

The unintended consequences of anti-corruption messaging in Nigeria: Why pessimists are always disappointed

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Executive summary

Corruption has long been recognised as a significant challenge to sustainable development, both because it leads to the waste of public resources and because it can distort incentives for officials and citizens alike. The push to combat corruption has generally focused on either efforts to improve the enforcement of the rule of law by political leaders and bureaucrats or to encourage support for and adherence to the rule of law among ordinary citizens. So far, these strategies have met with limited success (Johnson et al., 2012; Persson et al., 2013; Rocha Menocal and Taxell, 2015). Partly for this reason, a great deal of effort continues to be invested in shifting public opinion with regards to the dangers of corruption. This makes intuitive sense. If the only way to bring about sustainable anti-corruption reform is to work with and shape the incentives facing powerful figures, one area of focus should be identifying ‘anti-corruption strategies from the bottom-up’ (Khan et al., 2019: 3) by increasing popular demand for a ‘clean’ government.

However, a recent strand of quantitative research has suggested a deeply concerning finding: by making individuals aware about the pervasiveness of corruption, anti-corruption messages may make citizens more despondent and undermine their willingness to fight back (Peiffer, 2017; 2018). In other words, telling people about corruption may make the fight for a ‘clean’ government seem helpless. It may exacerbate the notorious collective-action problem in this area and encourage individuals to ‘go with the flow’ rather than to ‘stand against the tide’. More worrying still, some studies have suggested that this is not only the case for messages that explicitly stress how pervasive corruption is: even much more careful, targeted and upbeat statements that emphasise anti-corruption efforts may have this effect (Peiffer, 2018). This is of profound importance for policy-makers, because it suggests that any campaign that primes the public to think about corruption may do more harm than good.

In this paper, we report the findings of new research conducted in Lagos, Nigeria, in 2019. We administered a survey to 2,400 participants and played a ‘bribery game’ with 1,200 participants in order to better understand how individuals respond to different kinds of anti-corruption messages. More specifically, this paper pushes the debate forwards in four ways:

- 1 We focus on the influence of messaging on corrupt behaviour, as opposed to public attitudes towards corruption or self-reported willingness to pay a bribe. Significantly, this is the first paper that tests the impact of anti-corruption campaigning on behaviour by showing messages to individuals in their own homes, and then asks them to play a ‘bribery game’ in which they stand to win real money depending on whether or not they are willing to pay a bribe. As a result, it offers a more realistic test of the impact of anti-corruption messages on corrupt behaviour than previous studies, which have been conducted in an artificial laboratory setting or have assessed attitudes through survey questions with individuals not having to forego any real-world benefits when disavowing corrupt practices.

- 2 We test the impact of five different messages – more than any previous study has tested – which represent a broader range of framings, tones and themes, including those that stress the direct connection between corruption and an individual, for example through the misappropriation of citizens' tax payments.
- 3 We go beyond the focus of the extant literature by looking at the varying effects that anti-corruption messages have on different types of individuals. This, we found, is of crucial importance to ascertain why anti-corruption messages have unintended consequences, and under what conditions this effect is most pronounced.
- 4 Finally, our study looks at a new case – Lagos, Nigeria – which enables us to say more about the generalisability of the emerging critique of anti-corruption messaging. More specifically, this paper is the first to examine the influence of anti-corruption messaging in West Africa and only the second in sub-Saharan Africa.

The main findings of the paper endorse the bleak warnings of prior studies in this area, but they also offer a glimmer of hope. In line with most of the existing literature, we find that anti-corruption messages either had no effect or actually made Lagosians more likely to pay a bribe. Our findings also support the hypothesis that anti-corruption messages prime citizens to think more about corruption and can emphasise the extent of the problem and so encourage 'corruption fatigue'. In turn, this reinforces collective-action problems and makes individuals more likely to go with the grain rather than to stand against the tide.

Perhaps most significantly, our findings demonstrate that the negative effect of anti-corruption messaging is far more powerful among those individuals who are 'pessimistic perceivers' – i.e. who already believe that corruption is pervasive. This is important because it reveals that the problematic consequences of anti-corruption messages are not universal, which is something previous literature has not explored. Moreover, while most messages had no positive effect on non-pessimists, there was no message that generated a statistically significant increase in the willingness of this sub-group to pay a bribe, and in one case – that of the taxation treatment – the message had the desired effect of reducing the probability of paying a bribe. This is noteworthy, because no other messaging conducted in this way has so far found that exposure to a message about corruption can discourage bribery among citizens.

The paper has a clear and important message to policy-makers, therefore: **untargeted anti-corruption messaging is not just a waste of money but may actually make it harder for other strategies to succeed**. Consequently, it is imperative to halt these campaigns while we investigate whether messages can be more carefully designed and communicated to effectively target the right information to those who do not already perceive corruption to be pervasive. This is also in line with the work of Khan et al (2019) which outlines how targeted anti-corruption at the sectoral level works better than broad anti-corruption messaging.

In turn, our findings suggest the need for three very different strands of future research.

- 1 *To better understand why the only message that is effective for non-pessimists is that of corruption representing the theft/diversion of taxes paid by citizens, and to think through how this message can be most effectively harnessed.* It is possible that different messaging on a similar theme – for example emphasising the payment of local fees, or the

impact on a citizen's wealth in other ways – may be even more effective. Although such messages only had an impact for non-pessimists, this at least represents an opening that can be built on.

- 2 *To better understand who falls into the 'pessimistic perceivers' and 'non-pessimistic perceivers' categories and why.* Further investigation of this issue is advisable both because the answers to these questions may shed light on how we can reduce the proportion of people that believe that corruption is endemic, and because it may provide insight as to the kinds of people that can be most effectively targeted with anti-corruption messaging.
- 3 *To investigate how anti-corruption messaging can be targeted at specific individuals.* Social media and the advent of big data make it theoretically possible to target adverts much more narrowly and therefore, in this case, more effectively. This raises the prospect that anti-corruption agencies could target specific messages – for example around taxation and corruption – directly at the 'non-pessimistic perceivers' on whom they will have the most positive effect.

Working out how to more effectively target messages would not completely transform public opinion of course, as they would only reach one part of the population. It could, however, begin to build public resistance to corrupt activities – especially when used in conjunction with anti-corruption interventions in other areas. At the very least, such efforts will do no harm.

1. Introduction

Corruption has long been recognised as a significant challenge to sustainable development, both because it leads to the waste of public resources and because it can distort incentives for officials and citizens alike. The push to combat corruption has generally focused on either efforts to improve the enforcement of the rule of law by political leaders and bureaucrats or to encourage support for and adherence to the rule of law among ordinary citizens. So far, these strategies have met with limited success (Johnson et al., 2012; Persson et al., 2013; Rocha Menocal and Taxell, 2015). At the elite level, this is because anti-corruption programmes have often failed to recognise the incentives of influential individuals, who – if they are operating in broadly corrupt environments characterised by weak institutions – have little reason to enact meaningful reform (Khan et al., 2017). As the Anti-Corruption Evidence (ACE) research consortium has found, ‘in contexts where the distribution of organisational power allows a wide range of powerful individuals and organisations to violate rules, a strategy that assumes that we can strengthen the enforcement of rules is likely to result in poor results in the short to medium term’ (*ibid*: 3).

Partly for this reason, a great deal of effort continues to be invested in shifting public opinion with regards to the dangers of corruption. This makes intuitive sense. If the only way to bring about sustainable anti-corruption reform is to work with and shape the incentives facing powerful figures, one area of focus should be identifying ‘anti-corruption strategies from the bottom-up’ (*ibid.*) by increasing popular demand for a ‘clean’ government. After all, multi-party elections have been shown to make political leaders more sensitive to the demands of their supporters, even in ‘competitive-authoritarian’ contexts where elections are regularly manipulated (Cheeseman and Klaas, 2018; Harding, 2020).

