

The effect of prescriptive norms and negative externalities on bribery decisions

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Abstract

Corruption is a welfare issue worldwide, but it is difficult to study because of its secret nature. We here did a lab economic experiment on bribery to study different compliance mechanisms through which people might be deterred from corruption. We focused on two elements of norms which people might respond to: information about the *function* of the norm (to avoid harm to third parties) and information about the prescriptive *content* of the norm (rights and duties). We show that information about both negative externalities of bribery and prescriptive norms are effective deterrents, and that bribe offers and acceptances are most discouraged with their synergic interaction. We find that participants followed prescriptive information, even when it was inefficient to do so, and implied choosing against their material self-interest (by rejecting a bribe) and not reciprocating bribe offers. Such compliance regardless of costs to the self and to others suggests a rule-based “mindless” process, like a normative heuristic. We conclude by highlighting the relevance of these findings as behavioral insights in the elaboration of strategies to combat corruption and norm transgressions.

Significance

We ran a bribery laboratory experiment in which participants made decisions involving real money with consequences for them and others. The experiment aimed at testing whether people may refrain from corruption because it simply goes against explicit norms and/or because it damages others' welfare (has negative externalities). We varied whether participants faced a fully-fledged normative environment (which included clearly defined rights and duties) or a bribery game devoid of explicit normative information. In addition, counter-normative behavior could infringe externalities upon others or be innocuous.

Whereas the separate presence of norms and externalities each caused a lessening of bribery, the strongest deterrence occurred when they acted together. This synergy may serve as a behavioral insight to inform policy.

Corruption is an institutional issue that imposes negative externalities on the welfare of societies worldwide and distorts the efficient allocation of resources (1-2). Monitoring and sanctions are obvious deterrents (3-4); however, their efficacy is limited by several country-wise or regional factors, such as the existence of corrupt monitors, politics with discretionary power, and a weak judicial system (5-6). Additionally, increases in transparency and, therefore, accountability may be countervailed by increased efforts to hide the corrupt deeds (7). Furthermore, options based on informal enforcement present other issues, such as the second-order free-rider problem –who bares the costs of punishment- (8), and the fact that diffuse punishment may lead to more (than less) anti-social behavior (e.g., 9).

Beyond external incentives, converging lines of evidence from cultural anthropology (10-12) and sociology (13) to social psychology (14-15), behavioral economics (16-18), and neuroscience (19-21) suggest that people follow norms at levels that could not be predicted from selfish instrumental reasons alone. Indeed, according to Norm Focus Theory, directing people's attention to prescriptive norms (socially approved behaviors) may increase compliance (14). This prediction has received empirical support in different domains, such as littering (22), distribution of monetary resources (23-24), and theft (25), to mention some examples. In line with this, a complementary, easily implementable, and cheaper strategy to combat corruption may involve the use of information that makes moral and normative appeals.

In the present study, we focused on two elements of norms which people might respond to: information about the *function* of the norm (to avoid negative externalities; 13, 26-27) and information about the *content* of the norm (an agent's normative status –e.g., whether she has a particular right- and actions prescribed/proscribed as a function of such

status –e.g., provision of a rightful benefit). From a theoretical perspective, the distinction may entail different compliance mechanisms. On the one hand, people may act as moral consequentialists, and thus, be motivated to weight the harm on others associated with each decision option (see e.g., 28-29). According to this, people may avoid norm transgressions because of being sensitive to the associated negative externalities. On the other hand, there is plenty of evidence showing that, in contrast to reasoned decisions, people may make choices based on heuristics or simple rules of thumb (30). Heuristics involve fast and frugal decisions, and could be contrasted against more effortful reasoned choices (31). Indeed, the heuristic approach has been extended to social decision making, including domains such as cooperation (32) and morality (33). From this perspective, people may comply with norms as if simply following “normative” heuristics or rules, without necessarily taking into account the expected consequences (34). We believe that practical consequences of discriminating between these compliance (function- vs. content-based) mechanisms may stimulate the elaboration of effective behavioral insights that can inform anti-corruption policies (see 35).

