**SUPPLEMENTARY MATERIAL**

**Fines as enforcers’ rewards or as transfers to society at large?
Evidence on deterrence and enforcement implications**

**FOR ONLINE PUBLICATION**

This supplementary material contains:

1. Supplementary tables for the analyses presented in the main text
2. Results from Linear Probability Models
3. Paper instructions
4. Screen instructions for data collection on beliefs
5. Comparison of data collected with direct response and strategy methods
6. **Supplementary tables for the analyses presented in the main text**

**Table A.1. Summary statistics for individual characteristics
of potential violators**

|  |
| --- |
| **Potential Offenders** |
| **Variable** | **Obs** | **Mean** | **Std. Dev.** | **Min** | **Max** |
| Justice sensitivity | 149 | 21.62416 | 8.09277 | 0 | 39 |
| SVO angle | 149 | .3184767 | .2421377 | -.1716803 | .7918497 |
| Morality  | 149 | 62.84564 | 12.10636 | 31 | 80 |
| Risk attitude | 149 | 6.087248 | 2.353643 | 1 | 10 |
| Age | 149 | 36.48322 | 15.77871 | 18 | 76 |
| Female | 149 | .6107383 | .4892273 | 0 | 1 |

**Table A.2. Summary statistics for individual characteristics of enforcers**

|  |
| --- |
| **Enforcers** |
| **Variable** | **Obs** | **Mean** | **Std. Dev.** | **Min** | **Max** |
| Justice sensitivity | 149 | 22.22148 | 8.081381 | 0 | 40 |
| SVO angle | 149 | .332778 | .2753256 | -.2837941 | 1.07145 |
| Morality  | 149 | 60.12752 | 12.81379 | 20 | 80 |
| Risk attitude | 149 | 6.52349 | 2.258868 | 1 | 10 |
| Age | 149 | 34.22148 | 15.52324 | 18 | 78 |
| Female | 149 | .5167785 | .5014038 | 0 | 1 |

**Table A.3. Descriptive statistics for enforcement and violation choices (direct method)**

|  |  |  |  |
| --- | --- | --- | --- |
|   |   | **Takers** | **Amount taken conditional on taking** |
| **Scenario** | **# Potential Takers** | **Actual Takers (in %)** | **Mean** | **St. Dev.** | **Min** | **Max** |
| **FLAT** | No enforcement | 59 | 83.05% | 344.35 | 183.47 | 40 | 500 |
| Enforcement | 56 | 73.21% | 384.78 | 157.35 | 1 | 500 |
| **REWARD** | No enforcement | 22 | 90.91% | 380 | 159.27 | 50 | 500 |
| Enforcement | 81 | 71.60% | 374.74 | 178.79 | 10 | 500 |
| **CORRUPTION** | No enforcement | 10 | 80% | 381.25 | 205.18 | 50 | 500 |
| Enforcement & no fine diversion | 18 | 88.89% | 368.75 | 175.95 | 50 | 500 |
| Enforcement & dine diversion | 52 | 63.46% | 334.30 | 202.47 | 2 | 500 |
|  |  |  |  |  |  |  |  |

