University of Brasília

Psychology Institute

Social, Work and Organizational Psychology Program

“I cheated and got away with it”: The influence of descriptive norms of trickery and the cultural context on dishonest behavior and corruption intentions

Doctoral dissertation in Social, Work and Organizational Psychology

Jéssica Esther Machado Farias

Brasília

2022

University of Brasília

Psychology Institute

Social, Work and Organizational Psychology Program

"I cheated and got away with it": The influence of descriptive norms of trickery and of the cultural context on dishonest behavior

Doctoral Dissertation

Jéssica Esther Machado Farias

Advisor: Prof. Ronaldo Pilati, Doctor

Doctoral dissertation submitted in fulfillment of the requirements for the degree of Doctor in Social, Work, and Organizational Psychology in the Graduate Program of Social, Work, and Organizational Psychology.

Brasília

April, 2022

BOARD OF EXAMINERS:

_____

Ronaldo Pilati, PhD

University of Brasília

(President)

_____

Ronald Fischer, PhD

Victoria University of Wellington

(Member)

_____

Angelo Brandelli Costa, PhD

Pontifical Catholic University of Rio Grande do Sul

(Member)

_____

Jacob Arie Laros, PhD

University of Brasília

(Member)

_____

Josemberg Andrade, PhD

University of Brasília

(Substitute member)

Acknowledgments

This doctoral dissertation seals the closure of a challenging and meaningful cycle which started when I left my hometown to start a master's degree. Across these six years had I never imagined I would learn such a great deal and adapt so well to a new land and a new life as a researcher. Thus, I must express how thankful I am to many people who have made this journey possible and easier to follow through.

I am grateful for the assistance I received from my boyfriend, my friends, and my parents throughout this whole time, which made it possible for me to keep motivated and find emotional support to go on. Writing a doctoral dissertation and carrying out research is often a lonely process but they have made it much easier to keep going.

I would also like to thank my advisor, professor Ronaldo Pilati, who is an outstanding professional and is extremely committed to his work. I must acknowledge his excellence as a professor and that he continuously strives to do his best in his role as an academic advisor. I am also grateful to all the professors in the Graduate Program of Social, Work, and Organizational Psychology for the valuable lessons I have learned during my master's and doctoral studies.

Finally, I would like to thank everyone who has directly or indirectly contributed to the conduction and improvement of this work and has not been mentioned. This includes undergraduate students who I have mentored and have assisted me in the laboratory experiment carried out in Study 2 and also the professors who accepted to participate in the doctoral dissertation defense committee to make great contributions to the improvement of this work.

Summary

List of Tables

General Abstract

This research assesses the impact of social norms and the cultural context on corruption intentions and dishonest behavior. In Study 1, participants answered a survey on injunctive and descriptive norms, past dishonest behavior, and corruption intentions. As result, participants tended to be more corrupt when negotiating with ingroup members and low amounts of money. Furthermore, admitting to having engaged more in petty dishonesty predicted stronger intentions of corrupt behavior. In Study 2, we analyzed to what extent receiving advice from a confederate would influence participants toward cheating in a task to obtain a financial reward. We found that receiving a tip inclined them toward being more dishonest in comparison with a control group. Besides, self-reported descriptive norms of petty dishonesty were significantly correlated with the results obtained in a task, providing further evidence to the observation that the dishonesty of others may influence participants' behaviors. Finally, in Study 3, we investigate the effect of cultural and individual variables on engagement in civic honesty by reporting a lost wallet. We found that males and older citizens living in countries that are more culturally tight and more unequal as well as have a higher perception of corruption, fewer years of democracy, and a lower share of protestants were less likely to return a lost wallet. Multilevel regression analyses also revealed that cultural tightness, perception of corruption, proportion of Protestants and income inequality are significant predictors of civic honesty. Our findings suggest that individuals who engage in petty dishonesty may be more corruptible (Study 1). They also indicate that making descriptive norms of honesty salient and working on promoting the enhancement of individuals' self-esteem may reduce dishonest behavior (Study 2). Finally, improving corruption perception while decreasing income inequality may lead to heightened levels of civic honesty (Study 3).

Keywords: dishonesty; dishonest behavior; corruption; social norms; culture.