Despite its theoretical and practical relevance, the distinction between sensitivity to externalities and to detailed prescriptive information remains mostly unexplored in bribery experiments (see 36 for a review; see also 37-40; but see 41) as well as in experimental studies of dishonest behavior (42-44). Furthermore, bribery experiments focused on studying the effect of either externalities or norms on their own have not managed to succeed in clarifying these matters either. The conditions under which participants show sensitivity to negative externalities associated with bribery has not been clearly established in the experimental literature (41, 45). It is important to approach this issue because normative appeals may be less effective in certain contexts, such as those involving

economic transactions (46). In turn, the use of loaded wording to create a normative frame in bribery experiments has produced mixed results which did not allow systematic conclusions either (41, 47-49).

Our Study

The goal of the present study was to assess the effect of detailed prescriptive information and negative externalities as causes of norm compliance in a collusive bribery game. In this context, roles, rights, and duties were clearly stated, and negative externalities were suffered by a passive third party. With this goal in mind, we invited university students (N=202; 54% women; mean age \pm 1SD: 22.6 \pm 4 years old) from a wide range of academic disciplines to participate in a one-shot collusive bribery game involving monetary stakes in the PCs lab at IIESS CONICET Bahía Blanca, Argentina. The game was implemented using Ztree (50).

Participants were randomly assigned to one of two roles (citizen and public official –hereafter, the latter simply called “official”), and a local conservationist NGO experienced the inefficient negative externalities of corruption (i.e., a drastic decrease in the experimenters’ donation; see *SI*). Across between-subject treatments, we systematically varied whether there were negative externalities associated with the official’s decision of favoring the citizen, and whether participants were presented with explicit normative information. These instructions comprised information about the citizen’s normative status, that is, whether she acquired the right to receive a monetary benefit to be provided by the official; and information about the official’s duty, that is, whether she should provide the benefit given the citizen’s normative status (see *SI Appendix I* for an English version of the written instructions). Overall, we had five independent treatments: 1) condition

Right_Externality (n=42); 2) condition NoRight_Externality (n=44); 3) condition Right_NoExternality (n=38); 4) condition NoRight_NoExternality (n=38); and 5) condition NoNorm_Externality (n=40).

Figure 1 shows a schematic representation of the three stages involved in the one-shot bribery game used. In all conditions, the game began with the citizen having 120 sec to perform a real-effort task which consisted of counting the number of letters “a” in a two-paragraph text (stage 1). In conditions with normative information (Right and NoRight), we systematically varied the successful-performance threshold through which the citizen acquired her normative status (the right to a monetary benefit). In condition Right, the successful-performance threshold was very low so that almost all citizens acquired the right, in which case the officials’ explicit duty was to provide the benefit. In turn, in condition NoRight, the successful-performance threshold was very high so that almost all citizens did not acquire the right, in which case the officials’ explicit duty was not to provide the benefit (see *SI* for more details). In the NoNorm condition, the initial effort task had no consequences upon subsequent stages of the game (participants knew this) and, therefore, citizens did not have any normative status and officials no explicit duty. In stage 2, after being informed about their performance and corresponding normative status, citizens had to make a monetary transfer to their corresponding official (a randomly associated participant in the room). In the NoNorm condition, there was no information about any normative status and participants knew that performance information would only be provided at the end of the game. In the instructions and relevant screens for all conditions, we specified that the transfer in stage 2 represented an administrative fee of \$2 which was the minimal transfer admitted, but that they could transfer more if they wished (i.e., up to \$40 which was the amount of the benefit the citizen could obtain). The transfer

amount came from citizens' initial endowment of \$52. In stage 3, each official was informed about the normative status of the corresponding citizen (only in conditions with normative information) and the transfer amount received from her (in all conditions). The amount transferred was presented as comprising the \$2-administrative fee and a "surplus" (i.e., a bribe, if there was one). If there was no bribe, the official had a simple choice between providing or not providing the \$40-benefit to the citizen (the benefit amount did not come from the official's endowment -which was initially \$68- as if it came from public funds). If there was a bribe (i.e., a transfer > 2), the official could accept it, which automatically implied providing the \$40-benefit to the citizen (an accepted transfer of \$12 was the only case in which citizen and official ended with the same final payoff, i.e., \$80), or reject it and decide whether to provide the benefit or not (the official could not accept the bribe and not provide the benefit; see Figure 1).