**Table A.4. Coefficients and AMEs from random-effects probit regressions
for taking (treatments FLAT & REWARD): Direct-response and strategy-method data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | (1) | (2) | (3) | (4) |
|   | Coef.  | AME | Coef.  | AME |
|   |   |   |   |   |
| REWARD | -0.109 | -0.012 | 0.130 | -0.013 |
|  | (0.212) | (0.024) | (0.284) | (0.024) |
| Enforcement | -0.931\*\*\* | -0.102\*\*\* | -0.779\*\* | -0.109\*\*\* |
|  | (0.248) | (0.029) | (0.306) | (0.026) |
| REWARD x enforcement |  |  | -0.387 |  |
|  |  |  | (0.356) |  |
| SVO angle |  |  | -3.453\*\*\* | -0.396\*\*\* |
|   |  |  | (0.958) | (0.096) |
| Morality |  |  | -0.012 | -0.001 |
|   |  |  | (0.018) | (0.002) |
| Justice sensitivity |  |  | 0.019 | 0.002 |
|  |  |  | (0.027) | (0.003) |
| Risk attitude |  |  | 0.200\*\* | 0.023\*\* |
|   |  |  | (0.098) | (0.011) |
| Age |  |  | 0.043\*\*\* | 0.005\*\*\* |
|   |  |  | (0.013) | (0.001) |
| Female |  |  | -0.658 | -0.074 |
|  |  |  | (0.461) | (0.050) |
| Order |  |  | -0.272 | -0.031 |
|  |  |  | (0.221) | (0.024) |
| Direct method | 0.028 | 0.003 | 0.044 | 0.005 |
|  | (0.188) | (0.021) | (0.186) | (0.021) |
| Constant | 2.586\*\*\* |  | 1.675 |  |
|  | (0.503) |  | (1.498) |  |
| Observations | 654 | 654 | 654 | 654 |
| Number of id | 149 |  | 149 |  |
| *Notes*: Coefficients and AMEs from random-effects probit regressions. The dependent variable is equal to one (zero) if (no) taking occurred. REWARD is a dummy variable equal to one if the observation stems from treatment REWARD. Enforcement is a dummy variable equal to one if the enforcer created a positive detection probability. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level. Cluster robust standard errors are included in parentheses. |
|  |

**Table A.5. Coefficients and AMEs from probit regressions for taking (treatment CORRUPTION): Direct-response and strategy-method data**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | (1) | (2) | (3) | (4) |
|  | Coef.  | AME | Coef.  | AME |
|   |   |   |   |   |
| No enforcement | 0.012 | 0.003 | 0.071 | 0.016 |
|  | (0.209) | (0.059) | (0.237) | (0.055) |
| Enforcement & fine diversion | -0.346\* | -0.111\* | -0.352\* | -0.092\* |
|  | (0.185) | (0.058) | (0.212) | (0.053) |
| Justice sensitivity |  |  | -0.063\*\*\* | -0.016\*\*\* |
|  |  |  | (0.014) | (0.003) |
|  |  |  |  |  |
| SVO angle |  |  | -1.312\*\*\* | -0.331\*\*\* |
|   |  |  | (0.333) | (0.078) |
| Morality |  |  | 0.014\* | 0.003\* |
|   |  |  | (0.008) | (0.002) |
| Risk attitude |  |  | -0.052 | -0.013 |
|  |  |  | (0.041) | (0.010) |
| Age |  |  | 0.008 | 0.002 |
|  |  |  | (0.006) | (0.002) |
| Female |  |  | 0.194 | 0.049 |
|  |  |  | (0.196) | (0.050) |
| Order |  |  | 0.530\*\* | 0.124\*\* |
|  |  |  | (0.239) | (0.051) |
| Direct method | -0.037 | -0.012 | -0.073 | -0.018 |
|  | (0.178) | (0.056) | (0.200) | (0.051) |
| Constant | 0.834\*\*\* |  | 1.662\*\*\* |  |
|  | (0.149) |  | (0.637) |  |
| Observations | 320 | 320 | 320 | 320 |
|  |  |  |  |  |
| *Notes*: Coefficients and AMEs from probit regressions. The dependent variable is equal to one (zero) if (no) taking occurred. Enforcement & Fine Diversion is dummy variable equal to one if the enforcer created a positive detection probability and diverts the fine. No Enforcement is dummy variable equal to one if the enforcer did not create a positive detection probability. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level. Cluster robust standard errors are included in parentheses. |

