

Corruption Tolerance as a Process of Moral, Social, and Political
Cognition:
Evidence from Latin America

Joseph Pozsgai-Alvarez¹

¹Program-Specific Assistant Professor

Center for Southeast Asian Studies, Kyoto University

46 Shimoadachi-cho, Yoshida, Sakyo-ku, Kyoto 606-8501, Japan.

Tel: +81-75-753-9619 / E-mail: jpozsgai@dailycorruption.info

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Abstract. While corruption is commonly understood in behavioral terms, the dominance of political and economic approaches has hindered the integration of relevant psychological insights into the (anti-)corruption mainstream, causing a rift between the examination of social determinants and their assessment within a process of individual decision-making. The present study offers a model that combines moral, social, and political factors to explore the cognitive processes behind corruption tolerance, operationalized here as attitudinal, intended, and behavioral responses to a bribery event. Using data from 1,651 survey respondents across Latin America, it empirically tests the impact of key variables over the formation of individual attitude, intention, and behavior, taking into account the conditions and situations in which it arises. The results show that the decision to engage in petty bribery responds significantly and consistently to the individual's tendency toward moral disengagement, and the centrality of their moral identity.

1 Introduction

Over the past decade, several leading scholars across the globe have rightly expressed their concern about the regular failure of anti-corruption interventions (Johnston, 2011; Persson et al., 2013; Heywood, 2018). Regardless of the contemporary availability of a large array of policy tools—such as asset and interest declarations, access to information laws, transparency portals, specialized anti-corruption agencies, whistleblowing mechanisms, etc.—and the continuous increase in national budgets and donor funds with which to tackle malfeasance, cases of uncontroversial success remain extraordinarily limited. Still, the appeal of calls for political will and technical solutions remains a common feature of the field, neglecting the fact that corruption

is a phenomenon that is not yet entirely understood and that several key dimensions required to properly address it have not yet been identified or continue under dispute. Thus, policy intervention suffers from piecemeal scientific work which emphasizes single constructs while neglecting the way they connect to each other and how they collectively affect outcomes.

This study addresses the above issue by offering an examination into individual decision-making through the concept of ‘corruption tolerance’, defined as an individual’s moral approval of, or willing participation in, a corrupt¹ event. More precisely, in recognizing corruption as an umbrella concept rather than an empirically specific phenomenon, it focuses on tolerance of bribery.² This tolerance is modeled as a function of psychological responses to environmental conditions, derived largely from advances in social and cognitive psychology, but accounting for political, economic and social influences relevant to the study of corruption tolerance. In particular, this study considers the relevance of concepts which are often held to be responsible for a low corruption equilibrium—generalized trust, civic consciousness and economic welfare.

The results show that the manifestation of corruption tolerance—operationalized here as engagement in, and permissiveness of, bribery—stems from a sense of personal control and the degree of moral skills held. Moreover, that tolerance is traced back to patterns of sociopolitical beliefs and attitudes toward *specific types* of bribery; in other words, it varies in response to different conditions, supporting an examination of this phenomenon as closely linked to specific contexts rather than as a general and unqualified phenomenon.

¹ For the purpose of this study, corruption is understood as any morally deviant action resulting from the abuse of entrusted power for private gain; the immorality of the act, in turn, need not transgress any formal or informal practices. Therefore, an individual’s moral approval of, or willing participation in, a corrupt event will be considered to represent tolerance of corruption regardless of the extent of corruption and the impunity enjoyed by wrongdoers in a given context.

² While an exclusive focus on bribery—to the detriment of information regarding other forms of corruption such as embezzlement, nepotism, abuse of office, and others—limits the scope of applicability of this study, it follows current voices in the field who stress the need to transition away from general discussions of corruption and toward actionable evidence on specific types (Heywood, 2017; Ang, 2020).

The rest of the paper is structured as follows: Section 2 explores the issue of corruption tolerance through the perspective of ethical decision-making, reviewing the relevant literature on moral cognition and behavioral prediction. Section 3 then introduces a ‘cognitive model of corruption tolerance,’ based largely on the theory of planned behavior and integrating key moral and sociopolitical variables. The model is tested in Section 4 through multivariate ordered logistic regression, and the correlations are discussed through each stage of the cognitive process. Section 5 concludes by summarizing the key findings.

2 The application of cognitive and behavioral models to corruption tolerance

As an analytical concept, the study of corruption tolerance reaches beyond the empirical examination of corrupt behavior and includes the individual’s attitude toward the situation. Therefore, while the question of corruption would be exhausted by addressing a person’s efforts to engage and profit from the act, corruption tolerance raises additional questions regarding their frame of mind, often regardless of the actual manifestation of efforts of any sort, thus emphasizing the inclinations and willingness which are part of the common understanding of ‘tolerance’. Moreover, the development and expression of an attitude assumes an information processing capacity from the part of the individual, who is expected to accurately perceive the situation—in our case, one with or without potential for corruption. Rather than locating corruption tolerance within the scope of a single indicator, then, corruption tolerance is better understood as a process composed of different elements or steps, beginning with a set of conditions, their perception, the development or activation of attitudes, and a final behavioral response. Thus, individual corruption tolerance may be identified by the fracturing of this chain at any of the stages of information processing, attitudinal formation, or behavioral manifestation,

caused by a potential myriad of factors that may interrupt a process that would otherwise conclude with the action of rejecting corruption.

Much has been written about the tolerance of corruption manifested by citizens in many parts of the world, most of which relate to weaknesses in electoral accountability (see De Sousa and Moriconi, 2013; Carreras and Vera, 2018; Vera, 2019). While the historical evolution of ideas such as citizenship, professionalism, and the division between public and private spheres has also meant the steady decline of corruption tolerance in general, it is in our capacity to react in different ways to common environmental influences that we are able to speak of corruption in any meaningful way. The role of decision-making in the study of corruption tolerance becomes evident when we consider that condemnation of an unethical action requires, at a minimum, for that action to have been willingly exercised (e.g., a person coerced into surrendering a bribe cannot be said to have 'tolerated' it). In effect, the process behind a corrupt act, more than the act itself, becomes fundamental to our understanding of corruption tolerance. Concerning a specific type of corruption tolerance identified in the literature, i.e. "tolerance as citizen's support for corrupt politicians" (Pozsgai-Alvarez, 2014, 186), Canache and Allison (2005) argue that responses to political corruption require people to accurately perceive corruption, adjust their opinions accordingly, and hold the leader accountable. This modest description of the behavioral process behind corruption (in-)tolerance has much in common with Rest's (1999) four-component model of ethical decision-making, in which the individual must, in order: (1) perceive an ethical issue, (2) judge the morality of potential courses of action, (3) establish intent, and (4) execute the chosen action. Building on his work, later scholarship has made meaningful progress in identifying the multiple steps and elements involved in ethical behavior, reflected already in Jones' (1991, 370) "Synthesis of Ethical Decision-Making Models," which includes environmental factors (society, culture, economy, and organization); characteristics of the moral issue; internal factors as established earlier in Rest's work; and other personal and contextual factors (significant others, individual and situational moderators, and opportunity). Wittmer (2005) followed by

defining the stages that take place after the emergence of an ethical situation—and which therefore are affected by it. To him, ethical decision-making is a function of ethical processes, individual attributes and environmental factors. Simplified versions of these models have also found application to the study of corruption tolerance: For example, Ashforth and Anand (2003) propose three processes through which corruption is normalized in an organization (institutionalization, rationalization, and socialization)—a matter which Voliotis (2017) also explores by discriminating between organizational and extra-organizational pressure. Additionally, Smith-Crowe and Warren (2014) explore the role of social pressure and moral emotions in the spread of corruption tolerance within an organization.