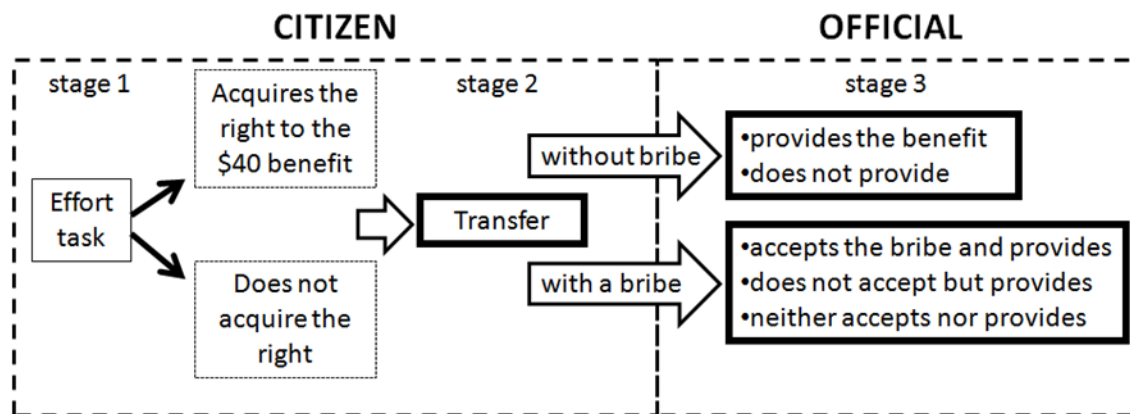


Figure 1. Representation of the three stages involved in the present one-shot collusive bribery game for conditions Right and NoRight.

Approximately a random half of participants in Right and NoRight conditions were assigned to the Externality condition ($n=86$), whereas the other half were assigned to the

NoExternality condition (n=76). In turn, the NoNorm condition (n=40) did involve externalities with the aim of having a treatment similar to other bribery games in the literature (41, 48). In all conditions, externalities were implemented as a drastic and inefficient decrease (from \$50 to \$5, i.e., a \$45-loss compared to the citizen's \$40-gain for receiving the benefit) in the experimenters' donation to a local conservationist NGO. For each pair of participants, a negative externality was caused by the official's decision in the game: in conditions with normative information, externalities were caused by the official's transgression of her duty, which was to provide the \$40-benefit if and only if the citizen had acquired the right to it (this was informed both in written instructions and relevant screens for both roles). In the NoNorm condition, externalities were simply caused by the official's provision of the benefit to the citizen (this implementation of externalities in the NoNorm condition was similar to other bribery games in the literature; 41, 45, 48). In addition, all conditions had the same loaded wording in reference to roles as "citizen" and "official", and to the bribe as a "surplus", which was also similar to loaded frames implemented in other bribery games (41, 47-48). However, the NoNorm condition had no information about the citizen's normative status or the official's duty, hence served as baseline control (representative of other loaded bribery games in the literature) against which to assess whether more specific and detailed normative information could affect decisions.

When the game ended, participants completed several post-decision questionnaires, which also included providing socio-demographic information (see *SI Appendix II*). Finally, participants were sequentially called by their PC-terminal number, and each was privately handed a closed envelop with his or her earnings in cash inside.

Behavioral predictions

In the present study, we attempted to disentangle whether people respond to a norm because of its function and consequences (i.e., avoiding negative externalities), or because of its content, namely the mere presence of prescriptive information (rights and duties). Some predictions derived from these two hypotheses contrast with each other, and are also in contrast with predictions derived from selfish rationality as we explain below.

Selfish rationality: since the provision of the benefit was costless to the official, and accepting any bribe automatically implied its provision, the citizen had an incentive to send the minimal bribe possible (i.e., \$1). If the official was selfishly rational, then she would accept any bribe > 0 , and thus provide the benefit. This hypothesis did not predict any difference among conditions.

Moral consequentialism: this hypothesis could take different flavors depending on whether the citizen and the official were sensitive to causing negative externalities, and/or the citizen believed the official was sensitive to causing externalities. Through preferences or beliefs, this hypothesis predicts that the proportion of bribe offers and bribe acceptances (or more generally, benefit provisions) should be lower in conditions where the provision of the benefit led to negative externalities (i.e., less bribing in conditions NoRight_Externality and NoNorm_Externality than in the remaining conditions).