**Table A.6. Coefficients and AMEs from random-effect probit regression for enforcement (treatments FLAT, REWARD and CORRUPTION): Direct-response and strategy-method data**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|   | (1) | (2) | (3) | (4) | (5) | (6) |
|  | Coef. | AME | Coef. | AME | Coef. | AME |
| REWARD | 0.261\*\*\* | 0.101\*\*\* | 0.260\*\*\* | 0.101\*\*\* | 0.728\*\*\* | 0.102\*\*\* |
|   | (0.053) | (0.020) | (0.054) | (0.021) | (0.216) | (0.021) |
| CORRUPTION | 0.639\*\*\* | 0.236\*\*\* | 0.641\*\*\* | 0.237\*\*\* | 1.021\*\*\* | 0.238\*\*\* |
|   | (0.047) | (0.017) | (0.052) | (0.019) | (0.217) | (0.019) |
| Morality |  |  | -0.004\*\* | -0.001\*\* | 0.000 | -0.001\*\* |
|  |  |  | (0.002) | (0.001) | (0.003) | (0.001) |
| REWARD x morality |  |  |  |  | -0.008\*\* |  |
|  |  |  |  |  | (0.004) |  |
| CORRUPTION x morality |  |  |  |  | -0.006\* |  |
|  |  |  |  |  | (0.004) |  |
| Justice sensitivity |  |  | -0.000 | -0.000 | -0.000 | -0.000 |
|  |  |  | (0.003) | (0.001) | (0.003) | (0.001) |
| SVO angle |  |  | 0.024 | 0.009 | 0.029 | 0.011 |
|  |  |  | (0.085) | (0.031) | (0.085) | (0.031) |
| Risk attitude |  |  | 0.014 | 0.005 | 0.014 | 0.005 |
|   |  |  | (0.010) | (0.004) | (0.010) | (0.004) |
| Age |  |  | 0.000 | 0.000 | 0.000 | 0.000 |
|   |  |  | (0.002) | (0.001) | (0.002) | (0.001) |
| Female |  |  | 0.004 | 0.002 | 0.004 | 0.001 |
|   |  |  | (0.044) | (0.016) | (0.044) | (0.016) |
| Order |  |  | -0.011 | -0.004 | -0.004 | -0.001 |
|  |  |  | (0.044) | (0.016) | (0.043) | (0.016) |
| Direct method | 0.424\*\*\* | 0.153\*\*\* | 0.426\*\*\* | 0.154\*\*\* | 0.428\*\*\* | 0.154\*\*\* |
|  | (0.080) | (0.027) | (0.080) | (0.027) | (0.080) | (0.027) |
| Constant | -0.152\*\*\* |  | -0.007 |  | -0.282 |  |
|  | (0.030) |  | (0.166) |  | (0.224) |  |
| Observations | 974 | 974 | 974 | 974 | 974 | 974 |
| Number of id | 149 |  | 149 |  | 149 |  |
| *Notes*: The dependent variable is binary and equal to one when the enforcer opted for investment. REWARD and CORRUPTION are dummy variables indicating treatments. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level. Cluster robust standard errors are included in parentheses. |

B. Results from Linear Probability Models

**Table B.1. Random-effects linear probability model regressions for taking (treatments FLAT & REWARD)**

|  |  |  |
| --- | --- | --- |
|   | (1) | (2) |
|  | Coef.  | Coef.  |
| REWARD | 0.013 | 0.134\*\* |
|  | (0.047) | (0.060) |
| Enforcement | -0.139\*\* | -0.072 |
|  | (0.054) | (0.065) |
| REWARD x enforcement |  | -0.184\*\* |
|  |  | (0.089) |
| SVO angle |  | -0.370\*\*\* |
|   |  | (0.125) |
| Morality |  | -0.002 |
|   |  | (0.003) |
| Justice sensitivity |  | 0.001 |
|  |  | (0.004) |
| Risk attitude |  | 0.019 |
|   |  | (0.014) |
| Age |  | 0.006\*\*\* |
|   |  | (0.002) |
| Female |  | -0.114\* |
|  |  | (0.069) |
| Order |  | -0.014 |
|  |  | (0.041) |
| Constant | 0.857\*\*\* | 0.791\*\*\* |
|  | (0.038) | (0.223) |
| Observations | 218 | 218 |
| Number of id | 149 | 149 |
| *Notes*: Results from random-effects linear probability model regressions. The dependent variable is equal to one (zero) if (no) taking occurred. REWARD is a dummy variable equal to one if the observation stems from treatment REWARD. Enforcement is a dummy variable equal to one if the enforcer created a positive detection probability. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level. Cluster robust standard errors are included in parentheses. |
|  |