Looking more closely at those models, we find the internal factors responsible for the construction of our moral self. By and large, however, the most prominent variables featured in ethical decision-making research—those dealing with morality—are commonly absent in studies of corruption tolerance (Marquette, 2012). Moral development, understood as the universal sequence of stages in an individual's cognitive structures for moral judgment (Ntayi et al., 2013), is a good example of this deficit (for exceptions, see Alpaslan et al., 2008, Giurge et al., 2019, and Trevino and Youngblood, 1990). Similarly crucial concepts in the field of ethics, but largely underused in relation to corruption tolerance, are moral awareness, i.e., the individual's capacity to identify the moral content or nature of a situation (Reynolds, 2006), and the centrality of moral identity, i.e., the cognitive accessibility of an individual's moral self-conception (Aquino et al., 2009). Among the few studies that have adopted them, DeCelles et al. (2012) find a significant impact of both constructs as intermediate factors in the effect of power over corrupt behavior. In relation to moral awareness, it is possible to suggest that the neglect has been somehow ameliorated by its transformation and adoption as a corruption-related variable: 'corruption awareness,' or the individual's capacity to recognize corruption in a given circumstance (Sööt and Rootalu, 2012; Bowman and Gilligan, 2007). By comparison, the inclusion of moral identity as a measurable factor behind corruption tolerance can be said to have fared much worse; however,

in its place, a related concept has attracted much attention from corruption scholars, becoming the most common moral construct included in the study of malfeasance: moral disengagement, or an individual's predisposition to reinterpreting their own actions in a way which downplays those actions' moral content and ethical consequences (Moore, 2008; Barsky, 2011; Moore et al., 2012).

A tentative explanation for the preference for moral disengagement over identity is found in Ashforth and Anand (2003, 20): "Because corruption creates at least a tacit threat to the group's moral identity, the group is motivated to find examples of others who are even more corrupt and thereby demonstrate that 'we're not so bad'." In other words, disengagement may be understood as demonstrating a weak moral identity, therefore making the latter somewhat redundant. Regardless of the ultimate reason for the evident preference, the capacity to explain away corrupt behavior by appealing to logical or emotional reasons has invited profuse attention. Liu and Loi (2012, 42) hypothesize that "subordinates who frequently exercise moral disengagement will engage in more workplace deviance," a matter which Moore et al. (2012) successfully test across five different samples, finding, in moral disengagement, the highest explanatory power of organizational misconduct among the factors assessed. The statistical power of this relationship is also reported by Barsky (2011), particularly through the mechanism of 'justification' over that of 'responsibility displacement'. In more narrative terms, Marquette (2012) also pointed out how common it is for individuals in highly corrupt societies to justify their own malfeasance while still expressing condemnation of corruption, thus providing an argument for the distinction between moral disengagement and awareness.

As much as the analysis of corrupt tolerance borrows from the more general study of ethical decision-making, any review of this kind would be incomplete without recognizing the role played by the theory of planned behavior (TPB; Ajzen, 1985). Itself an expansion of the 'theory of reasoned action' first developed by Ajzen and Fishbein (1980), the TPB proposes that behavior can best be predicted by the intention to perform it, which, in turn, is a function of the individual's

attitude and subjective norms toward engaging in that behavior, and the individual's perceived behavioral control (PBC). At the furthest end, these three factors result from antecedent beliefs. Although not overwhelmingly, some authors have employed the TPB framework to the study of corruption tolerance. In what is now a classic (and possibly the earliest) example, Powpaka (2002) explicitly adopts Ajzen's framework to model bribery behavior in an experimental design. Powpaka's results indicate that, as expected, the intention to bribe is positively influenced by an individual's attitude and subjective norm, and negatively influenced by the individual's perceived control over the situation. Later, Wated and Sanchez (2005) employed an adapted version of the TPB to analyze managerial tolerance of corruption in Ecuador, finding a strong effect of attitude over a manager's intention to discipline corrupt employees. Rabl (2008) and Rabl and Kühlmann (2008) also find strong predictive power in all the main elements of the TPB, adding to it a 'desire' component preceding intention and, thus, suggesting the potential for a modified version of Ajzen's model. The same year, Kulik et al. (2008) adopted the TPB to advance a series of propositions regarding the spread of unethical organizational behavior among employees at Enron; and Sanchez et al. (2008) revisited the model for equally theoretical purposes in connection to corruption tolerance in Latin America. More recently, the TPB has been used as a flexible theoretical framework over which previously neglected connections could be modeled (Gorsira et al., 2018; Gago-Rodríguez et al., 2018).

Following the two groups of decision-making research discussed above, the next section introduces a model for the analysis of corruption tolerance among citizens, operationalized hereinafter as engagement in, and permissiveness of, bribery.

3 A cognitive model of corruption tolerance

To identify the potential determinants of corruption tolerance, this paper proposes an integrated model which, first, takes the basic structure of the TPB—i.e., behavior, intention, attitude,

subjective norms, perceived behavioral control (PBC), and beliefs—as a blueprint through which to chart the decision-making process. On these foundations, it then adopts three key elements commonly associated with ethical decision-making—i.e., moral development, moral disengagement, and the centrality of moral identity—and adds three more variables commonly discussed in the corruption literature—i.e., political trust (Wroe et al., 2013; Morris and Klesner, 2010), generalized trust (Uslaner, 2004; Kubbe, 2014), and perceived welfare (Yan and Wen, 2020; Li et al., 2015)—to assess the way they influence individuals at every stage of the decision-making process. To assess the role of attitudinal beliefs, the model also considers measurements of civic consciousness and tolerance of cronyism, mismanagement, and clientelism. Finally, demographic variables—age and gender—are included. The multiple connections theorized within this cognitive model of low-level corruption can be observed in Figure 1.

It shall be noted that, while the model tested here builds on the TPB, it departs from the usually prescribed choice of measuring behavior in its most specific form (including descriptions of context and other relevant details) throughout the entire decision-making process. Instead, it inquires about the payment of bribes in general (that is, without reference to specific recipients or goals) and incorporates context-specific forms only at the levels of attitude and intention. Attitude is, thus, constructed as *situational attitude*, based on the social sphere in which the action takes place; while intention is operationalized as *conditional willingness*, based on the degree of freedom which the situation allows. Through this approach, a wider range of events can be analyzed while still heeding the TPB’s rationale. Additionally, subjective norms are addressed in both their descriptive (‘what others do’) and injunctive (‘what others want you to