Millions of pounds of funding from donors, non-governmental organisations (NGOs) and anti-corruption agencies has been invested in encouraging ordinary citizens to condemn graft and to reject those who participate in it. Yet there has been limited systematic research to test the impact of anti-corruption messaging on the general public. To date, only four studies have examined the impact of anti-corruption messaging (Corbacho et al., 2016; Peiffer, 2017 and 2018; Kobis et al., 2019; Peiffer and Walton, 2019), and only two of those have examined whether messaging influences an individual’s willingness to pay a bribe. In both of these studies, exposure to a particular message failed to encourage citizens to reject bribery (Corbacho et al., 2016; Kobis et al., 2019). These limited findings suggest that – just as with powerful political figures – there may be structural and psychological processes that prevent ordinary citizens from responding to anti-corruption messages in the desired way. We therefore need to know much more about why this happens and what the implications are for the fight against corruption. This paper contributes to and advances this discussion by exploring the effect of anti-corruption messaging on bribery in Lagos, Nigeria.

There are a number of intuitive reasons to think that raising public awareness about the ills of corruption will strengthen support for clean government. A nearly universally accepted adage in anti-corruption work is that because graft ‘lives in the shadows’, a first and most crucial step to fighting corruption is to shine a light on it. Highlighting corrupt practices can

both raise public awareness and demonstrate the link to negative outcomes of concern to the public, such as a lack of education and health facilities. This seemingly uncontroversial idea inspired the name of the world's most prominent anti-corruption organisation – Transparency International – and has served as the starting point for many anti-corruption policies. A classic example is the advice of the 2004 *United Nations Convention Against Corruption* (UNCAC) that governments invest in raising the public's awareness to the 'existence, causes and gravity of and the threat posed by corruption' (United Nations, 2004: 15). Taken together, these assumptions and guidance have driven efforts to promote freedom of and access to information and the protection of whistle-blowers, as well as having inspired a nearly ubiquitous push among donors and NGOs to raise public awareness regarding the issue of corruption.

Anti-corruption awareness-raising efforts come in many forms – billboards, posters, murals, radio and television shows, and so on. In some cases, these efforts are backed up by public roadshows, anti-corruption education curriculum and by stickers or notices that proclaim key institutions are 'corruption-free zones' and encourage citizens to report corruption. Such messaging has at times been criticised in qualitative research for having a limited effect, typically on the basis that most individuals do not see the messages, or that they are not influential enough to be really noticed amongst all of the other kinds of information that people receive (Baez Camargo, 2017; Hoffman and Patel, 2017). But a recent strand of quantitative research has suggested something much more problematic: by making individuals aware about the pervasiveness of corruption, these messages may make citizens more despondent and undermine their willingness to fight back (Peiffer, 2017; 2018).

In other words, telling people about corruption may make the fight for a 'clean' government seem helpless. It may exacerbate the notorious collective-action problem in this area and encourage individuals to 'go with the flow' rather than to 'stand against the tide'. More worrying still, some studies have suggested that this is not only the case for messages that explicitly stress how pervasive corruption is: even much more careful, targeted and up-beat statements that emphasise anti-corruption efforts may have this effect (Peiffer, 2018). This is of profound importance for policy-makers, because it suggests that any campaign that primes the public to think about corruption may do more harm than good.

In this paper, we take this discussion forward in four main ways. First, we focus on the influence of messaging on corrupt behaviour, as opposed to public attitudes towards corruption or self-reported willingness to pay a bribe. Significantly, this is the first paper that tests the impact of anti-corruption campaigning on behaviour by showing messages to individuals in their own homes, and then asks them to play a 'bribery game' in which they stand to win real money depending on whether or not they are willing to pay a bribe. As a result, it offers a more realistic test of the impact of anti-corruption messages on corrupt behaviour than previous studies, which have been conducted in an artificial laboratory setting or have assessed attitudes to corruption through survey questions in which individuals have not had to forego any real-world benefits when disavowing corrupt practices. Second, we test the impact of five different messages – more than any previous study has tested – which represent a broader range of framings, tones and themes, including those that stress the direct connection between corruption and an individual, for example

through the misappropriation of citizens' tax payments. Third, we go beyond the focus of the extant literature by looking at the varying effects that anti-corruption messages have on different types of individuals. This, we find, is of crucial importance to ascertain why anti-corruption messages have unintended consequences, and under what conditions this effect is most pronounced. Finally, our study looks at a new case – Lagos, Nigeria – which enables us to say more about the generalisability of the emerging critique of anti-corruption messaging. More specifically, this paper is the first to examine the influence of anti-corruption messaging in West Africa and only the second in sub-Saharan Africa.

Our findings speak to the remarkable resilience of corruption in many developing countries, but also offer a glimmer of hope. In line with previous research, we find that exposure to anti-corruption messages fails to discourage corrupt behaviour and, in some cases, actually makes individuals more willing to pay a bribe. However, we also find that this effect is not universal. In particular, the effect of anti-corruption campaigns is conditioned by an individual's pre-existing perceptions regarding the prevalence of corruption. Among those who already believe that corruption is widespread, anti-corruption messages often backfire and encourage corrupt behaviour. The situation is more positive among those who do not already perceive corruption to be such a big issue: for this group, most messages have no effect while one – the message that stresses the direct impact of corruption on individuals through the lens of taxation – made respondents significantly less likely to pay a bribe. Thus, while anti-corruption messaging does not have a positive effect overall, and many messages actually make the situation worse, certain messages that are targeted at particular individuals can strengthen public resolve to resist corruption.

That the impact of messages is so shaped by perceptions of the pervasiveness of corruption has important theoretical and policy implications. On the theoretical side, this finding suggests that the main reason why anti-corruption messages have negative consequences is that they reinforce popular perceptions that corruption is widespread and so contribute to the collective-action problem: because citizens believe that corruption is endemic, they come to the conclusion that it is beyond their power to do anything about it, and so become despondent. Put differently, raising awareness appears to lead to an 'if everyone else is doing it, why not me?' attitude that may encourage bribery. On the policy side, it is clear that untargeted anti-corruption messaging is not just a waste of money but may actually make it harder for other strategies to succeed. It is therefore imperative to halt these campaigns while we investigate whether messages can be more carefully designed and communicated so that they effectively target the right information to those who do not already perceive corruption to be pervasive. If this can be done, it may be possible to strengthen the resolve of part of the population without deepening the scepticism of everyone else. If not, conventional anti-corruption information and awareness-raising campaigns may have to be abandoned. Either way, we are left with a challenging conundrum: how to demonstrate the need to fight corruption without making citizens believe that it is too big a problem to be solved.

The remainder of the paper is structured as follows. Section 2 sets out our theoretical approach around awareness-raising in anti-corruption strategies and the adverse effects that have been observed alongside the opportunities for influencing positive behaviour. In

section 3 we describe our methodology for the survey and the ‘bribery game’ that we have designed to test our hypotheses. Our results are presented in section 4, before we conclude in section 5.

2. Theoretical approach

Most anti-corruption strategies contain an awareness-raising element. The expectations underlying these efforts are that, once more aware, the public will become less tolerant of, and less willing to engage in, corruption. This logic is spelled out in the 2004 UNCAC, wherein signatory states are called to raise awareness through ‘public information activities’ to the ‘existence, causes and gravity of and threat posed by corruption’ so as to contribute to the ‘non-tolerance of corruption’ (United Nations, 2004: Article 13, p. 15).

