# **Online Appendices**

## ***Appendix A: Recruitment strategy***

Random sampling was employed at every stage of recruitment. Working with Practical Sampling International (PSI), an experienced research firm based in Lagos, 200 primary sampling units (PSU) were randomly selected on the basis of the national census frame. Our sample is therefore representative of Lagos State in terms of income, ethnicity and religion. Survey starting points within each local government authority (LGA) were then randomly selected; households were randomly selected from the starting points; and, within households, respondents were randomly selected. Enumerators alternated between asking for a man or woman to interview to ensure gender balance. All interviews were carried out face to face in the participant’s favoured language, with a choice of English, Yoruba and Pidgin.

We are confident that Stable Unit Treatment Value Assumption (SUTVA) was not violated. This is because respondents were selected randomly, across the city of Lagos, and randomly assigned to treatment groups, while the field work was conducted in just two weeks. For the same reasons, we are also confident that there were no treatment ‘spill over’ effects—i.e. that respondents were not influenced by treatment conditions other participants in the study were exposed to.

***Appendix B: Demographic characteristics of the sample***

Table B 1. Demographic characteristics of the sample

|  |  |
| --- | --- |
| Variable | % of sample |
| Gender |  |
| Male | 50 |
| Female | 50 |
| Age |  |
| 18-24 | 20 |
| 25-34 | 37 |
| 35-54 | 37 |
| 55-64 | 4 |
| 65+ | 2 |
| Education |  |
| Not completed primary | 1 |
| Completed primary only | 7 |
| Completed secondary school | 46 |
| Some or completed university | 46 |
| Income |  |
| Less than 20,000 NGN | 11 |
| 20,001-40,000 NGN | 21 |
| 40,001-60,000 NGN | 20 |
| 60,001-80,000 NGN | 15 |
| 80,001-100,000 NGN | 11 |
| 100,001-200,000 NGN | 7 |
| 200,001-300,000 NGN | 1 |
| More than 300,001 NGN | <1 |
| Refused to answer | 14 |
| Ethnicity |  |
| Yoruba | 68 |
| Igbo | 16 |
| Edo | 3 |
| Other | 13 |
| Religion |  |
| Traditional Christian (Catholic/Anglican) | 27 |
| Pentecostal | 41 |
| Islam | 30 |
| Other/None | 2 |

To the extent to which they were available, the demographic statistics of the sample can be compared with the demographic breakdown of Lagos State as reported in previous academic studies. The breakdown of groups by ethnicity is for all groups within 2% of Cheeseman et al. (2018), as is the percentage of all religious groups. The age sample is comparable with official figures, which find that 2.7% of the population is aged over 65 and that 60% of the population is aged under 30. Our income sample is also comparable to economic studies, which find that 90% of the population earn less than 100,000 NGN.

***Appendix C: Treatment text***

The ***corruption is* *widespread*** message read: ‘Corruption in Nigeria is considered to be widespread throughout society, the private sector and across all public services and agencies. In a recent survey, over 60% of respondents in Nigeria agreed that most government officials were corrupt. Over a third said that they had to pay a bribe for a public service they were entitled to receive for free. Many elites have been involved in corruption. For example, it is believed that the former chairman of the Pension Reform Task Team misappropriated billions of naira worth of pension funds. And, parliament has discussed a report said to reveal that billions have been corruptly defrauded from the fuel subsidy fund. Former political leaders have also claimed more than 10% of all Nigeria's oil production is being lost due to corruption. We all need to fight corruption because it infects most if not all sectors of Nigeria’s society, private sector and government.’

The ***religious***treatment read: ‘Religious leaders have taken a strong stand against corruption. For example, a Catholic Archbishop has declared that “The war against corruption is not just a battle for virtue and righteousness in our land but a fight for the soul and substance of our nation”. Similarly, an Imam recently called on Islamic leaders in Lagos to fight corruption and said that he will “encourage and support the Imams, preachers and their followers to speak against those who use their positions and opportunities to cheat and loot”. These leaders believe that corruption is against the word of God; it is against the principles set out in the Bible and the Quran. Many different religious groups have banded together to fight corruption through the Religious Leaders Anti-corruption (RLAC) working group. As a religious country, and in line with our strong cultural traditions, we all have a moral obligation to fight corruption whenever we come across it, no matter if it involves our friends or local communities.’