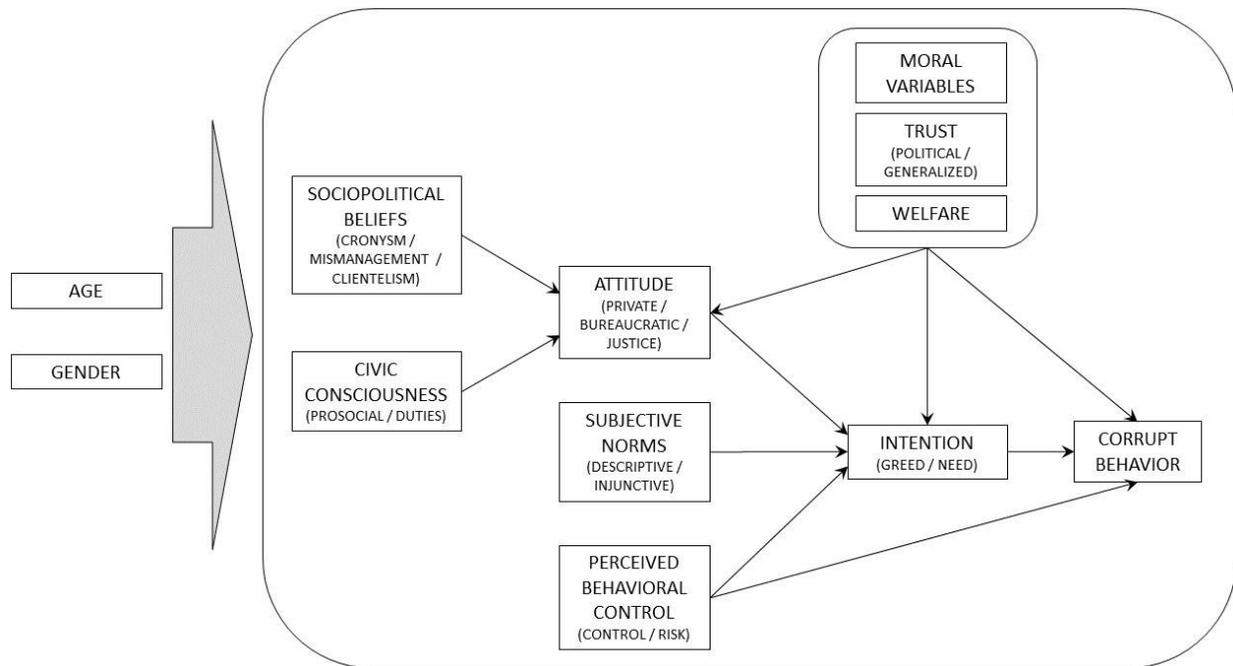


Figure 1. Cognitive Model of Corruption Tolerance.

do’) forms, while PBC is explored in terms of control (‘what you can do’) and risk (‘what happens when you do’).

Situational attitude. Following Jones’ (1991) original argument regarding the issue-contingent nature of ethical decision-making, this study examines the moral weight of bribery in three different spheres of activity: private, bureaucratic, and justice administration. In accordance with past evidence and commentary, it is reasonable to expect that individuals would express different levels of tolerance based on societal and personal ethical considerations. For example, Truex (2011, 1140) finds that “there is relative consensus [among people in Kathmandu] that the standard, large-scale bribery scenario is unacceptable, but there is more discord about behaviors involving favoritism, patronage, and small-scale petty bribes.” We would expect a similarly differential evaluation of bribery in the private and public spheres (Gopinath, 2008), as well as a different degree of tolerance when involving the administration of justice, which may potentially reflect the activation of diverse cognitive elements.

Conditional willingness. Similar to the hypothesis that the level of moral condemnation of bribery is established by reference to the social sphere in which it takes place, an individual's willingness to participate in it can be interpreted by reference to conditional attributes. The earlier mention of volition in the study of corruption tolerance is brought directly to the fore here: How should we interpret the role of free will and, more specifically, its opposite, 'duress'? Bauhr and Nasiritousi (2011) famously revamped the categories of collusion and extortion so as to reposition the citizen at the center of them, consequently calling them acts of 'greed' and 'need' corruption, respectively. Greed describes the payment of bribes to obtain benefits to which individuals are not legally entitled; on the other hand, need reflects the fact that a bribe is paid to gain access to benefits which are being illegally denied to the individual. The two situations thus depart from each other on clearly differentiated moral grounds, and conditional willingness captures the incidence of bribery in a conditional form—that is to say, willingness to pay a bribe if beneficial or if forced to do so.

Sociopolitical beliefs. Ending at the earliest antecedent of behavior, this study further explores the issue of context through the measurement of perceptions (i.e., corruption awareness) and their impact on attitude. To do so, it continues the logic of the two previous decision-making nodes and examines sociopolitical beliefs in the form of civic consciousness and (dis-)approval of disguised instances of abuse of public power. The examination of attitudinal beliefs in this way responds to the premise that attitude toward bribery can be affected by an individual's level of political sophistication or support of civic values. Thus, the model builds on the historical links between the expansion of political rights and public initiatives to control the spread of corruption (Rothstein, 2007; Anechiarico and Jacobs, 1994). By assessing the degree of favor granted to forms of public-sector behavior which are, in fact, antithetical to clean government, corruption awareness and beliefs about public office approach each other in the reaction to three distinct events: cronyism, mismanagement, and clientelism. Each of these represents an example of abuse of public power with a degree of moral dilemma posited by the replacement of purely

private interest with potential public benefit instead, making the perception and interpretation of such situations crucially different to the evaluation of the more evident cases of corruption employed in the assessment of attitude toward bribery. Thus, their (dis)approval will be considered to reflect the extent of political empowerment (as well as an antecedent to the tolerance of bribery) held by the subject.

4 Model testing

4.1 Methodology and data

This study employs multivariate ordered logistic regression with country-specific fixed effects using dummy variables. Each set of relationships is tested through three iterative models— two partial and one full—to assess the PBC’s stability and response to the inclusion of moral, trust and welfare variables.

Data was obtained through an online survey administered between October 9 and December 11 of 2018. Participants were recruited using advertisements on the social media platform Facebook and its subsidiaries. A total of 1,699 subjects from eighteen Spanish-speaking countries in Latin America completed the survey. Participants from Chile (23), Costa Rica (16), Cuba (1), and Panama (8) were later excluded due to the low rate of response. The analysis below uses data from 1,651 subjects from the fourteen remaining countries, distributed as shown in Table 9 in the Appendix, together with basic demographic distributions. Due to the method of recruitment, it is not possible to reject the presence of self-selection bias; therefore, the analysis and discussion ahead reflect the characteristics of those individuals who participated in this study and may not be generalizable to the broader populations within the region.

For the majority of variables, the survey used a multiple-choice closed-ended question design with a 7-point Likert scale. To reduce the effect of potential response bias introduced by the measurement strategy, responses were then rescaled to a simplified 3-point scale reflecting a

negative, neutral, or positive opinion. Table 1 presents the questions assigned to each variable in the model (excluding demographic factors). As can be observed, the Likert scale was employed for questions 4 through 21.

Descriptive statistics of core TPB components are presented in Figure 2. The data shows a substantive presence of corruption tolerance among survey participants, with 33% of respondents reporting having paid a bribe within the previous twelve months, and 67.8% stating that they are willing to do so in the future if it is beneficial or they are forced to do so.

Table 1: Model variables and questionnaire.