The idea that messaging can shape behaviour resonates well with broad findings from the field of experimental political psychology, which has shown that messaging can significantly shape political behaviour (Berinsky et al., 2010; Nosek et al., 2010; Carter et al., 2011). Significantly, it has even been established that political messages can shape behaviour even when they are not seen to be particularly influential by those exposed to them (Erisen et al., 2014).

Despite this, however, policy documents on awareness-raising rarely specify how it is that messaging is expected to contribute to corruption reduction. In the UNCAC, an authoritative example, there is no discussion of exactly how awareness-raising is expected to translate into results. This is significant, because over the last few years a growing literature has cast doubt on the efficacy of anti-corruption messages, suggesting that such campaigns may be ‘priming’ the issue of widespread corruption with negative consequences. Through ‘priming’, political messages may change how a person behaves simply because the message makes them think more about the issue than they would have done otherwise (Brody and Page, 1972; Riker, 1986; Lenz, 2009). When it comes to corruption, the concern is that if information campaigns shape behaviour because they ‘prime’ the issue of pervasive corruption, raising awareness may have the opposite effect to that intended: instead of compelling a rejection of corruption, campaigns may backfire and actually *encourage* corrupt activity.

2.1. Priming widespread corruption: the backfire effect

The concern that anti-corruption messaging is counter-productive has its roots in literature that casts systemic corruption as a collective-action problem. The core logic of this literature suggests that when a person believes that most others in society are engaging in corruption, they will also be less likely to believe that it is in their personal interest to abstain from it (Bauhr and Nasiritousi, 2011; Mungiu-Pippidi, 2011; Rothstein, 2011; Persson et al., 2013 and 2019). Instead, when a person believes that most others engage in corruption, they will become fatigued (Peiffer and Alvarez, 2016) and fearful that if they do not engage in corruption they will personally: 1) be sanctioned socially – for deviating from the perceived norm; 2) be punished materially, in relative terms – i.e. pay more, wait longer or go without a service, good or job; 3) be the ‘honest sucker’ – and miss out on an opportunity to benefit from engaging in corruption that others will take advantage of; and/or 4) not be able to make a difference in corruption patterns by their singular abstention.

A similar concern emerges from a different body of literature that considers how to reinforce or shift social norms, for example to promote a belief in gender equality (Evans,

2019). From this literature, there is growing evidence that individuals are more likely to engage in certain behaviours if they believe that others have already done so (Tankard and Paluck, 2016). Significantly, recent research conducted in Nigeria has come to similar conclusions. As Hoffman and Patel (2017) write, many Nigerians have overly pessimistic beliefs about the fight against corruption, in part because they believe that fellow citizens are more supportive of corrupt activities than is really the case. As a result, ‘efforts to reform government institutions cannot by themselves sustain a comprehensive reversal of long-established assumptions and practices in the absence of a decisive shift in public apathy and a collective will to achieve collective behavioural change’ (*ibid*: iv–v).

On the basis of the overlapping ‘corruption as a collective-action problem’ and social norms literatures, it is clear that raising awareness of the problem among those who believe that corruption is widespread may be problematic. Making ‘pessimistic perceivers’ more aware of the problem, in the words of Persson et al. (2013: 464–465), will encourage ‘even former noncorrupt actors to take part in the corrupt game’. Importantly, the implication here is that for ‘pessimistic perceivers’ any messaging at all – even an inspiring message about anti-corruption – can encourage more corruption. This is because by priming the issue even the most well-intentioned awareness-raising efforts may further encourage those that believe that corruption is widely practiced to just resign themselves to a corrupt system and go with the corrupt grain.

To the best of our knowledge, only four empirical studies have so far been conducted to assess the influence of anti-corruption messages on beliefs about corruption, and to a more limited extent, on corrupt behaviour (Corbacho et al., 2016; Peiffer, 2017 and 2018; Kobis et al., 2019; Peiffer and Walton, 2019;).¹ While none of these studies scrutinised whether ‘pessimistic perceivers’ respond differently to messaging – as the logic around corruption as a collective-action problem suggests – the findings of one of these studies is especially relevant for our purposes. Using a household survey of 1,000 respondents in Jakarta, Indonesia, Peiffer (2017; 2018) examined what influence four messages about corruption and anti-corruption had on attitudes and perceptions. The messages respectively emphasised: 1) cases of grand or high-level corruption; 2) the pervasiveness of petty or lower-level corruption; 3) successes the government had had in fighting corruption; and, 4) how ordinary citizens could easily get involved in the fight against corruption. Significantly for our discussion, all messages tested were found to illicit *the same degree* of increased worry about the harms that corruption causes, decreased pride in the government’s efforts to fight corruption, and decreased confidence that ordinary people can participate easily in anti-corruption civic activities (Peiffer, 2018).

¹ Several other scholars have researched how messages about corruption influence political behaviour. The majority of these studies examine how messages about corruption influence attitudes towards voting and voting patterns (see Figueiredo et al., 2011; Anduiza et al., 2013; Winters and Weitz-Shapiro, 2013; Chong et al., 2015;). Using experimental research designs, these studies tend to expose citizens to messages about a specific corruption scandal, and gauge whether that exposure provokes citizens to punish the implicated politicians at the polls.

Peiffer (2017) also found that these messages had a negative influence on willingness to join an anti-corruption organisation or protest, and little influence on willingness to report corruption. This is surprising because some of the messages tested were explicitly designed to mobilise citizens in just this way. Perhaps more significantly, this research found similar results when testing messages that were very different in terms of their framing, content and tone. Peiffer's (2017; 2018) conclusions therefore lend compelling support to the notion that any message at all about (anti-)corruption may backfire.

Two of the other existing messaging studies reinforce this point, although as they only examined the impact of one message they tell us less about whether different messages elicit a universal reaction. Corbacho et al. (2016) pioneered corruption messaging studies by conducting a survey experiment with more than 4,000 respondents in Costa Rica in 2013. They found that respondents exposed to the message that an increasing rate of Costa Ricans were practising corruption became more likely to indicate that they would be willing to pay a bribe to a police officer. Like Peiffer's (2017; 2018) conclusions, Corbacho et al.'s (2016) findings therefore suggest that messaging can have problematic consequences.

More recently, a messaging experiment conducted by Kobis et al. (2019) used a lab-in-the-field experiment design to ask similar questions. Working in Manguzi, a town in KwaZulu-Natal, South Africa in 2018, the team asked 311 participants to play a social dilemma bribery game on a computer in a mobile lab erected in town. To approximate bribery, participants were rewarded with small amounts of money, depending on the choices they made. The researchers distributed posters throughout Manguzi with messages about how self-reported bribery had decreased in recent years in the region. Kobis et al. (2019) found that the treatment group (those who played the game after the posters were displayed) were not less likely to choose to bribe than the control group (those who played the game before the posters were displayed), when participants took the role of the citizen in the bribery game.² While these findings do not suggest that messaging will backfire, they also do little to inspire confidence in the efficacy of this strategy for reducing corruption.

The implications of the insights from collective-action theory, the social norms literature, and the results found in Peiffer's (2017; 2018) anti-corruption messaging study point in the same direction. Taken together, they suggest that because (anti-)corruption messages prime individuals to think about the extent of corruption in their society, campaigns are likely to backfire and encourage more corrupt behaviours, especially among those who already perceive corruption to be widespread. From this we derive a first hypothesis to test:

H1: Amongst those who believe that corruption is widely practiced – irrespective of differing tones or contents – exposure to any message about corruption will increase willingness to engage in corruption.