Introduction

The extent to which individuals follow rules may be influenced by how prevalent rule violation is in a specific place (Keizer et al., 2008). This may happen because, if cheating is profoundly embedded in a certain society and goes unpunished, individuals may start to see daily dishonesty as justifiable and acceptable, and thus acting dishonestly may not compromise their self-concept of honesty any longer (Gino et al., 2009). Furthermore, people learn to behave in a socially-expected way by acting in a manner they believe other people approve of and by avoiding behaviors they think others disapprove of. Experiencing unfair situations often may also increase dishonesty (Houser et al., 2012), seeing that weak institutions and cultural legacies that generate rule violations not only may have direct adverse economic consequences but may also impair individual intrinsic honesty, which is crucial for the smooth functioning of society (Gächter & Schulz, 2016). Thus, the decision on whether engage in dishonest behavior or corruption may be influenced by consulting others' behaviors to find out what to do.

The beliefs about what others think we should or should not do are known as subjective norms (Ajzen & Fishbein, 1975) — or injunctive norms (Cialdini et al., 1991) — while the beliefs about what most people do in specified environments are also referred to as descriptive norms (Cialdini et al., 1991). The concept of social norms has been incorporated in behavioral models to optimize the prediction and explanation of human action (Ajzen & Fishbein, 1975), and a variety of studies shows that self-reported measures of social norms correlate with and predict many sorts of behaviors over and above attitudes, especially when the behavior occurs in social settings (Ajzen, 1991; Armitage & Conner, 2001; Eagly & Chaiken, 1993). Therefore, it makes sense to consider that (in)moral actions — such as dishonest behavior and corruption — may be predicted by social norms.

Experiments corroborate this statement by showing that honesty and dishonesty are contagious (Innes & Mitra, 2009; Robert & Arnab, 2013). That is, people are more likely to be honest when exposed to information suggesting that others are honest and dishonest when it indicates that others are dishonest. These responses were found in both high- and low-corruption cultures, such as India and the United States, respectively (Robert & Arnab, 2013). In a deception game, evidence of contagion was found in the same two countries (Innes & Mitra, 2009). However, while in India subjects became more honest in response to a social cue that is contrary to the true norm, in the U.S. a strong signal of dishonesty lead to more dishonesty (Robert & Arnab, 2013). These discoveries suggest promise for countering corrupt impulses if perceptions of norms can be reversed. They also indicate that cultural factors may play a significant role in how people react to moral issues.

Culture may also affect morality. Cultural psychologists argue that judgments about what is right or wrong are influenced by conceptions of the self which are based on culture (Shweder, 1999). Ethical rules are inherent to human culture, and some of these are enforced sanctions, such as punishment or reward (Hill, 2019). Thus, the labeling of any behavior as moral or immoral is contingent on culturally learned knowledge, which dictates which rules and standards are considered right or wrong. Indeed, research has shown that corruption can be socially learned (Tavits, 2010), and most individuals who engage in corrupt behaviors do not even recognize that the behavior is wrong. On the other hand, social and moral norms characteristically go against self-interest, have sanctions attached to their violation, and involve a shared expectation one ought to observe and others expect one to observe as well (Bicchieri, 2006). Therefore, self-interest constitutes one of the main reasons for an individual to engage in dishonesty and corruption, though dishonest and corrupt behaviors might be motivated by many other factors (Tavits, 2010).

In the scope of this research, we use the terms corruption (or corrupt behavior), dishonesty (or dishonest behavior), and ethical (or unethical) behavior. The latter has been employed as the most generic, meaning behaviors that violate widely accepted moral norms (Kish-Gephart et al. 2010), including norms concerning professional conduct or norms regulating interpersonal relationships in a large variety of social settings. We consider that unethical behaviors encompass both dishonest and corrupt behaviors. Dishonest behavior, on its turn, consists of a term that is more specific than unethical behavior but less specific than corrupt behavior, comprising actions that incur cheating and lack of probity, causing damage to third parties. Finally, corruption is the most specific term. We consider corruption the behavior of public and private officers that involve deviance from their assigned tasks, chasing private interests, and/or obtaining status and financial gains. Unlike dishonesty, corruption necessarily involves the misuse of public resources for pursuing power and/or political gains (Lindgreen, 2004). Therefore, any regular citizen may be dishonest but only someone who holds a position of power is able to be corrupt. But to what extent do social norms and the cultural context influence engagement in dishonest and/or corrupt behavior?