**Table B.2. Quantile and OLS regressions for amount taken (treatments FLAT & REWARD)**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|   | (1) | (2) | (3) | (4) |
|  | Coef. - 25th | Coef. - 50th | Coef. - 75th | Coef. - OLS |
|   |   |   |   |   |
| REWARD | 135.293\* | 20.923 | -3.632 | 62.366 |
|  | (71.693) | (66.380) | (36.212) | (42.186) |
| Enforcement | 2.156 | 24.809 | -3.394 | -11.658 |
|  | (57.028) | (56.529) | (25.991) | (38.258) |
| REWARD x enforcement | -156.876\* | -57.899 | 4.818 | -68.907 |
|  | (91.616) | (89.025) | (43.305) | (56.029) |
| SVO angle | -382.035\*\*\* | -299.065\*\*\* | -36.607 | -276.280\*\*\* |
|   | (110.977) | (98.057) | (73.363) | (58.799) |
| Morality | -0.049 | 0.225 | -0.339 | -0.395 |
|   | (2.036) | (2.115) | (0.844) | (1.287) |
| Justice sensitivity | 3.855 | 6.394\*\* | 0.855 | 4.195\*\* |
|  | (2.955) | (2.597) | (1.680) | (1.647) |
| Risk attitude | 18.963\*\* | 13.618 | 0.702 | 12.361\*\* |
|   | (9.049) | (9.820) | (5.156) | (5.940) |
| Age | -0.293 | -3.348\* | -2.084\* | -2.082\*\* |
|   | (1.541) | (1.824) | (1.241) | (0.826) |
| Female | -161.508\*\*\* | -109.618\* | -6.947 | -96.678\*\*\* |
|  | (54.462) | (61.733) | (24.454) | (29.567) |
| Order | 46.074 | 32.474 | 7.905 | 48.419\* |
|  | (43.114) | (42.083) | (21.466) | (27.261) |
| Constant | 136.128 | 319.007\* | 557.500\*\*\* | 336.661\*\*\* |
|  | (167.023) | (179.875) | (67.555) | (97.867) |
|  |  |  |  |  |
| Observations | 218 | 218 | 218 | 218 |
| *Notes*: Columns (1), (2) and (3) provide coefficients after quantile regressions, respectively at the 25th, 50th and 75th quantiles. Column (4) provides coefficients after an OLS regression (the amount taken is the dependent variable). REWARD is a dummy variable equal to one if the observation stems from treatment REWARD. Enforcement is a dummy variable equal to one if the enforcer created a positive detection probability. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level. The estimated variance-covariance matrix of the estimators (VCE) is obtained via bootstrapping (1000 repetitions) for the four regressions of this table. |
|  |

For the 218 observations under consideration, the 25th quantile is at 37 points of amount taken, the 50th quantile at 350 points, and the 75th at 500 points. The results in Table S.2 show that enforcement’s deterrent effect is greater in REWARD than in FLAT for the 25th quantile, while this effect is not significant in the other quantiles (interaction term REWARD x Enforcement). The effect is insignificant in the OLS regression. However, we have to be cautious in interpreting the results from these regressions, as the empirical models disregard the panel structure of our data.

**Table B.3. Linear probability model regressions for taking (treatment CORRUPTION)**

|  |  |  |
| --- | --- | --- |
|   | (1) | (2) |
|  | Coef.  | Coef.  |
| No enforcement | -0.089 | -0.085 |
|  | (0.149) | (0.158) |
| Enforcement & fine diversion | -0.254\*\* | -0.248\* |
|  | (0.102) | (0.126) |
| Justice sensitivity |  | -0.015\*\* |
|  |  | (0.006) |
| SVO angle |  | -0.338\* |
|  |  | (0.182) |
| Morality |  | 0.005 |
|  |  | (0.004) |
| Risk attitude |  | -0.025 |
|  |  | (0.020) |
| Age |  | 0.002 |
|  |  | (0.004) |
| Female |  | 0.093 |
|  |  | (0.115) |
| Order |  | 0.134 |
|  |  | (0.111) |
| Constant | 0.889\*\*\* | 1.020\*\*\* |
|  | (0.076) | (0.313) |
| Observations | 80 | 80 |
|  |  |  |
| *Notes*: Coefficients after linear probability model regressions. The dependent variable is equal to one (zero) if (no) taking occurred. Enforcement & Fine Diversion is dummy variable equal to one if the enforcer created a positive detection probability and diverts the fine. No Enforcement is dummy variable equal to one if the enforcer did not create a positive detection probability. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level. Cluster robust standard errors are included in parentheses. |
|  |  |  |