² Though they did find that the treatment group was less likely to accept a bribe when they took the role of the public official in the bribery game.

2.2. Influencing behaviour through positive persuasion

While different messages may influence behaviour similarly by *priming* the issue of corruption as predicted in H1, it is also possible that variation in the tone and content of messages may lead to different consequences. This has been demonstrated empirically by the fourth anti-corruption messaging study, Peiffer and Walton's (2019) survey experiment in Port Moresby, Papua New Guinea, in 2018. Using a sample of over 1,500 respondents, their study examined the influence of four messages on willingness to report corruption. The messages they tested emphasised that corruption: 1) is illegal and undermines the rule of law; 2) is opposed by respected religious leaders and institutions and is immoral according to religious teachings; 3) is as much of a local issue as it is a national issue and can be effectively fought at a local level; and 4) that corruption is widely practised at all levels of government and in society. The authors found that exposure to three of the messages had no significant impact on attitudes towards reporting corruption. However, exposure to the third or 'local' message was found to encourage favourable attitudes about reporting corruption. This stands out as a rare example of an anti-corruption message that had the intended effect, and suggests that it may be the case that not all messages are either ineffectual or backfire. It is therefore important to conduct further tests to assess whether different messages equate to different results.

One way to make sense of Peiffer and Walton's (2019) finding is that messaging may influence behaviour through *persuasion*. In contrast to priming, which only makes a person think more about an issue, a persuasive message changes the way a person thinks about an issue, and may therefore prompt different actions (Brody and Page, 1972; Riker, 1986; Lenz, 2009). Numerous studies on message framing, for example, show that how an issue is presented can significantly change how the public thinks about an issue and their political opinions (see Nelson et al., 1997; Jacoby, 2000; Druckman, 2001; Sniderman and Theriault, 2004). Given Peiffer and Walton's (2019) finding – that the only message that positively shaped attitudes was one that emphasised that corruption is as much of a local issue as it is a national issue and can be effectively fought at a local level – we might expect that messages which frame the issue of (anti-)corruption as a social ill that directly hurts the community, or even the individual, will be particularly effective at discouraging corruption.

To an extent, this reflects existing practice. A strand of research within the anti-corruption literature emphasises the value of ensuring that campaigns speak to local issues and are sensitive to local context. Such 'community-based anti-corruption programmes', which are 'physically and conceptually located in a community to fight and counter corruption', have often been found to be more effective (Richards, 2006: 5). Reinikka and Svensson (2011), for example, have demonstrated that informing citizens about localised education funding in Uganda inspired greater citizen monitoring which in turn ensured that money flowed to the schools that it was intended for.

At the individual level, corruption experts such as Kenya's former Anti-Corruption Tsar John Githongo have long argued that one of the reasons that corruption has not historically ranked as a higher priority for citizens in African states is that individuals do not always see the connection between elite-level theft and graft and their own personal circumstances. Indeed,

Afrobarometer surveys have found that only 1–5% of respondents see corruption as one of the most important issues facing their country (Mattes et al., 2000). As a result, citizens may feel that corruption is a marginal matter relative to, say, education and law and order, because the connection between the theft of public funds and the limited resources available for these services is partly hidden to them. Some individuals may even endorse corruption – or not see graft as corruption at all – in cases where they feel that clientelism and patronage benefit their own group and this is legitimised by prior exclusion from the benefits of state resources (Cheeseman et al., 2020). As Olivier de Sardan (1999) has influentially argued, legitimising corruption in this way is considerably easier in countries where graft is not seen as something out of the ordinary but rather as a basic fact of life. Significantly, qualitative research on Nigeria has often emphasised exactly this point, as with Smith's (2008) book *A culture of corruption: everyday deception and popular discontent in Nigeria*.

The literature on social contracts in Africa has come to a similar conclusion from a different perspective. It is common for researchers to argue that one reason that there are not greater demands for political accountability in Africa – for better provision of education, healthcare and security – is that few citizens pay direct (i.e. income) tax (Prichard, 2015; Moore et al., 2019). The assumption here is that because many individuals are too poor to pay income tax, or the state is too weak to collect it, a large part of the population does not see the connection between their money and government revenue. Indirect taxes such as sales taxes or value added tax (VAT) do not have the same effect precisely because they are rarely explicitly stated and may not be paid by those who rely on informal markets. Recent research – including a number of studies in Nigeria (see Bodea and LeBas, 2013) – have confirmed that taxation can play a central role in the formation of a social contract that, over time, results in citizens expecting more from the government. This is particularly relevant in Lagos, where the state government has, for over a decade, focused on increasing its funds by broadening out the state's 'pay as you earn' (PAYE) revenue base and extending the 'tax net' to cover those in lower income groups (Cheeseman and de Grammont, 2017).

The underlying logic of a number of existing studies, anti-corruption experts, and the social contract literature, therefore suggest the same conclusion: individuals will be more willing to condemn corruption and act against it if they can see the relationship between graft and their own personal finances or locality more explicitly. This gives rise to an alternative hypothesis to H1:

H2: Messages that emphasise the way in which corruption impacts on a specific individual and their community will have a greater effect in terms of reducing bribe paying behaviour.

2.3. Leadership framing

Of course, the efficacy of awareness-raising efforts may also be shaped by other ways of framing messages. A further strand of research has demonstrated that citizens often rely on 'information shortcuts' or 'heuristics' to make voting decisions, and so messages may be particularly persuasive if they are endorsed by leaders (Kahneman et al., 1982; Lupia, 1994). The logic of this idea is that when individuals are presented with a message, they may be

persuaded of its argument by virtue of the perceived characteristics of the leaders who endorse it (Dewan et al., 2014).

A more pessimistic, but related, argument has been made about the influence of leadership on grassroots corruption. The often cited ‘fish rots from the head down’ metaphor has been used to describe the notion that when deciding whether or not to engage in corruption, citizens take cues from public officials (see Rothstein and Eek, 2009; Rothstein, 2013; Rose Ackerman, 2015). In Rothstein’s (2013: 1021) words, ‘the ethics of public officials become central here, not only with respect to how they do their jobs but also to the signals they send to citizens about what kind of “game” is being played in the society’.

When applied to anti-corruption messaging, the logical extension of the ‘fish rots from the head down’ hypothesis can be bleak. If a message persuades individuals that leaders are in on the corrupt game, we should expect that citizens will be more willing to engage in corruption themselves. However, the same logic can be applied to generate a more hopeful prediction too. If a message is able to persuade citizens that the government or other leaders are earnestly fighting corruption – as opposed to engaging in it – citizens may be more willing to resist corruption themselves. To this end, Peiffer and Alvarez (2016) found that in countries that were not member states of the Organisation for Economic Cooperation and Development (OECD), those who perceived that the government was effective in fighting corruption were significantly more willing to personally engage in anti-corruption civic activities, such as protesting. Persuaded by such messaging, citizens may feel encouraged that the ‘corrupt game’ is actually changing. As a result, this kind of messaging may plausibly have a positive effect somewhere like Lagos, because while corruption remains a significant problem, recent governors – as we explain in greater detail below – have earned a reputation for implementing serious reforms and for improving the quality of governance (Cheeseman and de Grammont, 2017). From the optimistic framing of this logic, we derive a third hypothesis:

H3: Awareness-raising messages that emphasise that leaders are actively fighting corruption will discourage a willingness to engage in corruption.