1	Behavior: Have you or anyone in your family paid a bribe in the last 12 months? (1) No; (2) Yes.
2	Intention: In what case would you pay a bribe? (1) Never; (2) If forced to do it; (3) If it provides a benefit.
3	Moral development: Imagine that you are walking back home and find a wallet or purse lying on the floor. You lift it and make sure that it is returned to its owner. Which of the following reasons would best and realistically explain your actions? (1) Because a policeman saw me lift it and it could cause me problems if I kept it; (2) Because the owner offered a reward; (3) Because it is what one should do in that case, and I do not like people speaking ill of me; (4) Because it does not belong to me, and one must respect the property of others; (5) Because it is important to be a good citizen, and if we all do our part it will be better for everyone; (6) Because anyone can lose their belongings, and it is important to consider the circumstances and feelings of others and help them whenever possible.
	<i>What do you think about the following ideas? Rate from 1 ("completely false / disagree/bad") to 7 ("completely true / agree/good").</i>
4	Attitude (Private corruption): Your office manager offers you a promotion (with higher benefits), but in exchange for a payment of \$ 500. You accept and are immediately promoted with twice the salary.
5	Attitude (Bureaucratic corruption): You need to renew your driver's license; to save time, you give a "tip" to the person in charge and obtains the new license without having to follow the regular procedure.
6	Attitude (Corruption in justice): You have entered into legal problems; to solve them, you pay the judge and get a favorable result.
7	Subjective norms (descriptive): Most people you know have paid bribes at some point.

- 8 **Subjective norms (injunctive):** Most people important to you think it is right to pay a bribe in certain circumstances.
-
- 9 **PBC (control):** The decision to pay or not a bribe is completely under your control; you can freely decide to pay it or not.
-
- 10 **PBC (risk):** In this country, one can bribe and obtain benefits without risk.
-
- 11 **Political trust (national):** You can trust that our national authorities act correctly in the service of the country.
-
- 12 **Political trust (local):** You can trust that our local authorities act correctly in community service.
-
- 13 **Generalized trust:** Most people can be trusted; It is not necessary to be very careful.
-
- 14 **Moral disengagement:** If people are careless where they leave their things, it is their fault if they are stolen.
-
- 15 **Centrality of moral identity:** Regardless of the concern for values, in today's world one must be practical, adapt to opportunities and do what is most advantageous.
-
- 16 **Sociopolitical beliefs (cronyism):** There are security problems in your neighborhood. Fortunately, you are friends with the police captain and get priority patrolling.
-
- 17 **Sociopolitical beliefs (mismanagement):** You work at city hall. The mayor is very capable and has greatly improved the city. When election time comes, you and other employees are assigned to support the re-election campaign.
-
- 18 **Sociopolitical beliefs (clientelism):** In the city where you live, most of the people voted for the current President. In gratitude, the President announces the creation of a new social program that will primarily benefit you and your community.
-
- 19 **Sociopolitical beliefs (civic consciousness—prosocial):** Each person must take care of themselves and their own family, and not expect others or the government to improve the situation.
-
- 20 **Sociopolitical beliefs (civic consciousness—duties):** We must all donate part of our time and effort to help improve our city.
-
- 21 **Welfare:** The economic situation at home is comfortable.
-

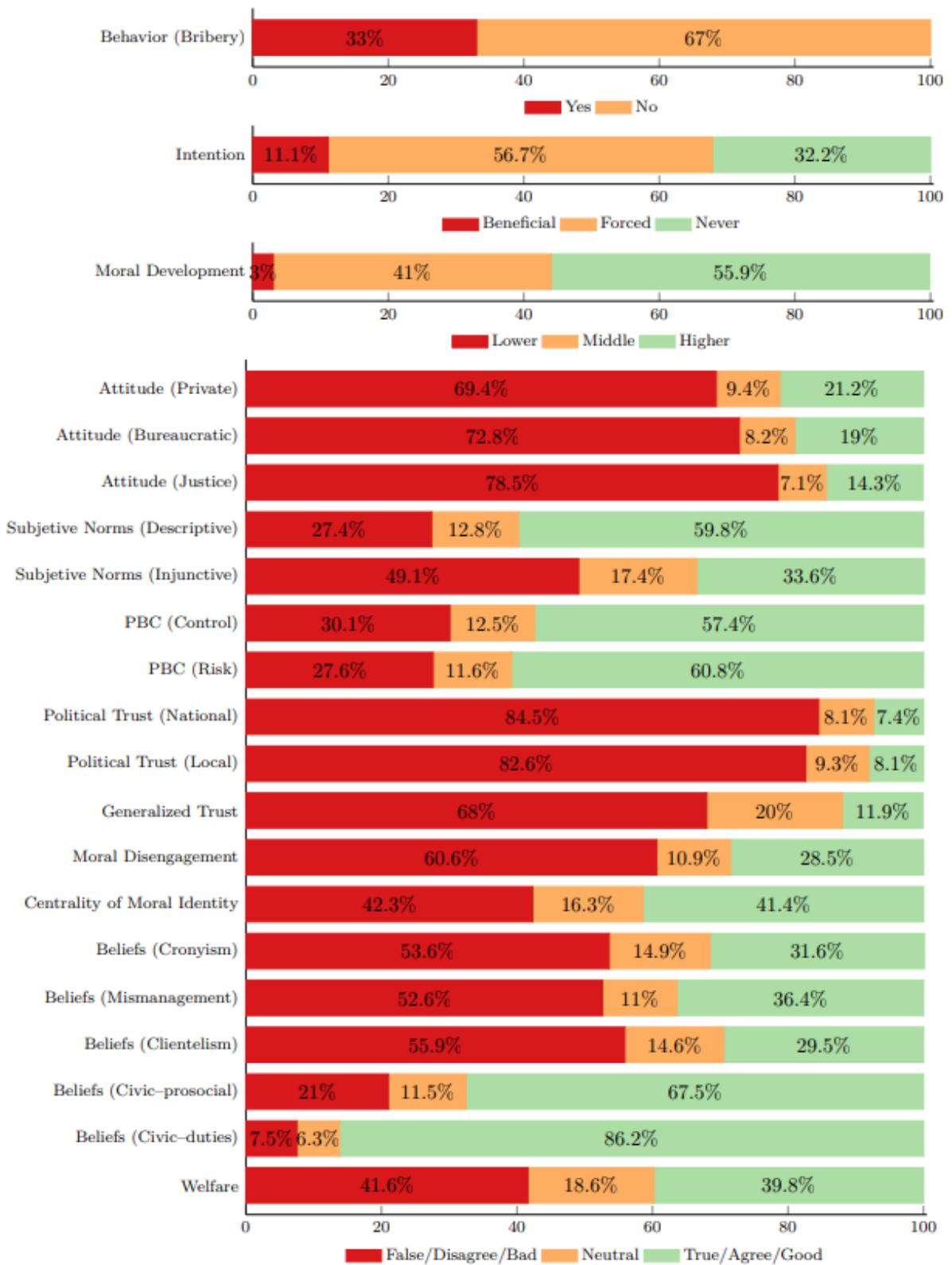


Figure 2: Descriptive statistics of survey responses.

These results contrast with participants' attitude toward bribery itself, as a majority of subjects report negative opinions of bribery in all three scenarios. Furthermore, their responses offer preliminary support for the premise introduced in the previous section—people are more tolerant of bribery in an office setting than of illicit payments to corrupt the administration of justice, with bribery of street-level public officials somewhat in the middle (although closer to the former). However, a not-insignificant number (14.3%) of people approve of bribing a judge. Tolerance is even more pronounced in regard to 'corrupt' sociopolitical beliefs, as between 29% and 37% approve of cases involving clientelism, mismanagement, or cronyism. The difference between behavior and opinions is also present in subjective norms—almost 60% believe that others have engaged in bribery while only 34% believe that others approve of the act. Finally, over half of the survey participants feel in control of the decision to bribe or not, and consider it to be risk-free. This point seems particularly telling and could be considered an explanation for the reported rate of bribery. To test this and other connections included in the theoretical model, the study now turns to the regression analysis.