**Table B.4. Random-effects linear probability model regression for enforcement (treatments FLAT, REWARD and CORRUPTION)**

|  |  |  |  |
| --- | --- | --- | --- |
|   | (1) | (2) | (3) |
|  | Coef.  | Coef.  | Coef.  |
| REWARD | 0.297\*\*\* | 0.295\*\*\* | 0.806\*\*\* |
|   | (0.061) | (0.064) | (0.254) |
| CORRUPTION | 0.385\*\*\* | 0.383\*\*\* | 0.828\*\*\* |
|   | (0.058) | (0.065) | (0.270) |
| Morality |  | -0.005\*\* | 0.000 |
|  |  | (0.002) | (0.004) |
| REWARD x morality |  |  | -0.008\*\* |
|  |  |  | (0.004) |
| CORRUPTION x morality |  |  | -0.007 |
|  |  |  | (0.005) |
| Justice sensitivity |  | -0.000 | 0.000 |
|  |  | (0.004) | (0.004) |
| SVO angle |  | 0.024 | 0.030 |
|  |  | (0.103) | (0.103) |
| Risk attitude |  | 0.016 | 0.017 |
|   |  | (0.013) | (0.013) |
| Age |  | 0.000 | 0.000 |
|   |  | (0.002) | (0.002) |
| Female |  | 0.005 | 0.004 |
|   |  | (0.054) | (0.054) |
| Order |  | -0.015 | -0.007 |
|  |  | (0.052) | (0.052) |
| Constant | 0.488\*\*\* | 0.657\*\*\* | 0.346 |
|  | (0.047) | (0.199) | (0.275) |
| Observations | 298 | 298 | 298 |
| Number of id | 149 | 149 | 149 |
| *Notes*: The dependent variable is binary and equal to one when the enforcer opted for investment. REWARD and CORRUPTION are dummy variables indicating treatments. \*, \*\*, \*\*\* indicate significance at the 10%, 5%, and 1% level. Cluster robust standard errors are included in parentheses. |

**C. Paper instructions**

**Paper instructions - Part 1**

Enter the **number of zeros** inside the box below. After entering the number, click on the OK button.



If you entered the correct result, a new table will be generated. If your response was incorrect:

* You have two additional attempts to enter the correct number in the box below the table.
* After three attempts, a new table will be generated.

You must obtain **two correct results** to complete this task.

**You have 10 minutes** before the end of this first part of the experiment. The remaining time is displayed in the upper right corner of the screen.

**Counting tips:**

- You can count the pairs of zeros

- You may use the mouse to count the zeros as you go along.

**Paper instructions - Part 2 (Treatment CORRUPTION)**

**Different types of players:**

In this part of the game, you will play with two other players. Each player is randomly assigned a role by the computer, among three possible roles. We will distinguish:

* Player A;
* Player B;
* Player C.

If the computer assigns you the role "player C", for example, you keep this role throughout the experiment.

You each have **500 points** in your account. In this round, **100 points are equal to 1 euro.**

* **Player A** chooses whether or not to withdraw points from Player B's account, to transfer them to his own account and to keep them for himself. He can withdraw any amount of points from 0 to 500 from Player B's account.
	+ One point will be credited to Player A's account for every 2 points withdrawn from Player B's account.
	+ *Example: If player A decides to take 30 points from player B's account, he will receive 15 points on his own account.*
* **Player B** has no particular actions.
* **Player C** chooses **whether or not to invest 50 points**, which will be deducted from his initial endowment, to monitor Player A's behavior.
	+ If player C decides not to invest, there is no way to detect the behavior of player A.
	+ If player C decides to invest, player A's behavior is detected with a 50% probability.
		- **If Player A has deducted points from Player B's account and is detected, 250 points are will be withdrawn from Player A's** initial endowment.
			* These 250 points are intended to be donated to the ***Restos du Coeur.***
			* Player C can decide to keep the amount. In this case, nothing will be is given to the Restos du Coeur and the 250 points are given to player C.

Thus, three options are available to player C: (i) invest 50 points and keep the donation for him in case of detection; (ii) invest 50 points and NOT KEEP the donation for him in case of detection; (iii) do not invest.