2.4. Filling the gaps

In addition to testing the hypotheses set out above, our research contributes to the emerging literature on awareness-raising in four important ways:

- First, **we focus on corrupt behaviour**, as opposed to self-reported willingness to pay a bribe (Corbacho et al., 2016), perceptions of corruption (Peiffer, 2018) or willingness to report corruption (Peiffer, 2017; Peiffer and Walton, 2019). We do this by building on the work of Kobis et al. (2019) by playing a ‘bribery game’ that gives individuals an opportunity to win real-world money, thus providing a much more robust check on whether messages shape actual behaviour.

- Second, unlike Corbacho et al. (2016) and Kobis et al. (2019), **we test more than one message**, similar to Peiffer (2017; 2018) and Peiffer and Walton (2019). By testing five messages, we examine whether different framings – like emphasising the role of leadership or the localised impact of corruption on individuals – generates a more positive response.
- Third, **we operate with a large and representative sample** of Lagos State (see Appendix A), and so our findings represent a more reliable assessment of the actual impact of corruption messaging in a given location than studies that rely on smaller and/or non-random samples, as in Peiffer and Walton (2019) and Kobis et al. (2019).
- Finally, our analysis **tests the influence of an interaction between the different treatments and pre-existing beliefs about the prevalence of corruption**, which allows us to provide greater insight into the question of under what conditions mechanisms such as priming and norm enforcement/challenging have the greatest effect. This is important because the ‘corruption as a collective-action theory’ hypothesis (H1) suggests that messaging will have an especially detrimental impact on those that perceive that corruption is widely practised. Previous studies have failed to test for an interaction effect between exposure to messages and perceptions of corruption. Doing so explicitly tests whether the impact of a message is in fact dependent upon prior perceptions of how common corruption is.

3. Methodology

3.1. Location

This study uses data from an original experiment conducted in Lagos, Nigeria. Located in the southwest of Nigeria, Lagos is one of world's fastest growing megacities with an estimated population of between 14 and 21 million people (depending on whether one uses the statistics from the Lagos State Government or the national government) and is led politically by a directly elected governor as one of the 36 states that make up Nigeria's federal political system (Cheeseman, 2015). A port city, Lagos is also the former political capital of Nigeria and continues to be widely recognised as the country's economic capital.

In addition to its size and significance as the largest city in sub-Saharan Africa, four features of Lagos make it particularly suitable for this study. First, corruption is thought to be a considerable problem. Of the 183 countries assessed in Transparency International's 2019 Corruption Perception Index, Nigeria is ranked 146th place for its control of corruption, which is on par with Angola and Bangladesh and slightly lower or 'worse' than Uganda (Transparency International, 2020). Second, corruption is not a socially taboo topic to discuss in Nigeria (Smith, 2008); within such a context, recruitment of potential participants for a study like this is not problematic. Third, as an ethnically and religiously diverse context with high levels of both poverty and inequality, Lagos shares many of the features that are often said to complicate development efforts in developing countries (Cheeseman and de Grammont, 2017). Finally, despite this challenging context, the Lagos State Government has had some public 'wins' in its fight against corruption and efforts to close the 'tax gap', most notably under the governorship of Babatunde Fashola (2007–2015), whom *The Economist* magazine described as 'a rare good man' (*Economist*, 2011). This makes it a good location to test credible messages about the government's leadership in fighting corruption, as well as a message about taxes.

3.2. Recruitment

The study ran from 21 December 2019 to 12 January 2020. For the overall survey, 2,400 individuals took part, of which 1,200 participants played our bribery game.³ The study relied on Afrobarometer's well established recruitment protocol (Afrobarometer, 2020) and was conducted in person at the household level. Specifically, 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

³ 1,372 participants were asked by enumerators if they wanted to play the game, of which 1,200 decided to play after being told the details of the game. The remaining 172 survey participants decided not to take part in the game. The decision to play the game is not significantly associated with treatment group assignment and is therefore treated as independent of any influence of the treatments tested.

selected on the basis of the national census frame. Our sample is representative of Lagos State in terms of income, ethnicity and religion, therefore. Survey starting points within each local government authority (LGA) were then randomly selected; households where 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.

Details on the demographic characteristics of the sample and of Lagos State itself are available in Appendix A.

3.3. Instrument

The bribery game that we focus on in this paper was one element of a larger research project that included qualitative interviews and a broader instrument that asked participants a series of survey questions. We describe the sequencing of the instrument here.

With all participants, professional enumerators from PSI started by reading a short introductory paragraph that described the study's aims as wanting to 'learn what citizens think about public services and the experiences they have with public officials'. Enumerators explained that participant responses would be treated confidentially, and that participants could withdrawal at any time. Study participants were then randomly assigned to one of six groups: *control*, *widespread corruption*, *religious*, *government success*, *local fight* or *taxes* (n=400 in each).

If assigned to the *widespread corruption*, *religious*, *government success*, *local fight* or *taxes* groups, questions about basic personal information (age, gender, education) were followed by the respective anti-corruption treatments (messages) set out in greater detail below. After exposure to the treatment (or not for those in the control group, which proceeded immediately to the next set of questions), participants were asked a series of survey questions to gauge their perceptions of corruption and anti-corruption efforts, political attitudes and attitudes towards paying taxes. After these survey questions, randomly selected participants – half in total (N = 1,188) – were asked to play a short game in which they would be able to win a small amount of money. This paper focuses on the influence of the treatments on the decision to 'pay a bribe' in the game. We describe the game in detail after we discuss the treatments tested.

3.4. Treatments

The **corruption is widespread** message sought to make the widespread nature of corruption in Nigeria especially salient. The treatment was tested because it has been advised that awareness-raising efforts call attention to the issue of corruption by publicising notable scandals (Jones, 2011). Also, as extensively discussed, it is expected that resignation to a corrupt system – or 'corruption fatigue' – is triggered when people believe that corruption is systemically practiced. The treatment paragraph 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.'

By describing the outcry against corruption from many different religious leaders, the **religious** treatment provides a message to test our H3. Nigeria is a very religious country, and so an anti-corruption message endorsed by religious leaders may be especially persuasive. To this end, there have been calls by some in anti-corruption policy circles for religion to be used in the fight against corruption (Marquette, 2012). The logic underpinning this argument is that religious leaders likely have a perceived higher moral authority than public-sector actors, and therefore their anti-corruption message may carry more influence (ibid.). The treatment paragraph 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 mentioned salient achievements made by the Lagos State Government in fighting and reducing corruption, and especially emphasised the leadership of Governor Fashola. This message allows for an additional test of H3. By emphasising strides made by Fashola's government, the message aims to persuade others to follow suit and resist corruption. The expectation of a positive outcome from a 'government effectiveness' message speaks directly to Peiffer and Alvarez's (2016) research, which found that perceived government effectiveness in anti-corruption is positively associated with a greater willingness to report corrupt behaviour. Moreover, previous work by Cheeseman and de Grammont (2017) has suggested that the emergence of an effective social contract in Lagos has rendered citizens especially responsive to government reforms. The 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 make a positive difference.'

The **local fight** treatment frames corruption as an issue which acutely impacts local communities and resources and argues that the fight against corruption should prioritise local, communal efforts first. It is therefore designed to allow us to test H2. Its wording was inspired by the treatment used in Peiffer and Walton's (2019) study in Papua New Guinea, where a similar message encouraged positive attitudes towards reporting corruption. Like the Papua New Guinea context, in Nigeria many people identify strongly with their local, often ethnic, communities. The message 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 allows for an additional test of H2, as it argues that corruption represents the theft of the taxes and fees that ordinary citizens pay on a daily basis – some of which may be invisible to them. Lagos represents a good location to test this hypothesis given that the efforts of the previous two state governments to expand the tax base have been high profile and have sensitised citizens to the relationship between paying taxes and the provision of public services. The message 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.'

