size)	Obs.	19	18	27	41	11	15	19	28	76	102		
	Mean	4.11	3.83	8.19	3.63	5.27	3.67	5.95	5.82	6.18	4.27		
	SE	0.46	0.51	0.57	0.41	0.74	0.42	0.61	0.54	0.35	0.26		
	95% CILL	3.13	2.76	7.02	2.81	3.62	2.76	4.66	4.71	5.49	3.76		
	95% CIUL	5.08	4.90	9.35	4.46	6.92	4.57	7.24	6.93	6.88	4.79		
Punish Officials (Size)	Obs.	13	13	21	33	7	7	13	19	54	72		
	Mean	4.69	5.23	8.29	4.61	6.86	4.00	7.00	5.37	6.93	4.86		
	SE	0.80	0.84	0.56	0.54	1.03	0.58	0.85	0.82	0.42	0.36		
	95% CILL	2.94	3.40	7.12	3.50	4.33	2.59	5.14	3.64	6.09	4.13		
	95% CIUL	6.44	7.06	9.45	5.71	9.39	5.41	8.86	7.09	7.76	5.59		

Notes: This table presents the summary statistics of the variables used in Figures 3, 4, 5, and in the analyses presented in Section 3—by gender and both by treatment and pooled across treatments. The summary statistics include the number of observations (Obs.), means, standard errors (SE), and the 95% confidence intervals (CI), where LL and UL are the lower and upper limits, respectively. Abbreviations: L stands for Low; H for High; B for Benefits; E for Externality; M for Males; F for Females.

Table (A3) Descriptive statistics of the sample and balance tests

Variable	Full Sample	Treatment				Role in Experiment		
		LE LB	LE HB	HE LB	HE HB	Citizen	Official	Other Member
Gender (0/1)								
Male Freq.	132	31	33	33	35	30	39	32
Column %	51.56	48.44	51.56	51.56	54.69	46.88	60.94	50.00
Female Freq.	124	33	31	31	29	34	25	32
Column %	48.44	51.56	48.44	48.44	45.31	53.13	39.06	50.00
		$\chi^2(3)=0.50; p=0.92$				$\chi^2(3)=3.13; p=0.37$		
Age (years) Mean	24.02	24.72	23.83	23.41	24.13	24.25	23.80	24.20
Std. Dev.	4.07	4.95	3.96	2.81	4.24	5.40	3.01	4.12
		K-W Stat.= 2.29; $p=0.51$				K-W Stat.= 0.33; $p=0.95$		
Education (0/1)								
High School Degree Freq.	125	28	27	39	31	32	35	27
Column %	48.83	43.75	42.19	60.94	48.44	50.00	54.69	42.19
University Degree Freq.	131	36	37	25	33	32	29	37
Column %	51.17	56.25	57.81	39.06	51.56	50.00	45.31	57.81
		$\chi^2(3)=5.55; p=0.14$				$\chi^2(3)=2.05; p=0.56$		
Field of study								
Engin. and Arch. Freq.	45	9	12	12	12	12	10	11
Column %	17.58	14.06	18.75	18.75	18.75	18.75	15.63	17.19
Arts and Humanities Freq.	55	12	15	11	17	11	14	11
Column %	21.48	18.75	23.44	17.19	26.56	17.19	21.88	17.19
Other Freq.	156	43	37	41	35	41	40	42
Column %	60.94	67.19	57.81	64.06	54.69	64.06	62.50	65.63
		$\chi^2(6)=3.280; p=0.77$				$\chi^2(6)=4.636; p=0.59$		
Risk aversion [1,10] Mean	5.95	5.78	6.05	5.95	6.02	5.98	6.03	5.95
Std. Dev.	1.95	1.97	1.64	2.13	2.07	1.89	1.83	2.19
		K-W Stat.=0.33; $p=0.95$				K-W Stat.=0.42; $p=0.94$		
F-Test of Joint Significance		F(5, 250)=0.67; $p=0.65$				F(5, 250)=0.32; $p=0.90$		
Total Freq.	256	64	64	64	64	64	64	64
Column %	100	100	100	100	100	100	100	100