This doctoral dissertation intends to answer this question by conducting three studies to assess the impact of social norms and the cultural context on dishonest behavior and corruption intentions. Study 1 investigates whether self-reported norms, attitudes, and perceived behavioral control on a series of selected petty dishonest behaviors may work as predictors of intentions of engaging in corruption. In this study, the criterion variable consists of scenarios that were presented to participants to measure their intentions of engaging in corrupt behavior. Thus, we intend to assess whether holding stronger intentions to engage in petty dishonesty may significantly predict corruption in hypothetical scenarios.

In Study 2, we seek to advance the investigation conducted in Study 1 by evaluating how participants behave in a laboratory setting. Specifically, in this study, we aim to check

whether the manipulation of the descriptive norm of cheating perpetrated by a confederate will influence participants' behavior in a task aimed at measuring (dis)honesty. We also intend to investigate whether self-reported descriptive norms of petty dishonesty may work as predictors of dishonest behavior in the laboratory.

Finally, study 3's objective consists of investigating predictors of dishonesty at a broader level. Specifically, we intend to use secondary data to assess the impact of cultural and individual variables on dishonest behavior. In this study, cultural variables consist of the Corruption Perception Index (CPI) computed in 2019, the tightness score (Gelfand et al., 2011), information on the countries' years of democracy (Cohn et al., 2019), the share of Protestants (Ashraf & Galor, 2013), and income inequality (World Bank, 2021). Individual difference variables comprise age and gender (Cohn et al. 2019) while the criterion variable consists of a behavioral measure of civic honesty (Cohn et al., 2019). Although social norms are not directly measured in Study 3, they are indirectly measured through the tightness score — which measures tolerance for variability and openness for deviant behaviors across societies (Carpenter, 2000). We thus intend to test the applicability of well-established theories that are usually based on samples drawn entirely from western, educated, industrialized, rich and democratic (WEIRD) societies (Henrich et al., 2013) to a society that is non-WEIRD population to assess if the findings based on the latter sample may be generalizable to the former one.

In summary, throughout these three studies, we assess variables that may impact self-reported corruption (Study 1) and actual engagement in dishonesty (Studies 2 and 3). In Studies 1 and 2, we focus on evaluating the predictive role of social norms and the elements of the Theory of Planned Behavior whereas Study 3's main goal is to evaluate the impact of cultural variables. By adopting a multi-method approach to evaluate factors that influence dishonesty and corruption, we expect to arrive at more robust and reliable results.

Abstract of Study 1

In this research, we investigate the effect of group identity, amount of money, and type of action on engagement in corrupt behavior. We conducted a 2 x 2 x 2 experiment in which participants responded to scenarios where they stated how likely they were to engage in corruption. In these scenarios, group identity (ingroup or outgroup), the amount of money at stake (high or low), and type of action (passive or active) were manipulated to evaluate their influence on this ethical decision-making process. We also tested past dishonest behavior and social norms (injunctive and descriptive ones) as predictors of corruption intentions. Our main results are: (i) participants who admitted to having engaged in past dishonesty more often reported stronger intentions of corrupt behavior; (ii) descriptive norms were significant predictors of corruption intentions; (iii) individuals tended to engage in corruption more often when dealing with ingroup members and lower amounts of money. These results indicate that individuals who engage in petty dishonesty may be more corruptible. Our findings also suggest the relevance of investing in public policies to make norms of honesty salient in order to prevent corruption and that negotiations be held among ingroup members should be impeded.

Keywords: social identity theory; ingroup favoritism; moral decision-making; social norms; dishonest behavior.

Study 1: The influence of group identity, amount of money at stake, and type of action on intentions of engagement in corruption

Corruption consists of a global issue that places a heavy toll on countries' development efforts, for it diverts funding away from the intended parties (Runde & Metzger, 2020). In fact, the estimated amount of money lost due to corruption globally comprises $2 trillion a year (Thomson, 2017). Consequently, countries may fail to address basic needs, such as health (Bellows, 2020; Dyer, 2006), education (Ferraz et al., 2009; Poisson, 2010), and safety (Runde & Metzger, 2020). Since corrupt practices constrain economic growth and prevent nations from becoming self-reliant (Runde & Metzger, 2020), developing countries may bear the most disproportionate share of the costs of corruption. Increased corruption is positively correlated with income inequality (Gupta et al., 2002; Gyimah-Brempong, 2002) and low-income countries with weak governing institutions and poor rule of law are the ones that are the most prone to corruption (Runde & Metzger, 2020).