3.5. Bribery game

The bribery game that respondents played was designed to test whether an individual was willing to pay a bribe, and whether this was influenced by the treatment they received. To do this we played a version of a dictator game, in which the participant knows that paying a bribe can improve the pay-out to them but will also reduce the pay-out to another individual. We chose this format because in real life when an individual pays a bribe to access a service or skip a queue (for example at a hospital) they do so at the expense of someone else (for example another patient who has to wait longer to be seen). As in our bribery game, the bribe payer most likely does not know who the affected person is, but they will often be aware that paying the bribe will have an impact on somebody else. The format of our game therefore represents a good approximation of situations that ordinary citizens regularly experience.

More specifically, at the start of the game each participant was told that they were playing with an anonymous second player somewhere else in the city, and that the game was overseen by a 'banker' who could unilaterally decide how much money the participant and the other player would take home. To start the game, the participant was told that both they and the other player had been given \$5 to play with and that they had only one decision to make: whether to offer the banker a bribe of \$1.50. The participant was told that the second player could not offer a bribe, and that if they decided to bribe the banker they would automatically be given the \$5 that had initially been intended for the other player. Consequently, the participant would leave with \$8.50, while the other player would leave the game with nothing. By contrast, the participant was told that if they chose not to pay a bribe, both they and the other player would walk away with the \$5 they were both originally allocated.

The game was played on a tablet so that participants could enter their decisions without enumerators being able to see whether they had paid a bribe or not. So that enumerators did not have to handle money – and to avoid the safety implications of doing this in participants' residences – all payments from the game were made via mobile phone transfer. At the end of the game, the participant was debriefed and told that in reality there had not been any other players – i.e. there was no second player and the banker was simply the tablet, which responded to their decision by calculating the correct pay-outs.

Participants were also told that there was no ‘right’ or ‘wrong’ way to play the game and that it was for each individual to decide for themselves. It was also made clear that the enumerators were not aware of or judging the decisions that people made, and that their participation had been very helpful in the research.

3.6. Estimation strategy

Pair-wise difference in means (DIM) tests are appropriate to evaluate the influence of messaging in an experiment like this, when an assumption can be made that the only difference between respondent groups is that they received different treatments, or did not receive a treatment at all (the control group). DIM tests were run on basic demographic indicators, and the results revealed that the mean level of poverty in the *local* and *control* groups were significantly higher than that of the *religious* group. There were no significant differences among the six groups (five treatment groups and control group) with respect to the rest of the demographic data collected (gender, age and education).⁴ Therefore, instead of using DIM tests, logistic regressions were conducted to determine whether and how exposure to the treatment messages influenced bribery payment in the game. These analyses allow us to control for the potential influence of poverty so that, for example, we can rule out that varying reactions to treatments across groups are not due to varying poverty levels. Logistic analyses are also appropriate to use, given that the decision to pay a bribe is binary.

⁴ Details of how these demographic variables were measured and the results of the DIMs appear in Appendix B.

4. Results

We ran two logistic regressions to test our three hypotheses. In the first logistic regression we examine what impact exposure to the five messages had on bribery payment in our game. This allows us to directly test H2 and H3, where the collective expectations are that exposure to the *religious*, *government success*, *local fight* and *taxes* messages would discourage bribery.

To test H1, on the other hand, we need to test for the influence of an interaction term (between perceptions of widespread corruption and exposure to the messages), which is what we do in our second analysis. In both analyses, the baseline group is the control group, and so all reported messaging effects articulate comparisons between those who were exposed to a message and those who were not.

As standard logistic regression coefficients are difficult to interpret, we also report predicted probability shifts and focus on them in our interpretation of the results. Predicted probability shifts have a straightforward and useful interpretation. They show the direction of association between exposure to the messages and the decision to pay a bribe in our game – a positive shift illustrates that exposure to a message increased the likelihood of an individual deciding to pay a bribe. Predicted probability shifts also indicate the substantive size of the effect that exposure to a message has on the decision to pay a bribe in our game. They specifically articulate the estimated extent to which exposure to each message changed the probability of paying a bribe. Therefore, these estimated shifts are comparable across messages; a larger estimated shift indicates that a message had a greater impact on the probability of bribe payment.

Table 1. Impact of messaging on bribery payment

	b	S.E.	P.V.	Δ P.P.
Treatment groups				
Widespread	0.51	0.20	0.013	0.13
Religious	0.41	0.20	0.046	0.10
Gov't success	0.32	0.20	0.114	0.08
Local fight	0.14	0.20	0.493	0.03
Taxes	-0.06	0.20	0.773	-0.02
Control				
Poverty	0.24	0.07	0.001	
Constant	-0.64	0.17	0.000	
N	1,188			
Pseudo R ²	0.01			
Likelihood ratio	23.27			
Prob>Chi ²	0.000			

Notes: Displayed across the first three columns are coefficients (b), standard errors (S.E.), and p-values (P.V.). 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.

Source: The authors.

4.1. Do leadership, community or tax framings discourage bribery?

The results displayed in Table 1 provide no support for H2 and H3. In fact, with respect to H3, the results show that instead of *persuading* people to reject corruption, exposure to the two messages that emphasise the positive endorsement and role of leaders in the fight against corruption – *religious* and *government success* – had the opposite expected impact, *encouraging* bribery. Specifically, exposure to the *religious* message is significantly and positively associated with paying a bribe, using a significance threshold of p-value <0.10. The estimated predicted probability shift shows that exposure to the *religious* message significantly increases the predicted probability of paying a bribe in the game by a sizeable 10 percentage points. While not statistically significant (using the p-value threshold of <0.10), it is also notable that exposure to the *government success* treatment is close to significant (p-value 0.114) and its estimated positive association suggests that exposure to this message also tends to encourage bribery.

The results also do not support H2. Instead of discouraging bribery, exposure to the *local fight* and *taxes* messages had no impact at all on the decision to pay a bribe. The results in Table 1 show that there is no statistically significant difference in the proclivity to bribe between those who were exposed to the *local fight* and *taxes* messages and those who were not shown any messages (the base-line *control* group).

Exposure to the *widespread* message, however, is significantly and positively associated with willingness to pay a bribe. Compared to those who were not shown a message, those in the *widespread* treatment group had a 13-percentage point greater probability of paying a bribe in our game. This finding speaks to the warnings of other studies that anti-corruption messaging can indeed backfire (Persson et al., 2013; Corbacho et al., 2016; Peiffer 2017, 2018) and demonstrates that anti-corruption strategies should not raise attention to the issue by publicising notable scandals or emphasising the scale of the problem (Jones, 2011).

This finding also provides circumstantial evidence to support the idea that messages about widespread and pervasive corruption may encourage so-called ‘corruption fatigue’, where, when overwhelmed with the problem of widespread corruption, people resign themselves to ‘accept reality’ and go with the corrupt grain (Peiffer and Alvarez, 2016). However, this finding alone does not fully confirm the expectations articulated in the literature around corruption as a collective-action problem (H1). We directly test this hypothesis next.

4.2. Do messages impact ‘pessimistic perceivers’ differently?

Drawing on insights from the literature on social norms and corruption as a collective-action problem, H1 expects that all anti-corruption messaging – regardless of differing content and framing – may work to encourage bribery amongst those who already think that corruption is widely practised in society. This is a conditional hypothesis. It suggests any messaging at all

may encourage bribery, conditional upon a pre-existing high level of perceived corruption. Statistically speaking, the inclusion of an interaction term can test a conditional hypothesis like this. Interaction terms articulate when conditions between two variables are met; in this case, we created five interaction terms, which articulate exposure to each message *and* whether or not a person had a pre-existing perception that corruption is very widely practised.