Notes: This table shows the descriptive statistics of participants and their *ex ante* balance across treatments and roles. Kruskal-Wallis (K-W) statistic is distributed as $\chi^2(3)$. The F-test for joint significance indicates that the sample is balanced overall. Abbreviations: L stands for Low; H for High; B for Benefits; E for Externality; Engin. for Engineering; Arch. for Architecture.

A.4 Robustness checks

A.4.1 Regressions with all covariates

Table (A4) Gender differences in bribing behavior: Probit marginal effects (all covariates)

	Bribe Offer (0/1)		Bribe Acceptance (0/1)	
	(1)	(2)	(3)	(4)
High Ben.	-0.15*	-0.00	0.11	0.22***
	(0.09)	(0.08)	(0.07)	(0.08)
High Ext.	-0.21**	-0.08	-0.10	0.03
	(0.08)	(0.08)	(0.09)	(0.10)
High Ext. $\times$ High Ben.	0.24**	0.19*	0.29**	0.25
	(0.10)	(0.10)	(0.14)	(0.20)
Female (F)	-0.19**	-1.66***	0.09	4.30***
	(0.08)	(0.43)	(0.07)	(1.25)
F $\times$ High Ben.	0.40***	0.20**	0.28	0.07
	(0.11)	(0.09)	(0.49)	(0.56)
F $\times$ High Ext.	0.10	-0.03	0.33	0.17
	(0.11)	(0.11)	(0.25)	(0.28)
F $\times$ High Ext. $\times$ High Ben.	-0.46***	-0.37**	-1.32***	-2.23***
	(0.16)	(0.14)	(0.45)	(0.43)
Age		-0.08***		-0.01
		(0.02)		(0.01)
Risk Aversion		0.01		0.06
		(0.02)		(0.04)
Education		0.38***		0.17**
		(0.07)		(0.07)
Field of Study		-0.08***		-0.09**
		(0.03)		(0.04)
F $\times$ Age		0.07***		0.02
		(0.02)		(0.04)
F $\times$ Risk Aversion		-0.03*		-0.07
		(0.02)		(0.05)
F $\times$ Education		-0.48***		-0.27*
		(0.09)		(0.14)
F $\times$ Field of Study		0.20***		-1.33***
		(0.06)		(0.32)
Obs.	640	640	333	333

Notes: This table presents Probit marginal effects. The dependent variables are two dummies (0/1): *Bribe Offer*, equal to one if a citizen decides to offer a bribe (Col 1–2); and *Bribe Acceptance*, equal to one if an official decides to accept a bribe (Col 3–4). Bootstrapped SE (1,000 rep) two-way clustered at the group and round level (80 clusters) in parenthesis.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table (A5) Gender differences in punishment frequency (all covariates)