Normative heuristic: Contrary to consequentialist models which emphasize the attunement of decisions to the consequences of each choice, the heuristic approach assumes that participants rely on ‘fast and frugal’ rules that guide their behavior in a more or less unreflective way (30, 32). If this is the case and, therefore, citizens and officials respond to norms as if they were rules, or citizens expect officials to respond in such a way, then the proportion of bribe offers and bribe acceptances (or more generally, benefit provisions)

should be lower in conditions where providing the benefit was counter-normative (i.e., less bribing in conditions NoRight_Externality and NoRight_NoExternality than in the remaining conditions).

Double criterion: Finally, it is possible that norms and consequences interact in their effect on people's decisions (e.g., 41, 51). This could be so because the presence of negative externalities could be more or less tolerated depending on the norms in place. Indeed, negative externalities are part of the accepted consequences in certain contexts, such as it is the case, for example, with sports competitions or other sum-zero situations (51). In the context of corruption, the probability of refraining from it may increase when the possibility of causing negative externalities is associated with an explicit relevant norm against it (41, 52). On the contrary, the absence of explicit norms may allow self-serving interpretations of what is appropriate in a given context (43). If we apply this double criterion hypothesis to the present game, we predict that the proportion of bribe offers and bribe acceptances (or more generally, benefit provisions) should be the lowest in condition NoRight_Externality.

Results

Figure 2 shows the proportion of bribes offered by citizens as a function of condition. The percentage of bribe offers was lower in condition NoRight_Externality (45%) than in condition NoRight_NoExternality (80%) (Fisher's exact test, $P < 0.05$), showing an effect of negative externalities on citizens' decisions. In addition, 85% of citizens in treatment NoNorm_Externality offered bribes which, against the 45% of bribes in treatment NoRight_Externality (Fisher's exact test, $P < 0.05$), shows citizens' sensitivity to normative information. In short, citizens behaved as predicted by the double criterion

hypothesis in the sense that they most strongly refrained from offering bribes when citizens had not acquired the right to the benefit and obtaining the benefit was associated with negative externalities.

The reported effects of prescriptive information and externalities on citizens' decisions could mean that citizens themselves were sensitive to those normative elements and/or that they expected officials to be sensitivity to them. The information provided by citizens in the post-decision questionnaires helps disentangling these possibilities. A probit regression of bribe offers as dependent variable showed a significant predictive effect of citizens' rating of the appropriateness of offering a bribe in the game ($b=0.25$; $P=0.09$). In turn, citizens' estimation of the percentage of officials who would accept a bribe turned out not to be a significant predictor of bribe offers ($b=0.002$; $P=0.64$). This suggests that variation in citizens' own moral sensitivity to bribing may have underlied variation in bribe offers.

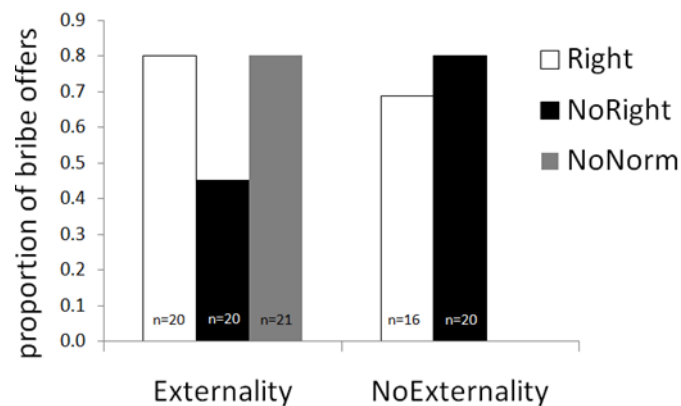


Figure 2. Proportion of bribe offers as a function of experimental condition.