The ***government success*** treatment read: ‘Over the last twenty years the Lagos State Government has led the way in Nigeria when it comes to reducing corruption and delivering better government. Under Governor Babatunde Fashola, the state increased its revenue so much that Lagos is now wealthier than many other African countries. At the same time, the level of corruption was significantly reduced. For example, even some of those close to the government were forced to pay their taxes. Because less money was wasted through corruption, the Lagos State Government was able to invest more in cleaning roads, strengthening infrastructure, improving education and opening more health clinics. In 2018, the State Government made history by setting up special courts solely for the prosecution of corruption cases. The impact and legacy of Governor Fashola during his time in Lagos demonstrates that corruption is not inevitable and that electing the right leaders can made a positive difference.’

The ***local fight***treatment read: ‘We live in a land that has a diverse array of cultures, religious and ethnic groups. We need to do what is right by the laws and rules of our own communities, before issues can be addressed for the nation as a whole. Corruption is as much of a local issue as it is a national issue because it impacts our own local communities and families first and foremost. We see corruption’s impact locally when it disrupts our community’s access to, or the quality of, locally delivered services, like health care and education. Corruption also impacts the resources our local areas receive for projects which could further develop our local area. Our community’s opportunities to develop and grow are therefore hindered by corruption. We must come together with our local communities to fight corruption because our own communities are the first to suffer from it. Our fight against corruption must focus on small-scale communal efforts against the problem, first. To represent our many communities, our nation needs many different responses to the problem of corruption.’

Finally, the ***taxes***treatment read: ‘As a resident in Lagos, you are required to pay lot of taxes and fees to the State and Federal Governments. Indeed, many people pay more than they think. Those with a formal job pay income tax and when you buy goods in shops you pay 5% sales tax. Many people also pay a Land Use Charge, which has recently been increased. Market traders pay fees, which increases the cost of food for those who buy from them. Anyone who goes to hotels, bars, restaurants and event centres will also be paying tax on food and drink. Taxes and fees make life more expensive in other ways too, for example because they increase the cost of rent. Corruption means that officials and political leaders take this money for themselves, stealing the taxes and fees that you have paid. As a result, your money does not go towards development goals like maintaining roads and providing education and healthcare for all. If there was less corruption, people would get better services while paying less money to the government.’

***Appendix D: Difference of means tests of demographic characteristics***

Table D.1: Difference in means tests of representation of demographic characteristics across treatment groups

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Female | | Age | | Education | | Poverty | |
| Treatment group | Contrast | P-value | Contrast | P-value | Contrast | P-value | Contrast | P-value |
| Religious vs Widespread | -0.007 | 0.837 | 0.741 | 0.331 | -0.038 | 0.395 | -0.041 | 0.482 |
| Gov't success vs Widespread | 0.001 | 0.972 | -0.413 | 0.588 | -0.054 | 0.232 | -0.019 | 0.747 |
| Local vs Widespread | -0.006 | 0.865 | 0.075 | 0.921 | -0.010 | 0.830 | 0.067 | 0.249 |
| Tax vs Widespread | -0.005 | 0.890 | -0.448 | 0.558 | -0.029 | 0.528 | 0.055 | 0.354 |
| Control vs Widespread | -0.005 | 0.892 | 0.211 | 0.781 | -0.057 | 0.204 | 0.061 | 0.294 |
| Gov't success vs Religious | 0.008 | 0.811 | -1.154 | 0.131 | -0.016 | 0.731 | 0.022 | 0.705 |
| Local vs Religious | 0.001 | 0.971 | -0.666 | 0.381 | 0.029 | 0.523 | 0.109 | 0.063 |
| Tax vs Religious | 0.002 | 0.947 | -1.189 | 0.121 | 0.010 | 0.829 | 0.096 | 0.103 |
| Control vs Religious | 0.002 | 0.944 | -0.530 | 0.486 | -0.019 | 0.677 | 0.103 | 0.079 |
| Local vs Gov't success | -0.007 | 0.839 | 0.487 | 0.522 | 0.044 | 0.325 | 0.086 | 0.140 |
| Tax vs Gov't success | -0.006 | 0.864 | -0.035 | 0.963 | 0.025 | 0.576 | 0.074 | 0.213 |
| Control vs Gov't success | -0.006 | 0.865 | 0.624 | 0.413 | -0.003 | 0.944 | 0.080 | 0.170 |
| Tax vs Local | 0.001 | 0.976 | -0.523 | 0.493 | -0.019 | 0.675 | -0.013 | 0.825 |
| Control vs Local | 0.001 | 0.973 | 0.136 | 0.857 | -0.048 | 0.290 | -0.006 | 0.918 |
| Control vs Tax | 0.000 | 0.998 | 0.659 | 0.388 | -0.029 | 0.528 | 0.007 | 0.906 |