Panel A: Punishment Frequency (Probit marginal effects)				
	Punish Citizens (0/1)		Punish Officials (0/1)	
	(1)	(2)	(3)	(4)
High Ben.	0.24*	0.48***	0.15	0.50*
	(0.13)	(0.15)	(0.14)	(0.28)
High Ext.	-0.16	-0.05	-0.27	-0.28
	(0.13)	(0.14)	(0.17)	(0.39)
High Ext. $\times$ High Ben.	-0.09	-0.20	0.10	-0.07
	(0.18)	(0.17)	(0.22)	(0.46)
Female (F)	-0.07	0.49	-0.07	0.14
	(0.11)	(0.49)	(0.14)	(0.97)
F $\times$ High Ben.	-0.01	-0.34*	0.04	-0.43
	(0.18)	(0.20)	(0.18)	(0.31)
F $\times$ High Ext.	0.28*	0.10	0.29	0.19
	(0.17)	(0.18)	(0.21)	(0.42)
F $\times$ High Ext. $\times$ High Ben.	0.16	0.33	-0.11	0.21
	(0.26)	(0.26)	(0.26)	(0.50)
Age		0.03**		0.01
		(0.01)		(0.02)
Risk Aversion		-0.08***		-0.11
		(0.02)		(0.09)
Education		-0.17		-0.11
		(0.11)		(0.17)
Field of Study		0.15***		0.25***
		(0.05)		(0.08)
F $\times$ Age		-0.04***		-0.02
		(0.02)		(0.02)
F $\times$ Risk Aversion		0.08**		0.13
		(0.04)		(0.10)
F $\times$ Education		0.31**		0.20
		(0.13)		(0.19)
F $\times$ Field of Study		0.01		-0.11
		(0.08)		(0.09)
Obs.	333	333	234	234

Notes: This table presents Probit marginal effects for the dummy *Punishment Frequency*, equal to one if a monitor decides to punish. Col. 1-2 (3-4) show punishment towards citizens (officials), given that a bribe has been offered. Bootstrapped SE (1,000 rep) two-way clustered at the group and round level (80 clusters) in parenthesis.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table (A6) Gender differences in punishment size (all covariates)

Panel B: Punishment Size (OLS)				
	towards Citizens		towards Officials	
	(1)	(2)	(3)	(4)
High Ben.	4.08*** (0.67)	4.71*** (1.16)	3.59*** (0.88)	5.49*** (1.71)
High Ext.	1.17 (0.71)	1.45 (1.21)	2.16* (1.30)	2.96 (2.22)
High Ext. $\times$ High Ben.	-3.41*** (1.10)	-3.30* (1.73)	-3.45** (1.57)	-5.15** (2.52)
Female (F)	-0.27 (0.59)	6.76 (6.72)	0.54 (1.04)	1.48 (11.69)
F $\times$ High Ben.	-4.28*** (0.87)	-4.46*** (1.35)	-4.22*** (1.24)	-5.58*** (2.07)
F $\times$ High Ext.	-1.33 (1.01)	-1.75 (1.49)	-3.40** (1.63)	-3.36 (2.72)
F $\times$ High Ext. $\times$ High Ben.	5.76*** (1.54)	5.62*** (1.99)	5.44*** (1.87)	6.69** (2.85)
Age		0.07 (0.12)		0.05 (0.25)
Risk Aversion		0.02 (0.24)		-0.64** (0.25)
Education		0.27 (0.81)		-0.27 (1.27)
Field of Study		1.31** (0.57)		1.43** (0.63)
F $\times$ Age		-0.13 (0.24)		0.21 (0.42)
F $\times$ Risk Aversion		-0.09 (0.29)		0.28 (0.37)
F $\times$ Education		-1.15 (1.17)		-1.70 (1.65)
F $\times$ Field of Study		-1.04 (0.78)		-1.85* (1.01)
Constant	4.11*** (0.33)	-1.60 (3.85)	4.69*** (0.65)	1.85 (7.52)
Obs.	178	178	126	126

Notes: This table presents OLS results for *Punishment Size*, which ranges between one and ten, and it represents the amount a monitor spend on punishment, given the decision to punish. Col. 1-2 (3-4) show punishment towards citizens (officials), given that a bribe has been offered (and accepted). Bootstrapped SE (1,000 rep) two-way clustered at the group and round level (80 clusters) in parenthesis.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.4.2 Regressions without first and last rounds

Table (A7) Gender differences in bribing behavior: Probit marginal effects (without first and last rounds)