**Timing of the game:**

1. Player C chooses whether to (i) invest 50 points and keep the donation for himself in case of detection; (ii) invest 50 points and NOT KEEP the donation for himself in case of detection; (iii) do not invest.

2. Player A is informed of Player C's decision.

3. Player A decides whether or not to take points from Player B's account.

4. If player A has decided to take points, he is detected with a 50% probability.

5. The game ends.

**Calculating the players’ earnings**

If this section is used for your gains, the calculation of earnings will be as follows.

**Gain of player A**

|  |  |  |  |
| --- | --- | --- | --- |
| **If player C chose** | **If player A chose** | **If fate chose** | **Gain of Player A** |
| Not to invest | No point deduction |   | 500 |
| Deduction of X points |   | 500+X/2 |
| To invest\* | No point deduction  |   | 500 |
| Deduction of X points | No detection (proba 50%) | 500+X/2 |
| Deduction of X points | Detection (proba 50%) | 250+X/2 |

 \*Invest covers two situations: (i) invest 50 points and keep the donation for him in case of detection; (ii) invest 50 points and NOT KEEP the donation for him in case of detection.

**Gain of player B**

|  |  |  |  |
| --- | --- | --- | --- |
| **If player C chose** | **If player A chose** | **If fate chose** | **Gain of Player B** |
| Not to invest | No point deduction |   | 500 |
| Deduction of X points |   | 500-X |
| Invest\* | No point deduction |   | 500 |
| Deduction of X points | No detection (proba 50%)ordetection (proba 50%) | 500-X |

 \*Invest covers two situations: (i) invest 50 points and keep the donation for himself in case of detection; (ii) invest 50 points and NOT KEEP the donation for himself in case of detection.

**Paper Instructions – Part 6**

This last part is divided into 5 sections. Among them,

* 4 are questionnaires;
* 1 questionnaire which allows you to collect gains. Your choices in this section are taken into account in calculating your final gain.

The explanations below are dedicated to the section allowing you to collect gains.

**« Second task »**

In this exercise, you will make a series of decisions to allocate money to yourself and another participant.

 The other participant is someone you don't know, who doesn't know you, and you will remain anonymous. Each choice is completely confidential.

For each of the following questions, indicate your preferred cash distribution by marking a position on the middle line. You can only make one marking per question.

One decision will be randomly drawn. It will be used to calculate your gain, as well as the other participant’s gain. In the example below, one person has chosen to distribute the money so that he or she receives 50 points, while the other anonymous person receives 40 points.



There are no correct or false responses in this task; it is only a matter of personal preferences.

After you have made all your decisions, write the resulting cash distribution in the spaces on the right. As you can see, your decisions will influence the amount of money you will receive, as well as the amount of money the other person will receive.

**D. Screen instructions for data collection on beliefs**

**Screen instructions: beliefs of the potential offender – treatment FLAT**

In this experiment, player C chooses whether or not to invest 50 points, which will be deducted from his initial allocation, in order to be able to monitor player A's behavior.

If player C decides not to invest, there is no possible detection of player A's behavior.

 If player C decides to invest, the behavior of player A is detected with a probability of 50%.

If the transfer made by player A is detected, 250 points are taken from player A's initial allocation. These 250 points (2.5 euros) are intended to be given to the Restos du Coeur.

If no investment - and therefore no detection - is made by Player C, then the Restos du Coeur does not receive a donation.

This experiment has already been tested on a group of participants composed of 6 players A, 6 players B and 6 players C. In your opinion, in this previous session, out of 6 Players C, how many invested 50 points?

It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will win 1 euro.

**Screen instructions: beliefs of the potential offender – treatment CORRUPTION**

In this experiment, player C chooses whether or not to invest 50 points, which will be deducted from his initial allocation, in order to be able to monitor player A's behavior.

If player C decides not to invest, there is no possible detection of player A's behavior.

If player C decides to invest, the behavior of player A is detected with a probability of 50%.

If the transfer made by player A is detected, 250 points are taken from player A's initial allocation. These 250 points (2.5 euros) are intended to be given to the Restos du Coeur.

Player C may decide to keep this amount. In this case, nothing is paid to the Restos du Coeur and the 250 points are added to player C's initial prize money.