Also worth noting is that citizens in Right conditions (white bars in Figure 2) offered bribes in 75% of cases on average, which is not significantly different from the highest bribery frequency in the experiment (80%; see Figure 2) (Fisher's exact test, $P >$

0.1). Bribes in Right conditions could have been motivated by citizens' concern for externalities (caused by the official not providing the benefit in these cases), which is consistent with the slightly, though not significant, higher proportion of bribes in condition Right_Externality (80%) than in condition Right_NoExternality (69%; Fisher's exact test, $P > 0.1$). Non-exclusive alternatives involve the notion of reciprocity. On one hand, bribery could be an instance of citizens' intention to secure their rightful benefit by appealing to the official's positive reciprocity after receiving the bribe. On the other hand, if the citizen thought that the official was expecting a bribe, bribing could be intended not to disappoint the official's expectations and avoid triggering his negative reciprocity. The citizen's expectations of reciprocity from the official could parallel beliefs triggered in Ultimatum Games (e.g., 49, 53), or even harassment bribe contexts (49, 54).

In terms of transfer amounts sent by citizens to their corresponding officials, bribe amounts (transfers > \$2) did not systematically vary among conditions (Kruskal Wallis ANOVA by ranks, $\chi^2=2.73$, $df=4$, $P=0.60$). Notwithstanding, citizens' scores in the Machiavellianism scale (Cronbach's $\alpha=0.76$) significantly and positively predicted the amount transferred ($\beta=3.84$, $P=0.016$), meaning that more manipulative individuals were prone to offer larger bribes. Moreover, alike in other bribery experiments (55-56), women were less likely to offer bribes ($b=-1.38$, $P<0.001$), whereas bribe amounts were unrelated to gender ($b=-0.05$, $P=0.97$).

Figure 3 shows the proportion of officials who provided the \$40 benefit to the citizen as a function of condition. Similarly to citizens, officials were affected by both normative information and the possibility of externalities. The overall majority of officials granted the benefit when it was deserved (95% in conditions Right_Externality and

Right_NoExternality, together), and denied it when it was not (21% granted benefits in conditions NoRight_Externality and NoRight_NoExternality, together; Right vs. NoRight, Fisher's exact test, $P < 0.001$). This normative pattern occurred even when officials were offered bribes: 96% vs. 23% of benefits granted when officials were bribed in Right vs. NoRight conditions, respectively (Fisher's exact test, $P < 0.001$). This meant that officials rejected bribes in 77% of occasions in NoRight conditions (89% in condition NoRight_Externality and 71% in condition NoRight_NoExternality; Fisher's exact test, $P > 0.1$). Also in support of the effectiveness of normative information, only 11% of officials provided the benefit after a bribe attempt in condition NoRight_Externality (1 out of 9), whereas bribed officials provided benefits in 37.5% of occasions (6 out of 16) when there was no explicit norm but still benefit provisions caused inefficient externalities.

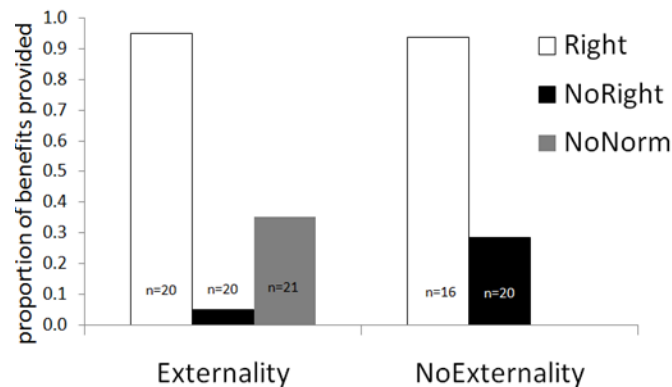


Figure 3. Proportion of officials who provided the \$40-benefit to the citizen as a function of condition.

Despite the overall normative behavior of officials, bribe offers did increase the probability of benefit provisions ($b=0.85$, $P=0.05$; see Figure S1 in *SI*), even after controlling for the presence of normative information, externalities, and the acquisition of

the right to the benefit. In addition to their sensitivity to the explicit duty, officials were less likely to grant the benefit when doing so caused an externality than when it did not (5% vs. 29% of granted benefits in conditions NoRight_Externality vs. NoRight_NoExternality, respectively; Fisher's exact test, $P=0.05$; see the black bars in Figure 3; this result is similar, though turns not significant, when one considers only benefits provided after bribe offers: 11% vs. 29% of granted benefits in conditions NoRight_Externality vs. NoRight_NoExternality, respectively; Fisher's exact test, $P=0.29$). All in all, officials generally behaved according to the normative heuristic hypothesis, providing the benefit when deserved and refusing its provision when undeserved. Nevertheless, there is also evidence that officials were also sensitive to negative externalities. As it occurred with citizens, the strongest anti-corruption result was found when both a negative externality and an explicit prescriptive norm were in place (i.e., in condition NoRight_Externality; see Figure 3).