	Bribe Offer (0/1)		Bribe Acceptance (0/1)	
	(1)	(2)	(3)	(4)
High Ben.	-0.20** (0.09)	-0.05 (0.09)	0.10 (0.07)	0.18** (0.09)
High Ext.	-0.24*** (0.08)	-0.11 (0.09)	-0.12 (0.10)	0.00 (0.11)
High Ext. × High Ben.	0.30*** (0.11)	0.24** (0.11)	0.27 (0.17)	0.22 (0.17)
Female (F)	-0.21*** (0.08)	-1.70*** (0.46)	0.05 (0.08)	3.82 (2.99)
F × High Ben.	0.45*** (0.11)	0.25** (0.10)	0.30 (0.49)	0.13 (0.67)
F × High Ext.	0.12 (0.11)	0.01 (0.12)	0.39 (0.38)	0.26 (0.48)
F × High Ext. × High Ben.	-0.53*** (0.18)	-0.41** (0.17)	-1.35*** (0.50)	-2.20** (0.94)
Obs.	512	512	264	264
Controls	No	Yes	No	Yes
F × Controls	No	Yes	No	Yes

Notes: As in Table A4.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table (A8) Gender differences in punishment frequency (without first and last rounds)

Panel A: Punishment Frequency (Probit marginal effects)				
	Punish Citizens (0/1)		Punish Officials (0/1)	
	(1)	(2)	(3)	(4)
High Ben.	0.26*	0.47***	0.08	0.38
	(0.15)	(0.18)	(0.18)	(0.63)
High Ext.	-0.15	-0.09	-0.25	-0.32
	(0.14)	(0.18)	(0.23)	(0.27)
High Ext. $\times$ High Ben.	-0.16	-0.26	0.06	-0.06
	(0.20)	(0.21)	(0.28)	(0.37)
Female (F)	-0.08	0.44	-0.13	-0.08
	(0.12)	(0.54)	(0.18)	(1.02)
F $\times$ High Ben.	-0.04	-0.35	0.16	-0.29
	(0.19)	(0.22)	(0.22)	(0.66)
F $\times$ High Ext.	0.27	0.10	0.19	0.13
	(0.18)	(0.19)	(0.34)	(0.38)
F $\times$ High Ext. $\times$ High Ben.	0.24	0.44	-0.07	0.21
	(0.28)	(0.30)	(0.38)	(0.49)
Obs.	264	264	186	186
Controls	No	Yes	No	Yes
F $\times$ Controls	No	Yes	No	Yes

Notes: As in Table A5.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table (A9) Gender differences in punishment size (without first and last rounds)

Panel B: Punishment Size (OLS)				
	towards Citizens		towards Officials	
	(1)	(2)	(3)	(4)
High Ben.	4.34*** (0.75)	5.03*** (1.34)	4.21*** (1.01)	5.80*** (1.89)
High Ext.	1.17 (0.85)	1.62 (1.39)	2.26* (1.33)	2.85 (2.51)
High Ext. $\times$ High Ben.	-3.43*** (1.19)	-3.41* (2.07)	-2.74* (1.64)	-3.55 (2.73)
Female (F)	-0.32 (0.66)	5.73 (6.40)	0.58 (1.17)	1.36 (12.83)
F $\times$ High Ben.	-4.45*** (0.96)	-4.65*** (1.53)	-4.58*** (1.30)	-5.48** (2.18)
F $\times$ High Ext.	-1.43 (1.13)	-1.97 (1.61)	-3.44* (1.77)	-2.83 (3.13)
F $\times$ High Ext. $\times$ High Ben.	6.13*** (1.63)	6.19*** (2.32)	4.96** (1.94)	5.19 (3.16)
Constant	4.13*** (0.39)	-1.73 (4.33)	4.60*** (0.79)	-0.33 (8.64)
Obs.	143	143	98	98
Controls	No	Yes	No	Yes
F $\times$ Controls	No	Yes	No	Yes

Notes: As in Table A6.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

A.4.3 Double-tier regressions for punishment behavior

In this section, we analyze whether fe/male monitors respond to treatment variations differently, using a double-tier (a. k. a. double-hurdle or two-part) model, i.e., a generalization of the Tobit model for corner-solution models introduced by Cragg (1971). This allows us to *jointly* analyze two distinct processes: the first tier, which can be interpreted as a Probit model, determines a monitor's (binary) decision to participate in punishment; the second tier, which can be interpreted as a Tobit model, determines the size of punishment only for those monitors who ever choose to punish.