On the other hand, dishonesty consists of lying as the result of trading-off the potential benefits of it against the potential costs, each weighted by their probability of occurrence according to a purely economic standpoint (Thielmann & Hilbig, 2019). However, from a psychological point of view, individuals not only consider potential material costs of lying but also psychological costs in terms of a threat to one's moral self-image (Fischbacher & Föllmi-Heusi, 2013; Mazar et al., 2008; Pascual-Ezama et al., 2015). Dishonesty is considered a broader term, comprising actions that incur cheating and lack of integrity, causing damage to third parties. Unlike dishonesty, corruption necessarily involves the misuse of public resources for pursuing power and/or political gains (Lindgreen, 2004), being generally defined as the "abuse of entrusted

power for private gain" (Transparency International, 2021. Any regular citizen may be dishonest, but only someone who holds a position of power can be corrupt.

The presence of others consists of a fact that is essential when deciding to engage in dishonest or corrupt behavior, not only being relevant in situations in which individuals share the social utility of their behavior but also when others help to establish a pattern for ethical behavior. What is considered to be a proper or expected behavior is negotiated and understood through social interaction (Rimal & Lapinski, 2015). That is, people learn about and negotiate norms of conduct through interpersonal discussions, direct observations, and interactions through information conveyed by the means of communication (Chung & Rimal, 2016). Through observation, one can determine how often this behavior is in a particular environment, and it becomes possible to draw the dividing line between ethical and unethical acts (Gino et al., 2009).

This study tests whether experimental manipulations (the amount of money at stake: high or low, group identity: ingroup or outgroup, and type of action: active or passive) may influence intentions of engagement in corruption. It also investigates whether past acts of dishonesty, as well as social norms, can predict intentions to engage in corrupt behavior.

Social norms, dishonesty, and corruption

Upon engaging in any sort of behavior, individuals look for situational clues, which indicate whether this behavior is acceptable or not in that specific circumstance. These clues may consist of rules that constrain the behavior by eliciting conformity, being known as social norms (Bicchieri & Mercier, 2014). According to the social norm theory (Cialdini et al., 1990), the social context determines which type of norms people follow at a certain time and how these norms interfere with the immediate behavior of an individual. There is usually an interactive

effect between injunctive and descriptive norms such that the effect on behavior is strongest when injunctive and descriptive norms align (Oliver et al., 2019; Rimal, 2008).

If the social context highlights descriptive norms that support socially undesirable behaviors, it helps people to justify their behavior, reducing dissonance as a result. Conversely, when the social context highlights injunctive norms that contradict these behaviors, the dissonance is increased. For instance, Baumgartner et al. (2011) reported that individuals justified risky sexual online behavior by claiming that others did the same thing to avoid cognitive dissonance when engaging in it. Furthermore, adolescents may cognitively normalize their behavior by judging their peers' behavior and approval by exaggerating the number of friends who engage in it (Baumgartner et al., 2011). By doing so, individuals seem to ultimately downplay the possible negative consequences of such behavior.

Another factor that may influence the extent to which individuals follow rules is how prevalent rule violation is in a particular place (Keizer et al., 2008). If cheating is profoundly embedded in a certain society and goes legally or socially unpunished, individuals may start to see daily dishonesty as justifiable and acceptable. In a similar vein, when an individual encounters a corrupt behavior frequently, this person may progressively become desensitized to it so that, as time passes by, it causes less moral discomfort (Bandura, 2016; Harmon-Jones & Mills, 2019). Consequently, acting dishonestly may not compromise one's self-concept of honesty any longer (Gino et al., 2009).