If no investment - and therefore no detection - is made by player C, then the Restos du Coeur receives no donation.

Thus, Player C has three options (i) invest 50 points and keep the gift for himself in case of detection; (ii) invest 50 points and DO NOT keep the gift for himself in case of detection; (iii) do not invest.

This experiment has already been tested on a group of participants composed of 6 A players, 6 B players and 6 C players. In your opinion, in this previous session, out of 6 C Players, how many chose

* To invest 50 points and keep the donation for himself?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your earnings. If this is the case and your estimate is correct, you will earn 1 euro. >
* To invest 50 points and NOT get the donation back for himself?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will earn 1 Euro. >
* Not to invest?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your earnings. If this is the case and your estimate is correct, you will win 1 euro. >

**Screen instructions: beliefs of the enforcer – treatment FLAT**

In this experiment, player C chooses whether or not to invest 50 points, which will be deducted from his initial allocation, in order to be able to monitor player A's behavior.

If player C decides not to invest, there is no possible detection of player A's behavior.

If player C decides to invest, the behavior of player A is detected with a probability of 50%.

If the transfer made by player A is detected, 250 points are taken from player A's initial allocation. These 250 points (2.5 euros) are intended to be given to the Restos du Coeur.

If no investment - and therefore no detection - is made by Player C, then the Restos du Coeur does not receive a donation.

Players A are informed of Player C's investment choice. Based on this information, Player A can choose to transfer points from Player B's account to their own account. >

This experiment has already been tested on a group of participants composed of 6 players A, 6 players B and 6 players C.

In your opinion, in this previous session, out of 6 Players A who know that their player C has chosen "INVEST", how many players decide to take points?

It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will win 1 euro.

**Screen instructions: beliefs of the enforcer – treatment CORRUPTION**

In this experiment, player C chooses whether or not to invest 50 points, which will be deducted from his initial allocation, in order to be able to monitor player A's behavior.

If player C decides not to invest, there is no possible detection of player A's behavior.

If player C decides to invest, the behavior of player A is detected with a probability of 50%.

If the transfer made by player A is detected, 250 points are taken from player A's initial allocation. These 250 points (2.5 euros) are intended to be given to the Restos du Coeur.

Player C may decide to keep this amount. In this case, nothing is paid to the Restos du Coeur and the 250 points are added to player C's initial prize money.

If no investment - and therefore no detection - is made by player C, then the Restos du Coeur receives no donation.

Thus, Player C has three options (i) invest 50 points and keep the gift for himself in case of detection; (ii) invest 50 points and DO NOT keep the gift for himself in case of detection; (iii) do not invest.

Player A is informed of Player C's investment choice. Based on this information, Player A can choose to transfer points from Player B's account to their own account.

This experiment has already been tested on a group of participants composed of 6 players A, 6 players B and 6 players C.

* In your opinion, in this previous session, on 6 Players A who know that their player C has chosen "to invest and keep the gift for himself in case of detection"… How many players decide to take points?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will win 1 euro. >
* For the A players who decide to take points in this situation, how many points do they take on average?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will win 1 euro.
* In your opinion, in this previous session, out of 6 A players who know that their C player has chosen "invest 50 and NOT keep the deal for himself if detected"… How many players decide to take points?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will win 1 euro.
* For the A players who decide to take points in this situation, how many points do they take on average?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will win 1 euro.
* In your opinion, in this last session, of the six "A" players who know their "C" player chose not to invest... How many players decide to take points?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will win 1 euro.
* For the A players who decide to take points in this situation, how many points do they take on average?
	+ It is possible that this question will be drawn at the end of the experiment to evaluate your winnings. If this is the case and your estimate is correct, you will win 1 euro.

**E. Comparison of data collected with direct response and strategy methods**

In this section, we compare results issued from direct response and strategy methods for our three treatments. We test whether the participants who act as the potential offenders behave differently in hot and cold states. We adopt two levels of analysis: (1) the propensity to steal in hot vs. cold state; (2) the amount stolen given theft occurred in hot vs. cold state. To compare the propensity to steal, we rely on McNemar’s test, which is suitable for determining if there is a statistically significant difference in the proportions between paired data. The analysis of the mean stolen amount is undertaken using the Wilcoxon signed-rank test.