To estimate the double-tier model, we use the two-stage procedure developed by Burke (2009). Table A10 shows the regression results. Panel A reports results for the first tier regarding monitors' decision on whether to punish or not citizens (col. 1-2), and officials (col. 3-4), given that a bribe has been offered. Panel B reports the results for the second tier, which deals with monitors' actual magnitude of the punishment, conditional upon participation in punishment. Independent variables include treatment dummies; gender dummy *Female*; interaction between each treatment dummy and *Female*. Regression models in columns 2 and 4 include individual level controls and their interaction with *Female*. Standard errors two-way clustered at the group and round level in parenthesis.

Table (A10) Gender differences in punishment behavior: Regression results

Panel A: Punishment Frequency (First Tier)				
	Punish Citizens (0/1)		Punish Officials (0/1)	
	(1)	(2)	(3)	(4)
High Ben.	0.65*	1.55***	0.41	1.67***
	(0.34)	(0.46)	(0.37)	(0.59)
High Ext.	-0.44	-0.15	-0.72*	-0.95*
	(0.32)	(0.41)	(0.41)	(0.57)
High Ext. $\times$ High Ben.	-0.23	-0.63	0.26	-0.25
	(0.45)	(0.50)	(0.52)	(0.74)
Female (F)	-0.18	1.57	-0.18	0.46
	(0.28)	(1.37)	(0.35)	(1.74)
F $\times$ High Ben.	-0.04	-1.09*	0.10	-1.44**
	(0.46)	(0.58)	(0.46)	(0.67)
F $\times$ High Ext.	0.76*	0.32	0.77	0.62
	(0.42)	(0.50)	(0.51)	(0.66)
F $\times$ High Ext. $\times$ High Ben.	0.42	1.07	-0.29	0.70
	(0.66)	(0.77)	(0.60)	(0.92)
Constant	-0.09	-2.22**	0.05	-1.08
	(0.20)	(1.06)	(0.25)	(1.65)
Panel B: Punishment Size (Second Tier)				
	towards Citizens		towards Officials	
	(1)	(2)	(3)	(4)
High Ben.	4.64***	5.52***	4.24***	6.46***
	(0.71)	(1.31)	(1.08)	(1.90)
High Ext.	1.50*	2.15	2.70*	3.95*
	(0.89)	(1.44)	(1.48)	(2.33)
High Ext. $\times$ High Ben.	-3.86***	-4.00**	-4.08**	-6.25**
	(1.22)	(1.94)	(1.78)	(2.64)
Female (F)	-0.40	9.26	0.74	3.62
	(0.87)	(8.42)	(1.37)	(13.07)
F $\times$ High Ben.	-4.95***	-5.18***	-5.10***	-6.67***
	(1.14)	(1.61)	(1.66)	(2.31)
F $\times$ High Ext.	-1.76	-2.60	-4.51**	-4.59
	(1.36)	(1.84)	(2.07)	(2.97)
F $\times$ High Ext. $\times$ High Ben.	6.96***	6.93***	6.94***	8.40***
	(1.85)	(2.30)	(2.38)	(3.03)
Constant	3.53***	-3.96	3.99***	-0.78
	(0.48)	(4.58)	(0.92)	(7.60)
σ	2.82***	2.67***	3.27***	2.88***
	(0.21)	(0.19)	(0.23)	(0.20)
Obs.	333	333	234	234
Controls	No	Yes	No	Yes

Notes: Standard errors two-way clustered at the group and round level in parenthesis.

* $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.