Furthermore, individuals who commit daily acts of dishonesty may be more inclined to perform more and more of them in the future (Bicchieri & Ganegonda, 2016). Past behavior guides future responses in that the processing that controls well-practiced behaviors in constant contexts becomes automatic (Ouellette & Wood, 1998). On the other hand, when behaviors are not well learned or when they are performed in unstable contexts, conscious decision-making is

usually necessary to carry them out. Under these conditions, past behavior may contribute to intentions, and the current behavior is guided by these intentions (Ouellette & Wood, 1998). In a similar vein, feedback about past behavior has a direct effect on individuals' attitudes and ultimate behavioral decisions that were independent of the outcome-specific cognitions (Albarracín & Wyer, 2000). This effect was observed even when individuals had not performed an action in the past but were induced to believe so (Albarracín & Wyer, 2000). Based on this evidence, it is reasonable to expect that past engagement in dishonesty be a significant predictor of engagement in more dishonest behavior or corruption.

Group identity, amount of money, and type of action

Social identity theory (Tajfel, 1982) suggests another critical aspect that may affect the way people interpret others' behavior: the extent to which they identify with others. This theory considers the role of self-concept and associated cognitive processes as well as social beliefs in group processes and intergroup relations (Hogg, 2016). Whether large demographic categories or small task-oriented teams, social groups provide their members with a shared identity that prescribes and evaluates who they are, what they should believe, and how they should behave (Hogg, 2016). They also highlight how the ingroup is distinct from relevant outgroups in a particular social context (Hogg, 2016).

Individuals tend to cooperate more when interacting with others sharing the same group identity (ingroup members) (McLeish & Oxoby, 2007; Weng & Carlsson, 2015). When people share identity characteristics, unfair distributive decisions do not trigger a dishonest reaction; however, when different group identities coexist, dishonest behavior may be observed as a reaction to unfairness (Della Valle & Ploner, 2017). In contrast, when interacting with members of other groups, individuals tend to display less cooperation (Charness & Jackson, 2007;

McLeish & Oxoby, 2007) and coordination (Chen & Chen, 2011; Chen et al., 2014). Indeed, Modesto (2018) reported that, upon participating in an experimental task that involved competition, participants were more inclined to be more dishonest when the task was performed in a group rather than individually. Besides, they were more prone to cheat to harm outgroup members instead of doing that to obtain benefits for ingroup members. Individuals are also more likely to practice an immoral behavior if this behavior is accepted or promoted by relevant others, such as parents and friends (Kam et al., 2018). Therefore, when individuals observe unethical mistakes of ingroup members, they tend to feel more comfortable with loosening their ethics code.

When identification is high, others' behaviors tend to have a more significant influence on observers than when it is low. An extensive study obtained evidence for this theory (Wenzel, 2004). In fact, a high risk of exclusion from one's group predicted engagement in pro-group unethical behaviors when the group member had a high need for inclusion (Thau et al., 2015). Furthermore, there is a higher probability that individuals will engage in dishonest behavior after having experienced unfairness perpetrated by an individual with a salient group identity (Della Valle & Ploner, 2017).

There is also a relationship between social identification and conformity to salient ingroup norms (Falomir-Pichastor et al., 2009). However, this trend is only found when there is a strong identification with the group (Masson & Fritsche, 2019). This relation holds even more robust for peripheral members, who are hoping to stay in the group and become more similar to other ingroup members (Masson & Fritsche, 2019). Therefore, when there is either weak identification or when high-identifiers are prototypical, group members may be open to deviant intentions of behavior. Based on this evidence, we expect that corruption be more frequent when dealing with ingroup members in comparison with outgroup members (Hypothesis 1). Nevertheless, it is

important to highlight that, in this study, we did not measure group identification but we assessed whether group categorization in hypothetical scenarios affected the decision of engaging in corruption.

One possible consequence of being dishonest is a lower self-concept of honesty. Indeed, individuals tend to behave more dishonestly when faced with the opportunity but not to the maximum extent (Fischbacher & Föllmi-Heusi, 2013; Mazar et al., 2008; Pascual-Ezama et al., 2015). As dishonesty is psychologically costly, individuals tend not to want to lie to obtain very small profits (Shalvi et al., 2011), but, at the same time, very large incentives can result in less cheating, for higher incentives increase the perception of the severity of dishonesty, generating higher psychological costs (Hilbig & Thielmann, 2017). Thus, profits must be worthwhile but not to the point of being disproportionate, exceeding the corresponding psychological costs (Thielmann & Hilbig, 2019). By considering this rationale, we expect that corruption will be more frequent when dealing with low amounts of money in comparison with high ones (Hypothesis 2).