Notes: Gender is coded as 1 for female, 0 for male. Age in years. Education is coded as 1 not completed primary, 2 primary completed, 3 secondary completed, 4 at least some university. Poverty is the average response to questions on whether the respondent lacked food, water, medicine, fuel and cash; response options to these questions ranged from 0 to 4, with 0 representing never, 1 just once or twice, 2 several times, 3 many times, and 4 always.

## 

***Appendix E: Questions on perceptions of corruption levels***

*Table E.1: Question wording and coding for perception questions*

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Label | Question | Response options | Mean | Std. dev. |
| Common | ‘Taking into account your own experience or what you have heard, corruption among public officials is…’ | 1) Very uncommon, 2) Uncommon, 3) Neither common nor uncommon, 4) Common, 5) Very common | 4.44 | 0.95 |
| Most bribe | ‘How strongly do you agree or disagree with the following statement: *Most people I know have paid a bribe.* Do you…’ | 1) Strongly disagree, 2) Disagree, 3) Neither agree nor disagree, 4) Agree, 5) Strongly agree | 3.97 | 1.04 |
| Widespread | ‘How widespread would you say that corruption is in Nigeria?’ | 1) Not at all widespread, 2) Quite widespread, 3)Very widespread, 4) Extremely widespread | 3.53 | 0.67 |

Note: Mean and sample deviation were calculated from the full sample of respondents that played the bribery game (N:1,200).

## ***Appendix F: Perceptions of corruption are not influenced by treatments***

Table F. 1. Regressions analyses demonstrating that perceptions of corruption are not influenced by treatment assignment

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Model 1: Continuous DV | | | | | | Model 2: Dichotomous DV | | | | |
|  | *b* | | S.E. | | P.V. | | *b* | | S.E. | | P.V. |
| *Treatment groups* | |  | |  | |  | |  | |
| Widespread | 0.03 | | 0.102 | | 0.777 | | 0.16 | | 0.203 | | 0.444 |
| Religious | 0.11 | | 0.102 | | 0.274 | | 0.18 | | 0.202 | | 0.378 |
| Gov’t success | 0.05 | | 0.102 | | 0.641 | | 0.27 | | 0.203 | | 0.191 |
| Local fight | -0.03 | | 0.102 | | 0.738 | | 0.14 | | 0.202 | | 0.494 |
| Taxes | 0.03 | | 0.102 | | 0.791 | | 0.23 | | 0.202 | | 0.256 |
| *Control* |  | |  | |  | |  | |  | |  |
| Poverty | -0.03 | | 0.035 | | 0.407 | | -0.08 | | 0.070 | | 0.270 |
|  |  | |  | |  | |  | |  | |  |
| Constant | 0.00 | | 0.082 | | 0.958 | | 0.22 | | 0.164 | | 0.179 |
| N | 1,142 | |  | |  | | 1,188 | |  | |  |
| Prob > F | 0.79 | |  | |  | |  | |  | |  |
| R-Squared | 0.003 | |  | |  | |  | |  | |  |
| Prob> Chi2 |  | |  | |  | | 0.77 | |  | |  |
| Pseudo R-Squared |  | |  | |  | | 0.002 | |  | |  |

In model 1, the dependent variable is a perception of corruption index; as described in the *identifying ‘pessimistic perceivers’* section, this was created using principal components factor analysis. Given that the index is a continuous variable, model 1 is an ordinary least squares (OLS) regression. For model 2, the dependent variable is the dichotomous variable created to approximate whether someone is or is not a ‘pessimistic perceiver’. As described in the *testing the interactions* section, we created this using the perception of corruption index. Given that this is a dichotomous variable, model 2 is a logistic regression. Coefficients, standard errors and p-values are presented of each model.

The lack of significant p-values, across the board, demonstrates that exposure to the messages tested does not significantly influence perceptions of corruption.