Discussion

Bribery experiments can have a clear practical goal which is finding ways to fight corruption (36). In this sense, it seems important to experimentally study the underlying mechanisms of norm compliance by which both citizens and public officials are deterred from corrupt exchanges, such as bribery. In the present study, we found evidence supporting two different norm-compliance mechanisms, which, in turn, had synergies.

On the one hand, we evaluated whether participants' choices revealed a moral consequentialist motivation to avoid harm to third parties (29). When there were negative externalities associated with the provision of the benefit, citizens were less prone to offer bribes and officials were less likely to provide the benefit (i.e., lower bribery in condition

NoRight_Externality than in condition NoRight_NoExternality; see Figures 2 and 3, and also see *SI* for further discussion of citizens' bribe offers in condition NoNorm). This overall pattern of benefit provisions across conditions was similar, even if we only consider officials' behavior after bribe attempts. In short, the possibility of causing material harm inhibited bribery in the present protocol. This is consistent with results from Barr and Serra (41) who found that high (relative to low) negative externalities reduced bribe offers in a one-shot bribery game with a loaded frame similar to the current condition NoNorm_Externality. This effect of negative externalities was not present when their game was framed in abstract terms, which coincides with results from Abbink et al. (47) who did not find any effect of negative externalities on participants' decisions in a collusive bribery game with repeated-rounds framed in abstract terms. Together, results from these studies suggest increased sensitivity to externalities in the presence of consistent prescriptive norms. We further discuss the effect of normative information below.

Alternatively, participants' consequentialism could be directed at minimizing payoff differences between citizen and official (i.e., an Inequity Averse motivation, IA hereafter, e.g., 28). With present payoffs, equality between partners could only result from the official's acceptance of a \$12-transfer (\$10-bribe) and the consequently \$40-benefit provision to the citizen (which led citizen and official, each, to end with \$80). According to this reasoning, IA does not predict differences among conditions. However, if citizens expected a higher proportion of benefit provisions in Right than in NoRight conditions (i.e., an expectation of normative compliance), then IA would predict a higher percentage of bribe offers in the former than the latter conditions (indeed, citizens showed higher expectations of bribe acceptances in Right than in NoRight conditions; see *SI*). This prediction derived from IA was, nonetheless, only corroborated in conditions with

externalities, whereas there was no statistical difference in the percentage of bribe offers between conditions Right_NoExternality and NoRight_NoExternality. Moreover, officials' provision of benefits was drastically higher in condition Right_NoExternality than in condition NoRight_NoExternality, which would not be anticipated by IA at all. Even if participants not only strived to reduce inequality between partners but also in relationship with the NGO (i.e., in conditions with negative externalities), IA still predicts bribery under sensible values for the "guilt" parameter (see *SI*). Also important for present purposes, IA does not predict the inhibitory effect of normative information on bribery as observed when comparing conditions NoRight_Externality and NoNorm_Externality (which we discuss next).

On the other hand, we found supporting evidence for a compliance mechanism based on the mere following of what the prescriptive norm commands. More specifically, participants in both roles were sensitive to the presence of information about the normative status of the citizen and the corresponding official's duty. For citizens, this was evident only in conditions with externalities, where the percentage of bribes offered was much lower in condition NoRight relative to conditions Right and NoNorm (see the three bars in the left-hand side of Figure 2). The effect of normative information was even more impressive for officials, who tended to follow the norm of not providing the benefit to citizens who did not acquire the right even when there were no externalities and they were offered bribes. This result shows officials' conformity to norms even when it was inefficient to do so (providing the benefit introduced \$40 to the game), and implied choosing against their material self-interest (by rejecting a bribe), and not reciprocating bribe offers. Such compliance regardless of costs to the self and to others suggests a rule-

based “mindless” process, like a normative heuristic (32-34; also see *SI* for arguments against an interpretation based on an experimenter demand effect).