Acts of omission that result in negative outcomes are generally considered more acceptable than acts of commission which incur the same type of result — a tendency that is called omission bias (Ritov & Baron, 1990). This tendency of judging inactions as less severe than actions that cause negative outcomes is a consistent phenomenon reported across several domains (Bar-Eli et al., 2007; Pittarello et al., 2016). In fact, individuals are more likely to refrain from telling the truth than actively lying when they face the temptation to benefit from dishonesty (Pittarello et al., 2016). This happens because there is reluctance in individuals to assign responsibility when dishonesty takes the form of omission if compared to commission. For this reason, dishonest behaviors that take more passive forms are considered more acceptable compared to the ones that take more active forms (Tenbrunsel & Messick, 2004). Therefore, it is

reasonable to conceive that corruption will be more frequent when engaging in active actions in comparison with passive ones (Hypothesis 3).

This study tests the effect of the manipulation of three factors (group identity, amount of money, and type of action) on corruption intentions in hypothetical scenarios. Therefore, group identity, amount of money, and type of action are independent variables of the study while the responses to the hypothetical scenarios consist of the dependent variable. We expect that participants will tend to show stronger intentions to engage in corruption when the scenario involves an ingroup member (Hypothesis 1), a lower amount of money (Hypothesis 2), and a passive type of action (Hypothesis 3). This study also intends to assess the role of past dishonest behavior and social norms as predictors of corrupt behavior in the scenarios.

Method

Participants

This study has a repeated-measures design in which each participant was submitted to evaluating scenarios that contained three group manipulations (amount of money at stake, group identity, and type of action). Our sample size was determined by a power analysis which suggested that we would need at least 183 participants to detect an effect size of .10, relying on an alpha of .05, power of .8, and three groups. In this study, we adopted an effect size of .10 because it is considered small, according to Cohen (1988). Funder and Ozer (2019) also affirmed that an effect-size r of .10 indicates an effect that is still small at the level of single events but potentially more ultimately consequential. Since we did not know of any similar research that had been conducted under similar conditions, we had no previous effect size to aim to and has to speculate what effect size we could find. Thus, we decided to be conservative and estimated a

small effect size. Nevertheless, we aimed to recruit 300 participants to account for possible exclusions.

Participants were obtained through convenience sampling, and a total of 300 people answered the survey. We detected one outlier, which was then removed from the sample. Thus, the sample was composed of 170 women and 130 men, with a mean age of 28.8 years. As for education, 32.2% reported to have finished high school, 27.6% have completed an undergraduate course, and 39.9% are graduate students. Almost the entire sample was composed of Brazilian people (99.1%). Their average monthly income ranged from R$ 3,816.01 to R$ 4,470.00 (from approximately US$ 624.74 to US$ 876.52).

Measures and materials

Corruption Scenarios. Scenarios were presented to the participants to measure their intentions of engaging in corrupt behavior. They comprised 16 items that were developed in the scope of this research. All of them required that participants pictured themselves either as public officers or as regular citizens who had to decide on whether to engage or not in corrupt behavior. Participants indicated their perceived likelihood to engage in corruption in each situation, ranging from 1 = very unlikely to 10 = very likely.

When creating the scenarios, we intended to manipulate three factors that may play a part in engaging in such type of behavior, such as situations in which high/low sums of money were at stake, ingroup/outgroup identification, and passive/active action. Our dependent variable (DV) consisted of the participants' responses to the scenarios while our independent variables (IV) consist of manipulations of the amount of money, group identity, and type of action. An example of item is as follows: "You hold a position of public interest and are responsible for contracting with a construction company. The estimated value of the contract is R$ 10 million. You have a

friend who is an expert in the field, and he proposes that you close the deal with him for R$ 16 million and that, in exchange, he will split the difference and give R$ 3 million to you". In this case, the item involved a high amount of money, an ingroup member and passive corruption (Appendix A for all items).