4.2 Analysis

This section tests the correlations implied in the cognitive model of corruption tolerance, starting from the immediate antecedents of behavior and moving backward one stage at a time. Effects are provided in odds ratio, representing “the odds that an outcome will occur given a particular exposure, compared to the odds of the outcome occurring in the absence of that exposure” (Szumilas, 2010, 227). An odds ratio greater than 1 reflects a positive correlation, while below 1 reflects a negative correlation. The models are also tested for goodness of fit using McFadden's R^2 , and specification error using Pregibon's Link Test (for which the z -scores of the linear predicted values squared are presented). McFadden's R^2 gives a value between 0 and 1, with results over 0.2 indicating an excellent fit (McFadden, 1978); on the other hand, a Pregibon z -

score that is not statistically significant will signal that the model was properly specified and satisfies the regression assumptions.

For the purpose of facilitating the reading of the tables below and the way they elaborate on the model shown in Figure 1, the process diagram in Figure 3 shows the successive steps of the empirical test that are carried out, making our way back from corrupt behavior, to the intention to engage in that behavior, to the attitude toward different types of bribery. In other words, this section follows the inverse direction than the one used to express causality in Figure 1.

Table 2 presents the analysis of bribery. The results show that intention, PBC (control), moral disengagement, and gender are statistically significant predictors of bribery, whereas PBC (risk), centrality of moral identity, moral development, trust, and welfare are not. Looking at the overall model, the results show a slightly underperforming fitness but otherwise properly specified (as reflected in the z-scores of Pregibon's Link Test). Thus, it can be observed that higher reported intention and higher moral disengagement correlate with increased odds of engaging in bribery, while being female and expressing more perceived control decreases the odds.

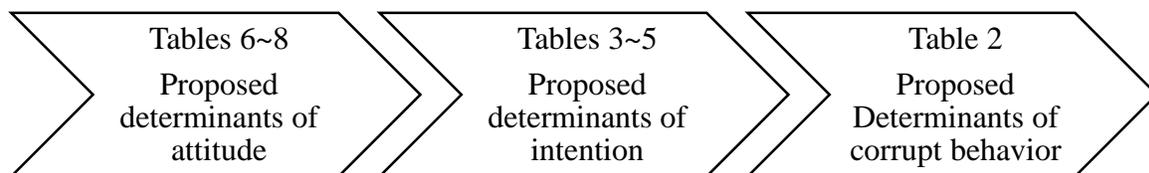


Figure 3: Direction of causality (arrows) and sequence of analysis (tables).

Table 2: Analysis of the decision to engage in bribery

Variable	Model 1	Model 2	Model 3
Intention	2.681*** (0.31)		2.627*** (0.32)
Age	1.081 (0.06)		1.028 (0.06)
Gender	0.673** (0.10)		0.678* (0.11)
PBC (Control)	0.707*** (0.05)		0.707*** (0.05)
PBC (Risk)	1.178* (0.09)		1.103 (0.09)
M. Disengagement		1.382*** (0.10)	1.267** (0.10)
M. Identity		1.057 (0.07)	0.954 (0.08)
M. Development		0.978 (0.06)	0.975 (0.06)
Trust (National)		0.856 (0.13)	0.714 (0.12)
Trust (Local)		0.855 (0.13)	0.943 (0.16)
Trust (Generalized)		0.925 (0.09)	0.958 (0.10)
Welfare		0.916 (0.07)	0.892 (0.07)
<i>N</i>	1275	1346	1233
<i>McFadden's R2</i>	0.150	0.092	0.165
<i>Pregibon's Link Test (z)</i>	-0.57	-0.11	-0.02

(Standard errors in parentheses)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

The next three tables show the factors that correlate with intention. In line with the arguments presented in Section 3 regarding situational attitude—a *differential evaluation of bribery in the private and public spheres*—and the desire to obtain actionable results for each form of corruption considered here, the analyses include the attitudes toward bribery in private, bureaucratic, and justice settings considered separately.

The analysis of intention—when attitude focuses on bribery in the private sector—is shown in Table 3. The conditional forms of *beneficial* and *forced* are presented side by side. TPB and moral variables are found to be statistically significant, although important differences can be observed across conditions. Attitude, descriptive norms, moral disengagement, and age are significant for both beneficial and forced conditions, but attitude and moral disengagement have a much larger effect under the beneficial condition. Likewise, moral identity is only significant when bribery is beneficial, while injunctive norms, PBC (control), and generalized trust are significant only when bribery is forced. These results depict the intention to engage in bribery when it is beneficial as determined more by attitude, moral disengagement, and moral identity as compared to when it is forced—in the latter case, injunctive norms, perceived control, and generalized trust become relevant factors in predicting an individual’s intention. Regarding the overall models, McFadden’s R^2 indicates a very good fit for the beneficial case, but not so for the forced condition.

Table 3: Analysis of the intention to engage in bribery (attitude = *private*).

Variable	Beneficial			Forced		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Attitude	3.616*** (0.55)		3.398*** (0.55)	1.873*** (0.20)		1.829*** (0.20)
Age	0.747** (0.08)		0.778* (0.09)	0.867** (0.05)		0.881* (0.05)
Gender	0.458* (0.14)		0.599 (0.21)	0.845 (0.12)		0.851 (0.13)
Descriptive norms	1.563** (0.27)		1.503* (0.28)	1.397*** (0.12)		1.330** (0.12)
Injunctive norms	1.218 (0.18)		1.168 (0.19)	1.193* (0.10)		1.185* (0.10)
PBC (Control)	0.847 (0.13)		0.834 (0.14)	0.663*** (0.05)		0.642*** (0.05)
PBC (Risk)	1.049 (0.17)		0.894 (0.15)	1.012 (0.08)		0.973 (0.08)
M. Disengagement		1.871*** (0.23)	1.861*** (0.29)		1.336*** (0.10)	1.315** (0.11)
M. Identity		2.251*** (0.30)	1.740*** (0.28)		1.205* (0.09)	1.137 (0.09)
M. Development		0.976 (0.10)	1.047 (0.14)		1.052 (0.07)	1.048 (0.07)
Trust (National)		1.357 (0.34)	1.293 (0.38)		0.986 (0.15)	0.985 (0.16)
Trust (Local)		0.609 (0.15)	0.714 (0.21)		0.929 (0.13)	0.987 (0.15)
Trust (Generalized)		1.034 (0.17)	0.957 (0.18)		0.782* (0.08)	0.749** (0.08)
Welfare		1.309* (0.18)	1.205 (0.20)		1.049 (0.08)	1.078 (0.09)
<i>N</i>	525	548	513	1107	1175	1089
<i>McFadden's R2</i>	0.318	0.207	0.384	0.102	0.049	0.120
<i>Pregibon's Link Test (z)</i>	-0.55	-0.30	-1.81	-2.06*	-0.73	-1.68

(Standard errors in parentheses)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

The analysis is repeated in Table 4 for attitude toward bribery in a bureaucratic setting, with results closely following those of the previous table. Once again, attitude and moral disengagement are found to be statistically significant across both sets of models, with a larger effect on intention when bribery is beneficial. That being said, attitude toward bribery in a bureaucratic setting shows significantly less predictive power than its private counterpart. Other predictors found in Table 3 remain significant, with the exception of descriptive norms, which is dropped under the beneficial model. The totality of these results describes the intention to engage in bribery when it is beneficial as predicted by attitude, age (younger), higher moral disengagement, and a less central moral identity. The model also shows a very good fit. Looking at the forced model, however, we find a statistically significant z-score in Pregibon's Link Test, which casts doubts over the validity of its results.