4.2.1. Identifying 'pessimistic perceivers'

To identify 'pessimistic perceivers' we constructed an index based on the responses to three questions in our survey. The first and most general question asked respondents how widespread corruption is in Nigeria; the second asked how common corruption is amongst public officials; and the third question gauged beliefs about whether most ordinary people who are known to participants pay bribes. The response options to these questions were based on either four- or five-point scales (the wording and specific response options can be found in Appendix C). We used principal component factor analysis to construct our index, extracting the common variance from responses to these three questions to calculate a single 'perception of corruption' score for each individual.⁵

It is important to be clear that perceptions of corruption were not influenced by exposure to the messages because our analyses treat perceptions of corruption as a variable which is exogenous to the experimental conditions. Separate regression analyses (reported in Appendix D) demonstrate that exposure to messaging did not shape perceptions of how widespread a problem corruption is. This is not surprising – other studies have similarly found that exposure to corruption messaging does not influence ideas about how widely practised corruption is in society (Chong et al., 2015; Peiffer, 2018). Because these perceptions are not influenced by messaging in our study, we are able to treat these perceptions as reflecting pre-existing beliefs about how pervasive corruption is in society.

4.2.2. Testing the interactions

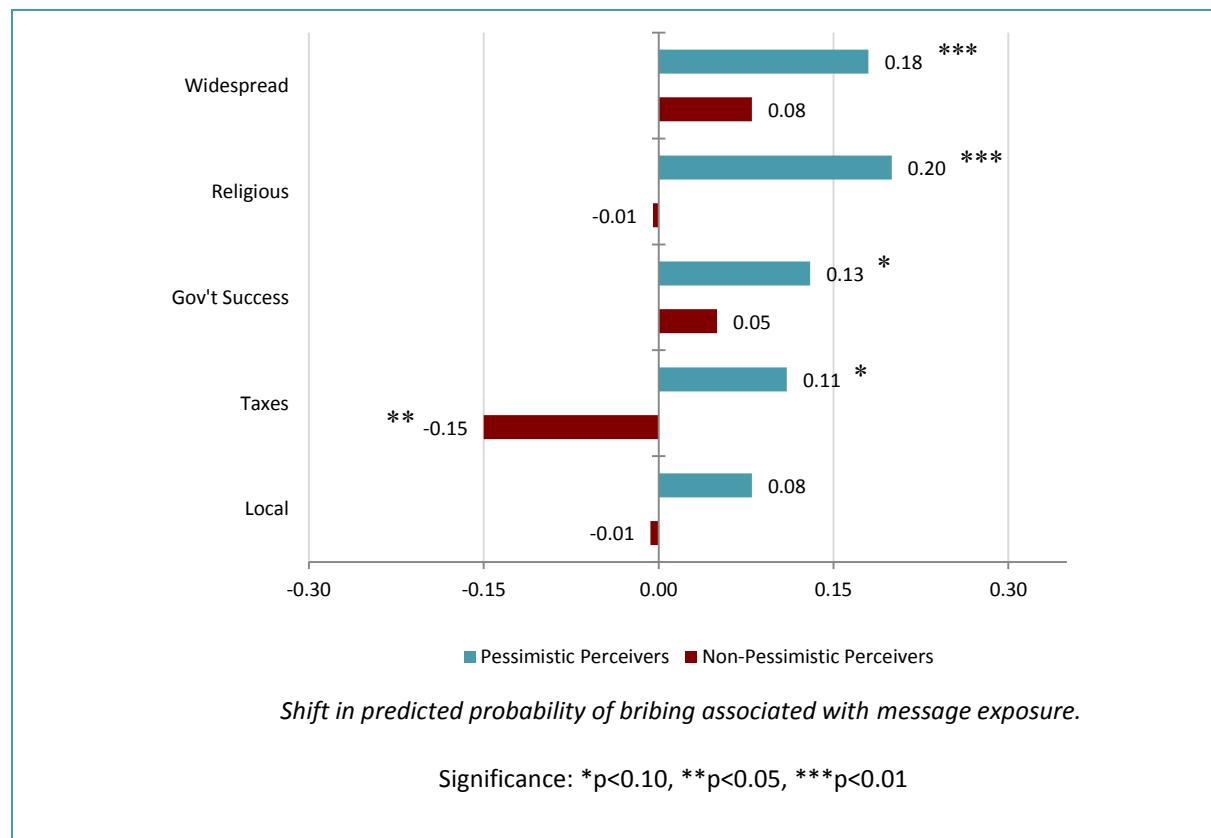
To test what impact the interaction between perceptions of widespread corruption and exposure to our treatment messages have on bribery, we estimated a new logistic regression. For this we used the regression model reported in Table 1 as a 'base model', and added to it the five interaction variables mentioned (exposure to each treatment x perceptions of widespread corruption). Estimating the impact that an interaction variable has on a binary decision – like the choice to pay a bribe in our game – within a logistic regression is not as straightforward as it is in a linear regression, when the dependent variable is continuous. For instance, statistical inferences cannot be made about the association of an interaction term and a dependent variable by the coefficient and statistical significance registered from a standard logistic regression output (Ai and Norton, 2003). This is because, for example, an

⁵ The factor analysis formed a single factor (measure) with an eigen value well over the 1.0 threshold (1.39). This factor index ranged from -4.11 to 1.12, with higher values indicating greater perceptions of corruption being widespread.

insignificant and positive coefficient reported in a regression output may hide the fact that the interaction term is significantly associated with the dependent variable at low levels of both constituent terms, but not at middle or higher levels.

Because of this, it is essential to unpack the effects of an interaction. For ease of interpretation in our analysis, we focus on two categories of respondents – those who scored highly on our index of perceived corruption (the ‘pessimistic perceivers’) and those who did not (the ‘non-pessimistic perceivers’).⁶ We report the estimated influence of messaging on the predicted probability of paying a bribe in our game for each of these groups. Our results (Figure 1) directly address the question: does messaging influence bribery patterns differently for ‘pessimistic perceivers’ compared to ‘non-pessimistic perceivers’?

Figure 1. Impact of messaging on bribery payment amongst ‘pessimistic perceivers’ and ‘non-pessimistic perceivers’



Note: significance = *p<0.10, **p<0.05, ***p<0.01.

Source: The authors.

⁶ We split the sample based on the position of respondents on our index. About the same percentage of people answered that corruption is extremely widespread in Nigeria (62%) and that corruption was very common amongst public officials (64%). So, using the zero position on the index, we divided the sample into a similar distribution between those who scored below zero on the factor index (43%) and those who scored higher than zero (57%).

Almost across the board we find consistent results that strongly support H1. For ‘pessimistic perceivers’, exposure to four of the five messages significantly encouraged bribery. Exposure to the fifth message (*local fight*), is positively associated with paying a bribe amongst ‘pessimistic perceivers’, though this association is not significant at the p-value <0.10 threshold. The messages also had a particularly strong substantive effect for this group. More specifically, amongst ‘pessimistic perceivers’, exposure to the *widespread* and *religious* messages increased the predicted probability of paying a bribe by about 20%, respectively, while exposure to the *government success* and *taxes* messages increased the predicted probability of paying a bribe by an average of 12%. Instead of discouraging corruption, almost every message tested did the opposite for ‘pessimistic perceivers’.