## ***Appendix G: Full regression results for Figure 2***

*Table G.1: Full regression model for Figure 2*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | *b* | | S.E. | | P.V. | |
| *Treatment groups* | |  | |
| Widespread | 0.34 | | 0.306 | | 0.269 | |
| Religious | -0.02 | | 0.303 | | 0.943 | |
| Gov’t success | 0.19 | | 0.309 | | 0.530 | |
| Local fight | -0.03 | | 0.301 | | 0.923 | |
| Taxes | -0.65 | | 0.311 | | 0.037 | |
| *Pessimism* |  | |  | |  | |
| Pessimistic Perceiver | -0.86 | | 0.296 | | 0.004 | |
| *Interaction terms* | | |  | |  | |
| Widespread x pessimism | 0.39 | | 0.417 | | 0.348 | |
| Religious x pessimism | 0.84 | | 0.413 | | 0.043 | |
| Gov’t success x pessimism | 0.34 | | 0.419 | | 0.423 | |
| Local fight x pessimism | 0.37 | | 0.416 | | 0.367 | |
| Taxes x pessimism | 1.11 | | 0.420 | | 0.008 | |
| *Control* |  | |  | |  | |
| Poverty | 0.23 | | 0.071 | | 0.001 | |
|  |  | |  | |  | |
| Constant | -0.18 | | 0.227 | | 0.419 | |
| N | 1,188 | | | | |
| Pseudo R2 | 0.03 | | | | |
| Likelihood ratio | 41.25 | | | | |
| Prob>Chi2 | 0.000 | | | | |

As discussed in the main text, an insigniﬁcant coefﬁcient reported in a regression output like the above may hide the fact that the interaction term is signiﬁcantly associated with the dependent variable at varying levels of both constituent terms. This is the case here. The above table suggests that the interaction terms are not significant when it comes to the *widespread or religious* treatments. However, in unpacking the effects of the interaction, we found that these interactions are significant, but only at high levels of each of the constituent terms (as noted in Figure 2). This is precisely the reason why we focus on the unpacked effects, rather than the effects noted in a standard regression table.

## ***Appendix H: Robustness checks of models***

## *Robustness check of Table 1, with five different logistic regressions*

As the messages tested are substantially different to each other, we also ran five additional logistic regressions to echo the model ran in Table 1—one for each treatment group. These test whether examining exposure to each message, in isolation, is estimated to have influenced the decision to bribe in our game to the same extent.

*Table H.1: Robustness check of Table 1 models with five different logistic regressions*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Widespread | | | Religious | | | Gov’t success | | | Local fight | | | Taxes | | |
|  | *b* | S.E. | Δ P.P. | *b* | S.E. | Δ P.P. | *b* | S.E. | Δ P.P. | *b* | S.E. | Δ P.P. | *b* | S.E. | Δ P.P. |
| *Treatments* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Widespread | 0.51\*\* | 0.204 | 0.13 |  |  |  |  |  |  |  |  |  |  |  |  |
| Religious |  |  |  | 0.41\*\* | 0.204 | 0.10 |  |  |  |  |  |  |  |  |  |
| Gov’t success |  |  |  |  |  |  | 0.32 | 0.203 | 0.08 |  |  |  |  |  |  |
| Local fight |  |  |  |  |  |  |  |  |  | 0.14 | 0.204 | 0.03 |  |  |  |
| Taxes |  |  |  |  |  |  |  |  |  |  |  |  | -0.07 | 0.207 | -0.02 |
| *Control* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Poverty | 0.24\* | 0.125 |  | 0.30\*\* | 0.127 |  | 0.17 | 0.122 |  | 0.24\*\* | 0.122 |  | 0.37\*\*\* | 0.123 |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Constant | -0.64\*\*\* | 0.207 |  | -0.71\*\*\* | 0.209 |  | -0.56\*\*\* | 0.204 |  | -0.64\*\*\* | 0.204 |  | -0.79\*\*\* | 0.207 |  |
| N | 395 | | | 398 | | | 396 | | | 397 | | | 398 | | |
| Pseudo R2 | 0.02 | | | 0.02 | | | 0.01 | | | 0.01 | | | 0.01 | | |
| Likelihood ratio | 9.85 | | | 9.31 | | | 4.30 | | | 4.58 | | | 9.30 | | |
| Prob>Chi2 | 0.018 | | | 0.010 | | | 0.116 | | | 0.101 | | | 0.010 | | |

Notes: Displayed across the first two columns are coefficients (b) and standard errors (S.E.). To estimate the substantive size of the influence of exposure to the messages, we report predicted probability shifts in the final column (Δ P.P.). These shifts were calculated from post-estimated analyses using marginal effects in Stata, where the effects of other variables in the model were held constant. Significance: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

## *Robustness check of Figure 2 regression, with different specification of pessimism.*

As set out in the main text, for ease of interpretation, Figure 2 is based on regressions which use a dichotomous measure of being a pessimistic perceiver. An additional regression was executed that used the continuous factor index we created of being a pessimistic perceiver, instead of the simplified dichotomous measure. The results of that analysis are found below in table H.2 and are consistent with the findings reported in Figure 2.