Table 5 presents the analysis when attitude is measured in relation to bribery in the administration of justice. Attitude and moral disengagement are again significant, with a larger impact under the beneficial condition—while the opposite is true for age, albeit to a lesser degree. Centrality of moral identity continues to be significant only when bribery is beneficial, while PBC (control) and generalized trust are significant only in the forced model. Similar to Table 3, injunctive norms are significant only when bribery is forced; however, descriptive norms become again significant and with a larger effect. Finally, the beneficial model continues to show an excellent fit, while the forced model is found correctly specified but not providing a particularly good fit.

Table 4: Analysis of the intention to engage in bribery (attitude = *bureaucratic*).

Variable	Beneficial			Forced		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Attitude	3.041*** (0.46)		2.640*** (0.43)	1.448*** (0.15)		1.349** (0.14)
Age	0.679*** (0.07)		0.695** (0.08)	0.838*** (0.04)		0.849** (0.05)
Gender	0.419** (0.13)		0.545 (0.18)	0.799 (0.11)		0.800 (0.12)
Descriptive norms	1.398* (0.24)		1.416 (0.26)	1.359*** (0.11)		1.307** (0.11)
Injunctive norms	1.322 (0.19)		1.298 (0.20)	1.246** (0.10)		1.234* (0.10)
PBC (Control)	1.095 (0.17)		1.109 (0.18)	0.677*** (0.05)		0.655*** (0.05)
PBC (Risk)	1.088 (0.17)		0.939 (0.16)	1.019 (0.08)		0.981 (0.08)
M. Disengagement		1.871*** (0.06)	1.816*** (0.28)		1.336*** (0.10)	1.310** (0.11)
M. Identity		2.251*** (0.08)	1.694*** (0.27)		1.205* (0.09)	1.151 (0.09)
M. Development		0.976 (0.11)	1.070 (0.14)		1.052 (0.07)	1.026 (0.07)
Trust (National)		1.357 (0.12)	1.471 (0.43)		0.986 (0.15)	1.070 (0.17)
Trust (Local)		0.609 (0.09)	0.671 (0.20)		0.929 (0.13)	0.926 (0.14)
Trust (Generalized)		1.034 (0.08)	0.971 (0.18)		0.782* (0.08)	0.766* (0.08)
Welfare		1.309* (0.07)	1.151 (0.19)		1.049 (0.08)	1.055 (0.09)
<i>N</i>	521	548	510	1103	1175	1086
<i>McFadden's R2</i>	0.283	0.207	0.341	0.084	0.049	0.101
<i>Pregibon's Link Test (z)</i>	-0.74	-0.30	-1.00	-2.65**	-0.73	-2.15*

(Standard errors in parentheses)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 5: Analysis of the intention to engage in corrupt behavior (attitude = *justice*).

Variable	Beneficial			Forced		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Attitude	2.759*** (0.44)		2.503*** (0.45)	1.485*** (0.17)		1.448** (0.17)
Age	0.624*** (0.07)		0.684*** (0.08)	0.829*** (0.04)		0.844** (0.05)
Gender	0.378** (0.11)		0.465* (0.15)	0.809 (0.12)		0.808 (0.12)
Descriptive norms	1.695** (0.28)		1.626** (0.29)	1.414*** (0.12)		1.343*** (0.12)
Injunctive norms	1.283 (0.18)		1.240 (0.19)	1.218* (0.10)		1.213* (0.10)
PBC (Control)	1.050 (0.15)		1.031 (0.17)	0.689*** (0.05)		0.661*** (0.05)
PBC (Risk)	0.964 (0.14)		0.847 (0.14)	1.020 (0.08)		0.986 (0.08)
M. Disengagement		1.871*** (0.23)	1.794*** (0.27)		1.336*** (0.10)	1.345*** (0.12)
M. Identity		2.251*** (0.30)	1.755*** (0.27)		1.205* (0.09)	1.152 (0.09)
M. Development		0.976 (0.10)	1.050 (0.13)		1.052 (0.07)	1.037 (0.07)
Trust (National)		1.357 (0.34)	1.289 (0.36)		0.986 (0.15)	1.046 (0.17)
Trust (Local)		0.609 (0.15)	0.704 (0.20)		0.929 (0.13)	0.928 (0.14)
Trust (Generalized)		1.034 (0.17)	1.035 (0.19)		0.782* (0.08)	0.784* (0.08)
Welfare		1.309* (0.18)	1.212 (0.19)		1.049 (0.08)	1.052 (0.09)
<i>N</i>	523	548	510	1107	1175	1086
<i>McFadden's R2</i>	0.254	0.207	0.326	0.083	0.049	0.104
<i>Pregibon's Link Test (z)</i>	-0.53	-0.30	-1.28	-2.23*	-0.73	-1.79

(Standard errors in parentheses)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Finally, Tables 6 through 8 present the analyses of the three measurements of attitude toward engaging in bribery. Although of relatively poor fit, all three models are shown to be free of specification errors.

In the case of attitude toward bribery in the private sector shown in Table 6, age, gender, moral disengagement, and centrality of moral identity are found to be statistically significant, as are the three measures of sociopolitical beliefs related to abuse of public power—cronyism, mismanagement, and clientelism.

The results for bribery in a bureaucratic setting in Table 7 show a somewhat different pattern, age, gender, and clientelism losing significance. Cronyism, mismanagement, moral disengagement, and centrality of moral identity are again significant here. It is worth noting that moral disengagement shows a larger correlation here than it did in the previous and following tables.

Finally, a broader set of predictors emerge in the case of bribery in the administration of justice in Table 8, with age, civic duties, and all sociopolitical beliefs—i.e., cronyism, mismanagement, clientelism—and moral variables—i.e., moral disengagement, centrality of moral identity, and moral development—becoming statistically significant.

Summarizing these results, they show that a more tolerant attitude toward bribery is generally correlated with moral disengagement and identity, and an approval of cases of cronyism, mismanagement, and clientelism. Trust is not significant in any of the models, while civic consciousness is only significant in the form of civic duties and only in connection with the administration of justice.

Table 6: Analysis of the attitude (*private*) towards engaging in corrupt behavior

Variable	Model 1	Model 2	Model 3
Age	0.851** (0.04)		0.820*** (0.05)
Gender	0.613** (0.09)		0.636** (0.10)
Civic (Prosocial)	1.028 (0.09)		0.984 (0.08)
Civic (Duties)	0.784* (0.09)		0.813 (0.10)
Cronyism	1.619*** (0.13)		1.564*** (0.13)
Mismanagement	1.339*** (0.10)		1.355*** (0.11)
Clientelism	1.431*** (0.11)		1.336*** (0.11)
M. Disengagement		1.285*** (0.09)	1.277** (0.10)
M. Identity		1.649*** (0.12)	1.297** (0.11)
M. Development		0.949 (0.06)	0.900 (0.06)
Trust (National)		1.274 (0.17)	1.199 (0.17)
Trust (Local)		0.749* (0.10)	0.754 (0.11)
Trust (Generalized)		1.100 (0.10)	1.097 (0.11)
Welfare		0.943 (0.07)	0.858 (0.07)
<i>N</i>	1274	1341	1252
<i>McFadden's R2</i>	0.108	0.058	0.127
<i>Pregibon's Link Test (z)</i>	-0.43	-0.29	-0.18

(Standard errors in parentheses)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 7: Analysis of the attitude (*bureaucratic*) towards engaging in corrupt behavior.