We show that there is no significant difference between the two elicitation methods regarding the potential offenders’ behavior, except when comparing the shares of takers in the case of “No enforcement”. Indeed, in our sample, subjects who have chosen not to take in the “No enforcement” case using the direct response format also chose not to take in the “No enforcement” case using the strategy method format (10 participants). Meanwhile, some of the subjects who chose to take in the case of “Enforcement” using the direct response format (49 individuals) chose not to take when using the strategy method format (4 out of 49 individuals). Nevertheless, the share of takers remains relatively close across the two formats in the “No enforcement” case, with 83.05% (82.61%) of takers in the direct response (strategy method) format.

**Share of takers and mean amounts taken in treatment FLAT**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scenario** | **Direct response** | **Strategy method** | **Test for Shares Direct vs. Strategy** | **Test for Mean Direct vs. Strategy** |
| Enforcement | Share of takers | 73.21%  | 73.91% | McNemar's chi2(1) = 0.00 Prob > chi2 = 1.0000 | z = 0.918 Prob > |z| = 0.3586 |
| Mean taking if taking>0 (Standard deviation) | 396.56 (151.60) | 377.69 (166.27) |
| Number of potential offenders | 56 | 115 |
| No enforcement | Share of takers | 83.05% | 82.61% |  McNemar's chi2(1) = 4.00 Prob > chi2 = 0.0455 | z = 0.290 Prob > |z| = 0.7715 |
| Mean taking if taking>0 (Standard deviation) | 348.29 (185.08) | 393.93 (155.98) |
| Number of potential offenders | 59 | 115 |

**Share of takers and mean amounts taken in treatment REWARD**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Scenario** | **Direct response** | **Strategy method** | **Test for Shares Direct vs. Strategy** | **Test for Mean Direct vs. Strategy** |
| Enforcement | Share of takers | 71.60% | 72.82% | McNemar's chi2(1) = 0.14 Prob > chi2 = 0.7055 | z = 2.160 Prob > |z| = 0.0307 |
| Mean taking if taking>0 (Standard deviation) | 375.65 (178.28) | 383.90 (171.67) |
| Number of potential offenders | 81 | 103 |
| No enforcement | Share of takers | 90.91% | 85.44% | McNemar's chi2(1) = 0.00 Prob > chi2 = 1.0000 | z = 0.328 Prob > |z| = 0.7426 |
| Mean taking if taking>0 (Standard deviation) | 386.84 (160.59) | 392.2 (161.47) |
| Number of potential offenders | 22 | 103 |

In treatment REWARD, we find no significant difference regarding either the share of takers or the taken amount when comparing data from the direct response and the strategy method format except for the mean amounts taken in the case of “Enforcement”.

**Share of takers and mean amounts taken in treatment CORRUPTION**

|  |  |  |  |
| --- | --- | --- | --- |
|  | **No enforcement** | **Enforcement & No fine diversion** | **Enforcement & Fine diversion** |
|  | **Direct** | **Strat.** | **Direct** | **Strat.** | **Direct** | **Strat.** |
| Share of Takers | 80% | 80% | 88.89% | 77.50% | 63.46% | 71.25% |
| Mean taking if taking>0 (Standard deviation) | 381.25 (205.18) | 350.54 (177) | 368.75 (175.95) | 331.74 (183.28) | 336.52 (202.43) | 334.44 (191.85) |
| Number of Potential Offenders | 10 | 80 | 18 | 80 | 52 | 80 |
| Test for Shares Direct vs. Strategy | McNemar's chi2(1) = 1.00 Prob > chi2 = 0.3173 | McNemar's chi2(1) = . Prob > chi2 = . | McNemar's chi2(1) = 0.20 Prob > chi2 = 0.6547 |
| Test for Mean Direct vs. Strategy | z = -1.000 Prob > |z| = 0.3173 | z = -0.991 Prob > |z| = 0.3216 |  z = 0.404 Prob > |z| = 0.6861 |

Regarding the comparison of shares of takers, there is no significant difference when comparing data from the direct response and the strategy method format. In the case of “Enforcement & no fine diversion”, the observed potential offenders keep the same behavior between the two methods. We also find no significant difference in the mean stolen amounts between the two methods.