*Table H.2: Robustness check of model for Figure 2 with different specification of pessimism*

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | *b* | | S.E. | | P.V. | |
| *Treatment groups* | |  | |
| Widespread | 0.52 | | 0.212 | | 0.013 | |
| Religious | 0.50 | | 0.211 | | 0.017 | |
| Gov’t success | 0.38 | | 0.210 | | 0.074 | |
| Local fight | 0.18 | | 0.213 | | 0.398 | |
| Taxes | -0.02 | | 0.212 | | 0.917 | |
| *Pessimism* |  | |  | |  | |
| Pessimism index | -0.46 | | 0.163 | | 0.005 | |
| *Interaction terms* | | |  | |  | |
| Widespread x pessimism | 0.14 | | 0.223 | | 0.540 | |
| Religious x pessimism | 0.50 | | 0.236 | | 0.017 | |
| Gov’t success x pessimism | 0.38 | | 0.222 | | 0.074 | |
| Local fight x pessimism | 0.18 | | 0.213 | | 0.398 | |
| Taxes x pessimism | 0.57 | | 0.221 | | 0.009 | |
| *Control* |  | |  | |  | |
| Poverty | 0.23 | | 0.073 | | 0.001 | |
|  |  | |  | |  | |
| Constant | -0.65 | | 0.175 | | 0.000 | |
| N | 1,188 | | | | |
| Pseudo R2 | 0.03 | | | | |
| Likelihood ratio | 45.46 | | | | |
| Prob>Chi2 | 0.000 | | | | |

Note: Displayed are the coefficient (b), standard errors and the p-values.

As discussed, an insigniﬁcant coefﬁcient associated with the potential impact of an interaction variable as reported in a regression output like in Table H.2 may hide the fact that the interaction term is signiﬁcantly associated with the dependent variable at varying levels of both constituent terms. It is therefore once again necessary to unpack the results in Table H.2, by exploring the predicted probabilities of paying a bribe at different levels of pessimism. These predicted probabilities are displayed in Table H.3; the pessimism levels were chosen at 20% sample intervals. About 20% of the sample score between: -4.11 and -.75; -.75 and -.18; -.18 and .36; .36 and .68; and, .68 and 1.11.

The results in Table H.3 show that for respondents at a low level of the index, which reflect that a person does not agree that corruption is widespread, exposure to the *widespread, religious, government success,* and *local treatments* is not significantly associated with the choice to bribe. While for those same respondents, exposure to the *tax* treatment is negatively and significantly associated with the choice to bribe. At higher levels of the index, which reflect that a person does agree that corruption is widespread, exposure to the *widespread, religious, government success,* and *taxes* treatment is significantly and positively associated with the choice to bribe, and exposure to the local treatment is not significantly associated with the choice to bribe.

*Table H.3: Predicted Probability of Paying a Bribe at different levels of Pessimism*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Message | Score on Pessimism Index | | | | |
|  | -0.75 | -0.18 | 0.36 | 0.68 | 1.11 |
|  | (predicted probabilities) | | | | |
| Widespread | 0.10 | 0.06\*\* | 0.14\*\*\* | 0.15\*\* | 0.16\*\* |
| Religious | 0.01 | 0.10\* | 0.17\*\*\* | 0.21\*\*\* | 0.27\*\*\* |
| Gov’t success | 0.04 | 0.08 | 0.11\*\* | 0.13\*\* | 0.16\*\* |
| Local fight | 0.01 | 0.04 | 0.06 | 0.07 | 0.08 |
| Taxes | -0.11\* | -0.03 | 0.04 | 0.09 | 0.15\* |

Significance: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

## *Robustness check of full regression results for Figure 2, with five different models*

Similar to our first reported robustness check of Appendix H, here we also report five additional logistic regressions to echo the models which underpin the results in Figure 2—one for each treatment group. These test whether examining the interaction between exposure to each message and pessimism, in isolation, is estimated to have influenced the decision to bribe in our game to the same extent.