Variable	Model 1	Model 2	Model 3
Age	1.055 (0.06)		1.042 (0.06)
Gender	0.697* (0.11)		0.733 (0.12)
Civic (Prosocial)	1.078 (0.09)		0.974 (0.09)
Civic (Duties)	0.847 (0.10)		0.886 (0.11)
Cronyism	1.653*** (0.13)		1.582*** (0.13)
Mismanagement	1.285** (0.10)		1.313*** (0.11)
Clientelism	1.180* (0.09)		1.068 (0.09)
M. Disengagement		1.546*** (0.11)	1.554*** (0.12)
M. Identity		1.565*** (0.12)	1.365*** (0.11)
M. Development		0.939 (0.06)	0.920 (0.06)
Trust (National)		1.207 (0.17)	1.155 (0.17)
Trust (Local)		0.805 (0.12)	0.759 (0.12)
Trust (Generalized)		1.058 (0.10)	1.061 (0.11)
Welfare		0.990 (0.07)	0.975 (0.08)
<i>N</i>	1272	1339	1250
<i>McFadden's R2</i>	0.070	0.066	0.105
<i>Pregibon's Link Test (z)</i>	0.59	0.84	0.94

(Standard errors in parentheses)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

Table 8: Analysis of the attitude (*justice*) towards engaging in corrupt behavior.

Variable	Model 1	Model 2	Model 3
Age	1.247*** (0.07)		1.201** (0.07)
Gender	0.717* (0.12)		0.736 (0.13)
Civic (Prosocial)	1.119 (0.10)		1.035 (0.10)
Civic (Duties)	0.557*** (0.06)		0.572*** (0.07)
Cronyism	1.622*** (0.14)		1.600*** (0.15)
Mismanagement	1.333*** (0.11)		1.342*** (0.12)
Clientelism	1.421*** (0.12)		1.303** (0.11)
M. Disengagement		1.536*** (0.12)	1.437*** (0.12)
M. Identity		1.493*** (0.12)	1.332** (0.12)
M. Development		0.866* (0.05)	0.852* (0.06)
Trust (National)		0.931 (0.15)	0.882 (0.15)
Trust (Local)		1.053 (0.16)	0.915 (0.15)
Trust (Generalized)		0.941 (0.10)	0.905 (0.10)
Welfare		0.800** (0.06)	0.843 (0.07)
<i>N</i>	1273	1339	1250
<i>McFadden's R2</i>	0.091	0.060	0.121
<i>Pregibon's Link Test (z)</i>	1.49	2.62**	1.28

(Standard errors in parentheses)

*** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$

4.3 Discussion

The analysis identified several factors that correlate with higher corruption tolerance at several key nodes of the behavioral model. Starting from the earliest stage of the decision-making process modelled in this study, it was found that subjects expressing a higher approval of cronyism, mismanagement and clientelism also report a more approving attitude toward bribery. Likewise, a higher degree of moral disengagement and a less accessible moral self-conception made for a more tolerant attitude. While these relationships are unsurprising, the presence or absence of other factors combine to offer a clearer image of the different constructions of attitudinal tolerance of bribery. For example, all other things being equal, subjects who mistrust local or national authorities were not more or less inclined to approve of bureaucratic bribery, and neither were those who mistrust strangers. These results would seem to contradict the arguments introduced by authors such as Uslaner (2004) and Persson et al. (2013). While the goodness-of-fit of the models examined leaves ample room for improvement, a qualitative examination of the issue might also be needed to reveal the links between trust, corruption, and morality.

Moving on to the next stage in the cognitive process, we find that the intention to engage in bribery when beneficial is generally correlated with a tolerant attitude toward the act, an environment where bribery is common, a tendency toward moral disengagement, a less central moral identity, and being younger. However, the effect size varies with the attitude measured: Attitude toward private bribery has a significantly larger effect on intention than either the bureaucratic or justice forms. Turning to the intention to bribe when forced, the results generally find that it correlates with a positive attitude toward the act, a perceived approval of the act by others, a decline in perceived control, a tendency toward moral disengagement, and less trust in others. Once again, an approving attitude has a stronger correlation with intention when measured in relation to private bribery—although not as strong as in the case of beneficial bribery.

However, as insightful as the comparison across the independent variable is, the most interesting evidence emerges when one compares the results for the two conditions of beneficial and forced: attitude and moral disengagement consistently have over twice the effect on intention under the beneficial condition than they do under the forced condition—and the difference is even more pronounced for the role of moral identity, which is simply not significant in the models for forced bribery. On the other hand, perceived control, injunctive norms, and trust in others are significant only when intention is constructed as forced and not when it is beneficial. The combination of these results represents an empirical defense of the popular idea of collusion as a moral weakness, whereas an individual's role in instances of extortion is that of a victim, perhaps not completely blameless but responding to a different set of internal characteristics—most importantly, in this case, to a lack of confidence in oneself, a suspicion of strangers, and the expectation that friends and family would understand and approve of one's decision to surrender a bribe. These contrasting images, however, should be discussed with caution, as the goodness-of-fit of the beneficial models were found underwhelming.

Finally, the analysis found that the intention to engage in bribery has, by far, the largest effect in regard to the actual behavior. Other factors include expressing a lack of control over the act, displaying a tendency toward moral disengagement, and being male. It is very telling to find that other variables more commonly included in this kind of analysis, such as risk, subjective welfare, and even trust were not found to significantly correlate with behavior—a pattern which was also identified at other stages of the cognitive process. Conversely, perceived control and moral disengagement remained firmly grounded as empirically relevant factors behind the decision to engage in bribery.

The above results corroborate the theorized value of employing the TPB as a general model for the study of corruption, and the significant role played by moral factors in the individual's tolerance of corruption when operationalized as bribery.

5 Conclusions

This study attempted to introduce a decision-making model to better understand corruption tolerance by combining elements and models already present in fields other than political science and economics. When corruption tolerance is approached as a behavioral phenomenon, the argument proposed that associated decisions could be better understood by borrowing elements from more general approaches, in particular those of ethical decision-making and the theory of planned behavior (TPB). After reviewing the literature and identifying several studies that attempted to conduct such integration on a smaller scale, the study presented a ‘cognitive model of corruption tolerance’ incorporating moral, social, and political variables relevant to the decision-making process. Particularly relevant is the fact that the model included alternative forms of behavioral attitudes and intention to control for private, bureaucratic, and justice corruption, and cases of collusion and extortion. The analysis found that the elements associated with the TPB have a discriminant effect at different stages of the cognitive process, and that moral disengagement—and, to a lower degree, the centrality of moral identity—is a consistently relevant factor in predicting the attitude, intention, and engagement in bribery. Other variables were also found to be statistically significant, although perceived risk, subjective welfare, and trust—factors which other studies in the (anti-)corruption field commonly regard as important determinants—were largely found to be non-significant. In addition to these findings, the comparison between conditional willingness to engage in bribery (i.e., intention when bribery is beneficial or when it is forced) and the situational attitude toward the act (operationalized as bribery in private, bureaucratic, or justice administration) provided interesting insights into the different factors that become relevant depending on the precise form of corruption under study. Collusive bribery correlated strongly with a more tolerant attitude and a weaker sense of morality, whereas cases of extortion reflected a limited sense of control over one’s own actions and a tendency to distrust others. In regard to situational attitude, the expected effects of sociopolitical

beliefs examined here—i.e., the (dis-)approval of cronyism, mismanagement, and clientelism, and the expression of civic consciousness—were mostly supported by the data. Finally, although the identification of attitude toward private bribery as a key factor to reducing intention and, subsequently, corruption behavior suggests a more targeted behavioral intervention for future initiatives, it does not eliminate the need to invest in efforts to reduce attitudinal tolerance toward bureaucratic and justice bribery, as these also represent a form of corruption tolerance with other potential implications.