Normative-heuristic-like responses seem consistent with Norm Focus Theory, which posits that cognitively activating normative information increases the probability of norm consistent behaviors (22). Instead, the effect of explicit norms could be related to conditions of greater accountability. Arguably, introducing an explicit normative demand may limit the expression of ethical blindness (57) and self-serving biases (43). Whether it is a matter of mere availability of normative information, as Normative Focus Theory suggests, or norm compliance requires a more cynical explanation could be tested by varying whether the normative information provided is public or private, or by changing people’s feelings of being seen (58).

These two compliance mechanisms, namely weighing consequences and following normative rules, may indeed present synergies. This can be seen in the fact that the lowest level of bribe offers and benefit provisions occurred in the condition NoRight_Externality. In this condition, information about norms and externalities converged to deter bribery. The fact that sensitivity to externalities was increased with the presence of normative information shows some parallel with results from Barr and Serra (41). These authors tested an abstract versus a loaded frame in a one-shot collusive bribery game and found that bribery was less frequent in the latter than the former condition, though only for participants in the role of citizens (not for officials) and when externalities were high. Taking Barr and Serra’s (41) study and ours together, one could see the effect of increasing the normative information provided, from an abstract game, through a game framed with words related to bribery, to a game with explicit information about normative status and duties: more normative information leads to less bribery. Indeed, this normative

interpretation is consistent with the asymmetric effect of normative information as a function of participants' roles found in the present experiment. That is, citizens were only deterred from offering bribes when normative information converged with the existence of externalities (there was no difference in bribe offers between Right and NoRight conditions when there were no externalities). For officials, instead, normative information deterred the provision of underserved benefits even in the absence of externalities. This asymmetry between roles could be linked to the fact that normative information directly prescribed actions for officials ("your duty is to..."), whereas the content of the norm was relatively mute in terms of whether citizens should or should not offer bribes. This suggests that norms directly prescribing behavior may have a higher chance of affecting decisions. All together, present results point toward a behavioral insight to apply in the context of corruption deterrence, namely elaborating strategies that highlight both prescriptive actions and negative externalities caused by the transgression of norms. Normative information, through a heuristic-like process, may make some decision options more salient while precluding counter-normative options to come to mind (59). In turn, as mentioned in a previous paragraph, explicit norms may increase a sense of accountability (58).

Regarding the influence of normative information on corruption, we believe that the present protocol and results introduce a new effective dimension to the experimental literature on bribery. In most bribery experiments, researchers do not give participants explicit normative information. At most, authors have relied on loaded frames, sanctions, and/or the presence of externalities to implicitly signal norms, for example (41, 45, 48, 60; but see 49 for an exception). We actually had a control condition that resembled some protocols in the literature (i.e., the NoNorm_Externality condition) in which, as in other bribery experiments, we used a loaded frame and the provision of the benefit by the official

caused a negative externality. The aim of the externality is to represent a situation in which the provision of the benefit is not rightfully granted. Notice, however, that participants in the NoNorm_Externality condition behaved differently from participants in condition NoRight_Externality which explicitly represented the case where citizens did not acquire the right to the benefit. More specifically, citizens tended to offer more bribes and officials tended to grant more benefits when there was no explicit normative information (i.e., in the NoNorm_Externality condition relative to the NoRight_Externality condition). This result suggests that the mere presence of externalities associated with a decision option does not unequivocally represent an unrightful option to participants, even in a framed scenario.

Last but not least, to our knowledge, the present protocol is the first to show an effect of prescriptive norms on bribery in an experimental game. Another study reported failures to find an effect of estimation of prescriptive norms on decisions in collusive bribery games (39). Despite this study using loaded wording to describe the game, it is possible that different participants interpreted differently whether the citizen's benefit was rightful, given that the citizen's normative status was not explicitly provided. Getting rid of this ambiguity in the present protocol could explain why prescriptive norms did affect decisions in the experiment reported here.

All in all, the present contribution to the experimental bribery literature can be summarized in the following three points: 1. the mere presence of negative externalities may not be enough to trigger full normative expectations; 2. nonetheless, reminders of the negative externalities associated with corruption may deter people from it; and 3. explicit normative information may present synergies with information about negative externalities in inhibiting bribery. These conclusions could be taken as preliminary behavioral insights to nudge people away from corruption.

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