*Table H.4: Robustness check of Figure 2 model with five different logistic regressions*

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | *Widespread* | | | | *Religious* | | | | *Gov’t success* | | | | *Local fight* | | | | *Taxes* | | | |
|  | *b* | | S.E. | | *b* | | S.E. | | *b* | | S.E. | | *b* | | S.E. | | *b* | | S.E. | |
| *Treatment groups* | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| Widespread | 0.34 | | 0.306 | |  | |  | |  | |  | |  | |  | |  | |  | |
| Religious |  | |  | | -0.01 | | 0.303 | |  | |  | |  | |  | |  | |  | |
| Gov’t success |  | |  | |  | |  | | 0.17 | | 0.311 | |  | |  | |  | |  | |
| Local fight |  | |  | |  | |  | |  | |  | | -0.03 | | 0.301 | |  | |  | |
| Taxes |  | |  | |  | |  | |  | |  | |  | |  | | -0.65\*\* | | 0.313 | |
| *Pessimism* |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| Pessimistic Perceiver | -0.87\*\*\* | | 0.297 | | -0.85\*\*\* | | 0.297 | | -0.87\*\*\* | | 0.296 | | -0.87\*\*\* | | 0.297 | | -0.85\*\*\* | | 0.298 | |
| *Interaction terms* | | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| Widespread x pessimism | 0.39 | | 0.417 | |  | |  | |  | |  | |  | |  | |  | |  | |
| Religious x pessimism |  | |  | | 0.83\*\* | | 0.414 | |  | |  | |  | |  | |  | |  | |
| Gov’t success x pessimism |  | |  | |  | |  | | 0.36 | | 0.420 | |  | |  | |  | |  | |
| Local fight x pessimism |  | |  | |  | |  | |  | |  | | 0.37 | | 0.415 | |  | |  | |
| Taxes x pessimism |  | |  | |  | |  | |  | |  | |  | |  | | 1.09\*\* | | 0.422 | |
| *Control* |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| Poverty | 0.20 | | 0.127 | | 0.27\*\* | | 0.129 | | 0.17 | | 0.125 | | 0.20 | | 0.124 | | 0.35\*\*\* | | 0.125 | |
|  |  | |  | |  | |  | |  | |  | |  | |  | |  | |  | |
| Constant | -0.14 | | 0.263 | | -0.24 | | 0.264 | | 0.11 | | 0.261 | | -0.15 | | 0.261 | | -0.33 | | 0.262 | |
| N | 395 | |  | | 398 | |  | | 396 | |  | | 397 | |  | | 398 | |  | |
| Pseudo R2 | 0.04 | |  | | 0.03 | |  | | 0.03 | |  | | 0.03 | |  | | 0.03 | |  | |
| Likelihood ratio | 21.14 | |  | | 17.79 | |  | | 16.22 | |  | | 16.10 | |  | | 18.22 | |  | |
| Prob>Chi2 | 0.000 | |  | | 0.001 | |  | | 0.002 | |  | | 0.003 | |  | | 0.001 | |  | |

Significance: \*p<0.10, \*\*p<0.05, \*\*\*p<0.01.

## *Robustness check of Figure 2, with the estimations from five different models*

Here is what Figure 2 would look like if we used the findings reported in the previous table:

*Figure H.1: Figure with reflecting results from table H.4*

## ***Appendix I: Independent variables used in determinants of pessimism model***

*Table I.1: Description and coding of independent variables used in pessimism model*

|  |  |  |  |
| --- | --- | --- | --- |
| Label | Description/Response options | Mean | Std. dev. |
| Female | 1) female; 0) male | 0.50 | 0.50 |
| Education | Completed education; 1) no formal education; 2) primary; 3) secondary; 4) at least some university | 3.43 | 0.63 |
| Poverty | Average response to whether the respondent lacked food, water, medicine, fuel and cash; response options to these questions are: 0) never, 1) just once or twice, 2) several times, 3) many times, and 4) always. | 1.15 | 0.84 |
| Age | Age in years | 33.5 | 10.6 |
| Political interest | How much interest in politics? 1)none; 2) a little; 3) some; 4) a lot | 2.05 | 1.10 |
| APC | 1) Feel close to the All Progressive Congress political party; 0) not. | 0.21 | 0.40 |
| Public employee | 1) government or state employee; 0) not. | 0.05 | 0.21 |
| Witness corruption | 1) In the past year, personally witnessed an act of corruption; 0) not | 0.71 | 0.46 |

Note: Mean and sample deviation were calculated from the full sample of respondents that played the bribery game (N:1,200).