These results demonstrate that very different messages about (anti-)corruption can shape corrupt behaviour in a similar way and therefore support our hypothesis that exposure to any message about corruption increases willingness to engage in corrupt practices among ‘pessimistic perceivers’. This finding speaks directly to research on priming, which shows that by inadvertently priming an issue, a message may prompt unintended behavioural reactions. Our results also have important implications for policy interventions, because they show that awareness-raising efforts may encourage corruption amongst those who already believe that corruption is a widespread problem. The real-world impact of these processes is significant because around two-thirds of Nigerians believe that corruption is widespread, including among public officials. This means that traditional anti-corruption campaigns are likely to increase the willingness of the vast majority of the population to pay bribes.

For ‘non-pessimistic perceivers’ the story is starkly different; none of the messages are found to have encouraged bribery. It can be interpreted from the insignificant associations registered for these more optimistic citizens that the ‘non-pessimistic perceivers’ who were shown the *widespread*, *religious*, *government success* and *local fight* messages were just as likely to bribe as those who were not shown a message at all (*control group*). This is not especially encouraging from a policy perspective either; it shows that these messages were not influential, even among this ‘best case scenario’ group. However, these null results do demonstrate that, at the very least, anti-corruption messaging may not backfire for some in society.

Moreover, there is one important exception to this bleak story which may point the way to improving the impact of messaging in the future, namely the impact that the *taxes* message has on bribery amongst ‘non-pessimistic perceivers’. In this case – and this case only – we find that exposure to a message may discourage corrupt behaviour. Indeed, for ‘non-pessimistic perceivers’ exposure to the *taxes* message is associated with a sizeable 15-percentage point decrease in the probability of bribing. This finding is significant for a number of reasons. First, it supports the idea that messages that connect corruption to the personal financial position of individual citizens are more effective at reducing corruption, if only for this sub-group. Second, it provides indirect support for the broader argument that taxes and tax payment play a critical role in the evolution of a social contract in which citizens come to be more demanding of government and, in particular, less willing to tolerate the abuse and misuse of state resources (Cheeseman and de Grammont, 2017). Taken together, these implications suggest that building a more extensive direct tax base,

and emphasising the connection between corruption and tax payment to citizens, can help to build public support for a ‘clean’ government and reduce bribe payment.

This finding does not, however, lead to easy policy prescriptions, because the *taxes* message is only effective when targeted at the one-third of citizens who are not pessimistic about corruption. In turn, this raises the thorny question of how to target this specific group in a way that would not simultaneously increase the willingness of the majority of citizens to pay bribes.

5. Conclusion

This paper has advanced the literature on the merits and dangers of anti-corruption messaging in three main ways. First, our participants played a game in which they stood to make real money by paying a bribe, a methodology that offers a stronger – and more realistic – test of how individuals are likely to behave in the real world when their material interests are at stake, compared to standard survey questions. Second, we have tested the impact of a wider range of messages, including the effect of stressing the direct impact of corruption on individuals in terms of the taxes that they pay. Finally, we have demonstrated that the impact of messaging depends on whether individuals are already pessimistic about the pervasiveness of corruption or otherwise.

Taken together, our findings build upon the bleak warnings of prior studies in this area, but they also offer a glimmer of hope. In line with most of the existing literature, anti-corruption messages in our study either had no effect or actually made Lagosians more likely to pay a bribe. Our findings also support the hypothesis that anti-corruption messages can prime citizens to think more about corruption and emphasise the extent of the problem, and so encourage ‘corruption fatigue’. In turn, this reinforces collective-action problems and makes individuals more likely to go with the grain rather than to stand against the tide.

Perhaps most significantly, our findings demonstrate that the negative effect of anti-corruption messaging is far more powerful among those individuals who are ‘pessimistic perceivers’ – i.e. those who already believe that corruption is pervasive. This is important because it reveals that the problematic consequences of anti-corruption messages are not universal, which is something previous literature has not explored. Moreover, while most messages had no positive effect on ‘non-pessimists’, no message generated a statistically significant increase in the willingness of this sub-group to pay a bribe, and in one case – that of the taxation treatment – the message had the desired effect of reducing the probability of paying a bribe. This is important, because no other messaging conducted in this way to date has found that exposure to a message about corruption can *discourage* bribery among citizens.

In addition to advancing our understanding of the complexities involved in the fight against graft, our conclusions indicate the need for three very different strands of future research. The first is to better understand why the taxation message is the only one to be effective for ‘non-pessimists’, and to think through how it can be most effectively harnessed. It is possible that different messaging on a similar theme – for example emphasising the payment of local fees, or the impact on a citizen’s wealth in other ways – may be even more effective. Although such messages only had an impact for ‘non-pessimists’, this at least represents an opening that can be built on. Indeed, our finding on this point reinforces the indirect political benefits that can come from building a broader tax base, and demonstrates the value of using taxation to foster a stronger social contract and so encourage greater demands for accountable and transparent government.

The second strand of future research is to better understand who falls into the ‘pessimistic perceivers’ and ‘non-pessimistic perceivers’ categories and why. Further investigation of this issue is advisable both because the answers to these questions may shed light on how we can reduce the proportion of people who believe that corruption is endemic, and because it may provide insights as to the kinds of people who can be most effectively targeted with anti-corruption messaging.

The third strand of future research follows on from the second and is to investigate how anti-corruption messaging can be targeted at specific individuals. Most traditional anti-corruption campaigns delivered via television, newspaper and radio adverts do not target messages at the individual level – although they may deliberately direct them towards a certain demographic. Our study suggests that this is not enough – messages disseminated in this way are likely to do more harm than good because they will be seen by many ‘pessimistic perceivers’. However, social media and the advent of big data make it theoretically possible to target adverts much more narrowly and therefore, in this case, effectively. This raises the prospect that anti-corruption agencies could target specific messages – for example around taxation and corruption – directly at the ‘non-pessimistic perceivers’ on whom they will have the most positive effect.

Doing this would not completely transform public opinion of course, as ‘non-pessimistic perceivers’ only make up around one-third of the population. It could, however, begin to build public resistance to corrupt activities – especially when targeted messages are used in conjunction with anti-corruption interventions in other areas. At the very least, it will do no harm.

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Appendices

Appendix A: Demographic characteristics of the sample

Table A 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

Source: The authors.

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 B: Means tests of demographic characteristics

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

Treatment group	Female		Age		Education		Poverty	
	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.

Source: The authors.

Appendix C: Questions on perceptions of corruption levels

Table C 1. Wording and coding of questions on perceptions of corruption levels

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 to 5) Very common	4.44	0.95
Most bribe	'How strongly do you agree or disagree with the following statement: <i>Most people I know have paid a bribe. Do you...</i> '	1) Strongly disagree to 5) Strongly agree	3.97	1.04
Widespread	'How widespread would you say that corruption is in Nigeria?'	1) Not at all widespread to 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).

Source: The authors.

Appendix D: Regression analysis

Table D 1. Regression analysis demonstrating that perceptions 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	0.10	0.777	0.15	0.20	0.444
Religious	0.11	0.10	0.274	0.18	0.20	0.378
Gov't success	0.05	0.10	0.641	0.27	0.20	0.191
Local fight	-0.03	0.10	0.738	0.14	0.20	0.494
Taxes	0.03	0.10	0.791	0.23	0.20	0.256
Control						
Poverty	-0.03	0.04	0.407	-0.08	0.07	0.270
Constant	0.00	0.08	0.958	0.22	0.16	0.179
N	1142			1,188		
Prob > F	0.79					
R-Squared	0.003					
Prob> Chi2			0.76			
Pseudo R-Squared			0.002			

Source: The authors.

In model 1, the dependent variable is a perception of corruption index; as described in section 4.2, 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 footnote 6, 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 also presented.

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

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