The totality of these results supports the original premise regarding the value of adopting cognitive and ethical models for the study of corruption tolerance. Although the argument presented here locates corruption squarely at the level of the individual rather than the organization or society, it acknowledges, from its inception, that behavioral processes rely on external influences as much as on internal factors, thus describing the decision-making process as the result of their complex interactions. Besides further exploration of the precise range of factors that may determine the decision to engage in bribery (some of which may still be missing in this study, as strongly suggested by some results concerning the models' goodness-of-fit), the next steps will require the examination of how decisions are constructed amidst a variety of external settings. For the time being, the model and results presented here offer sufficient justification to continue adapting the insights from cognitive and moral studies to the field of (anti-)corruption.

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Appendix

Table 9: Distribution of survey participants by country, age, and gender.

	Total	Age							Gender		
		-18	18-24	25-34	35-44	45-54	55-64	65+	Male	Female	N/A
Argentina	57	3.5%	8.8%	19.3%	12.3%	49.1%	3.5%	3.5%	71.9%	28.1%	0.0%
Bolivia	176	8.5%	36.9%	26.1%	11.4%	14.8%	2.3%	0.0%	59.7%	18.2%	22.2%
Colombia	164	34.8%	40.2%	9.8%	5.5%	9.1%	0.6%	0.0%	54.9%	16.5%	28.7%
Ecuador	108	7.4%	38.0%	14.8%	16.7%	19.4%	1.9%	1.9%	58.3%	21.3%	20.4%
El Salvador	116	7.8%	37.9%	20.7%	14.7%	17.2%	0.9%	0.9%	57.8%	22.4%	19.8%
Guatemala	120	10.8%	41.7%	20.8%	12.5%	13.3%	0.8%	0.0%	62.5%	20.0%	17.5%
Honduras	178	8.4%	23.6%	32.6%	18.5%	16.9%	0.0%	0.0%	58.4%	24.2%	17.4%
Mexico	178	33.1%	21.3%	14.6%	9.6%	17.4%	3.9%	0.0%	73.0%	20.2%	6.7%
Nicaragua	58	6.9%	17.2%	31.0%	15.5%	27.6%	1.7%	0.0%	53.4%	31.0%	15.5%
Paraguay	180	11.7%	35.6%	31.7%	16.1%	5.0%	0.0%	0.0%	51.7%	22.2%	26.1%
Peru	43	7.0%	27.9%	25.6%	9.3%	30.2%	0.0%	0.0%	44.2%	32.6%	23.3%
Dominican Republic	140	10.7%	38.6%	25.7%	17.1%	7.1%	0.7%	0.0%	34.3%	27.1%	38.6%
Uruguay	69	5.8%	13.0%	18.8%	29.0%	31.9%	1.4%	0.0%	46.4%	46.4%	7.2%
Venezuela	64	0.0%	0.0%	26.6%	28.1%	45.3%	0.0%	0.0%	60.9%	37.5%	1.6%
Total	1,651	13.6%	30.3%	22.7%	14.5%	17.3%	1.3%	0.3%	56.8%	23.8%	19.4%

Response to reviewers' comments

Reviewer #3 : Besides the comments and responses below, the authors wish to note that, due to the recoding of responses (from a 7-point to a 3-point scale, as presently explained in the manuscript) the statistical results have been revised after a revision of the methodology. The general results, however, remain largely unchanged.

- *"Table 3 should still be presented before the "4. Model testing" once it helps us to understand the author(s) "causal" chain. About that causal claim, I would, nevertheless pair it down."*
 - This has been fixed by revising terms and changing "determined" for "correlated".

- *"... start sub-section "4.1 Methodology and Data" with some descriptive stats of your variables (you should maintain Figure 2, nevertheless) but before write around "Table 1" but send it to the appendix as this is information that kind of gets lost in the section."*
 - The authors believe that the manuscript would have become unnecessary lengthy as all the information is already in Figure 2.

- *"... only maintain and report the variables that are relevant for your theory."*
 - All reported variables are included in the model as depicted in Figure 1, therefore are considered relevant.

Reviewer #4: Besides the comments and responses below, the authors wish to note that, due to the recoding of responses (from a 7-point to a 3-point scale, as presently explained in the manuscript) the statistical results have been revised after a revision of the methodology. The general results, however, remain largely unchanged.

- *"... the definition of corruption should be clarified and harmonized throughout the paper."*
 - While the criticism is valid, the reason to keep the terminology as is rests in the fact that the model includes both the tolerance of bribery and attitudes toward corruption. The manuscript clarifies early on that the phenomenon that is tolerated by individuals here is, specifically, bribery; establishes that bribery is a specific form of corruption; and provides definitions accordingly. The authors believe that to reduce the discussion to a single concept throughout the manuscript would make it easier on the readers but be ultimately misleading.

- *"... "large array of policy tools" p. 1), but which ones?"*
 - (Some examples have been included)

- *"Wouldn't it have been appropriate to test the impact, if any, of the rule of law on the cognitive/belief spheres of respondents in the different contexts examined by the study? Why didn't the author(s) consider this factor?"*
 - The authors consider that all external factors are processed by the individual's decision-making process; thus, the rule of law would have needed to be operationalized as a specific opinion or perception about it. The authors believe that the norms and PBC variables fulfill this.

- *"The figure with the summary statistics (Figure 2) should include all the variables taken into analysis and not just a part of them."*
 - All missing variables have been added to the Figure. An explanation of how responses were coded has also been included.

- *"... a table with a breakdown of the sample by countries is missing (and this would at least allow for an understanding of where the respondents are coming from)".*
 - Done.

- *"The lack of representativeness of the selected sample is a limitation of the study that the author(s) do not even mention."*
 - This has been addressed by adding the following in the Methodology and Data section: "Due to the method of recruitment, it is not possible to reject the presence of self-selection bias; therefore, the analysis and discussion ahead reflect the characteristics of those individuals who participated in this study and may not be generalizable to the broader populations within the region."

- *"... it is not correct to speak of causality, but of correlation."*
 - This has been fixed by revising terms and changing "determined" for "correlated".

- *"... more detail about the goodness-of-fit of the model and the possible presence of Specification Error."*
 - The results of McFadden's R2 have been included in the discussion of results, and a new statistic--Pregibon's Link Test—have been added and discussed.

- *“Wouldn't it be better to simplify, modify the structure (through subsections?) or propose an alternative analysis (for example SEM models?)”.*
 - As SEM works with factor analysis and other methods, and works best for identifying latent variables, we did not consider it to be the best approach, even if it could serve to simplify the reading. Additionally, many anti-corruption experts are more familiar with regression analysis rather than SEM, and it might have worked against the goal of simplification.