***Appendix J: Ethical considerations, principles, and procedures taken.***

This project was reviewed and given ethical approval by the University of Birmingham’s Ethical Review Committee (ERN\_18-1233).

*Consent and information provided*

Oral consent of the study’s participants was required for all elements of the study. Survey and bribery game participants provided oral consent to the enumerators, and records of providing responses and/or playing the game were used as a record of a participant’s consent.

All participants were given an information sheet. This sheet introduced the project and described the research as follows:

*“You are invited to participate in a research study which seeks to understand popular attitudes towards corruption in Nigeria. We are interested in what people think about the causes and consequences of corruption, and what can be done about it. We are particularly interested in how people think about these issues in Lagos, which is the main focus of the research project. The idea of the research is to generate enough data to be able to write two journal articles about it. We will be happy to share these with all participants free of charge when they have been published.”*

The information sheet then listed the names of those on the research team, their institutional affiliations, as well as the fact that the research had been approved by a University’s Ethical Review Committee and gave the email address to one of the members of the research team in case they had questions about the research. It also described who the funder was of the research. The information sheet then described the consent protocols as:

*“You are invited to answer a short survey relating to your thoughts about corruption in Nigeria. You are free to answer as much or as little as you like and are free to stop at any point. Your answers will be entered into a tablet and the data generated through this project will held on a secure server to ensure that they are protected. All of the information that we collect will be anonymized so that your name will never be associated with your responses and no one will be able to tell that you participated in the study or to identify your particular set of responses.”*

Participants were then told that by participating in the study they were consenting to storing their information for the purposes stated above. They were told that no identifiable personal data will be published.

Additionally, prior to the start of the survey the following statement was be read to all potential participants; this statement was included on the survey instrument, itself:

*‘Good morning/afternoon. We are conducting a survey to learn what citizens think about public services and the experiences they have with public officials. We are particularly interested in how you feel about corruption in the government. This interview is anonymous; your name will not be printed on any document. The answers will be dealt with in a totally confidential manner. None of the questionnaires will be revealed to any person, member of government, or institution. The results of this questionnaire will be used for academic research purposes and to help design strategies that will improve governance in Nigeria. If at any point in time you would like to stop answering the survey questions, please let me know and I will stop asking them and recording your responses. Would you spare some time to answer the following questions?’*

Only those people that give verbal consent to answer the survey questions were participants.

It is best practice to include a more detailed debriefing explanation of the more specific purposes of the study at the end of a survey experiment instrument. This is because while it is of course right and necessary to make sure that participants understand the focus of the project and why it is being conducted from the start of the research, providing too much specific information at the start could influence how participants react to the experimental treatments, and therefore undermine their efficacy. Therefore, participants received a second briefing/debrief that went into greater detail than the first after the survey and game was finished, with the following statement that was read to them by the enumerators:

*‘Thank you for your participation. We previously informed you that the purpose of the study was to understand how you felt about public officials in Nigeria. The more specific goal of our research is to see how anti-corruption awareness raising messages influence how people feel about public officials.*

*If you would like to receive a copy of the final report of this study when it is completed, please let me know and I will record your name and address separately for the purposes of mailing to you the report only. Your name and address will not be in any way recorded in association with the responses you have given to the questions I have asked you. Alternatively, you can write to the head researchers and ask for a report or contact them with any questions related to the study, its purposes, or procedures. I can provide to you their email addresses if you would like.’*

*Deception*

* We did not deceive participants about who enumerators were, that they were working on a research project with us (authors), or who the authors are.
* We did not deceive participants about what we were doing—conducting a social science research project.
* We did not deceive participants about the motivations of the study.
* We did not provide false information about the state of the world.
* We did not provide false information about the money to be won/lost during the game.

*Participant withdrawal*

Participants had the right to withdraw from the project at any point, and was be informed of this before their survey is conducted with the following statement (included in the above):

“If at any point in time you would like to stop answering the survey questions, please let me know and I will stop asking them and recording your responses.”

*Payment for participation*

There is no set money or compensation for participation in the research. A random sub-sample of survey participants played a short game on a tablet in which they can earn small amounts of money depending on their responses to a structured situation. The details of these payouts are explained in the manuscript text.