Social Norms. Information on injunctive and descriptive norms about three types of dishonest behaviors was gathered: jumping a waiting line, not giving wrong additional change back, and not offering a seat to an elderly person on a bus. An example of an injunctive norm item is "My friends think there is nothing wrong in jumping a waiting line" and one of the descriptive norms is "My friends jump waiting lines". We initially conducted an exploratory factor analysis with direct oblimin rotation method and considered applying two separate measures for descriptive and injunctive norms. However, we noticed that both dimensions were highly correlated, $r\ (300) = .85$, $p<0.01$. Besides, when conducting regression analysis, we observed a VIF (Variance Inflation Factor) higher than 4 for both dimensions, which indicates collinearity (Johnston et al., 2018). Thus, we decided to collapse the two types of norms in one single dimension of social norms and conducted another exploratory factor analysis with principal axis factoring. This measure was answered at a 5-point Likert scale (1= Strongly agree, 5= Strongly disagree) (see Appendix B for all items). Factorial loads varied from .56 to .66, as can be seen in Table 1, and Cronbach's alpha for the measure was .91.

Table 1

Factor Loadings, Reliability Coefficient, and Percentage of Variance for the Social Norms Measure

Items	**Factor loadings**
Social norms	
1. My family members think there is nothing wrong in jumping a waiting line.	.66
2. My family members believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.	.61
3. My family members think that there is nothing wrong in receiving extra change by mistake and not giving it back.	.65
4. My friends think there is nothing wrong in jumping a waiting line.	.62
5. My friends believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.	.61
6. My friends think that there is nothing wrong in receiving extra change by mistake and do not giving it back.	.66
7. People in general think there is nothing wrong in jumping a waiting line.	.58
8. People in general believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.	.56
9. People in general think that there is nothing wrong in receiving extra change by mistake and do not giving it back.	.64
10. My family members jump waiting lines.	.60
11. My family members see an elderly person and do not offer his or her seat on a bus.	.62
12. My family members receive extra change by mistake and do not give it back.	.64
13. My friends jump waiting lines.	.58
14. My friends see an elderly person and do not offer his or her seat on a bus.	.58
15. My friends receives extra change by mistake and do not give it back.	.61
16. People in general jump waiting lines.	.57
17. People in general see an elderly person and do not offer his or her seat on a bus.	.53
18. People in general receive extra change by mistake and do not give it back.	.63
% of explained variance	40.52%
Cronbach's alpha (α)	.91

Past Dishonest Behavior. We created three items in the scope of this research to assess dishonest behavior that was performed in the past. It is comprised of three items, such as "I have

already jumped a waiting line" and "I did not give additional change back when I received it by mistake". Participants answered them on a 5-point Likert scale (1= Never, 5= Always) (see Appendix D for all items). We used the mean of the three items as a measure of past dishonest behavior.

Sociodemographic measures. The following information was collected: gender, educational level, age, and income. Gender was measured in a binary way (1= Male, 2= Female). Educational level was measured at four points (1 = Finished elementary school, 2 = Finished high school, 3 = Finished undergraduate degree, 4 = Graduate degree). Age was informed by the participants through an answer to the open question "what is your age?". Income was reported by using a 9-point scale, ranging from "up to a minimum wage" to "over 15 minimum wages" (1= up to R$ 954.00 to 9 = over R$ 14,310.01). We also collected information on whether respondents were public officers or not (1= No and 2= Yes).

Procedure

The research was carried out individually on the Internet, and the manipulations (amount of money at stake, group identity, and type of action) occurred through the situations presented in the Corruption scenarios. Items to represent the manipulations were implemented in a set of questionnaires on Google Forms and were publicized on social media. The questions were answered in the following order: First, participants answered the Social Norms measure and then the Past Dishonest Behavior measure, then they responded to the Corruption Scenarios and the Sociodemographic measure.

The study has a 2 (group identity: ingroup or outgroup) x 2 (amount of money: high or low) x 2 (type of action: active or passive) within-subjects design. There were 2 items to represent each combination of factors, totalizing 16 items, which were answered by each

participant in the exact same order. Independent variables in this research are the three variables manipulated in the scenarios (group identity, amount of money, and type of action) while dependent variables consist of the answers to the scenarios (see Appendix A for all variables). The obtained values were analyzed through univariate regression analyses that followed a forward selection procedure, and a repeated-measures ANOVA was performed on SPSS 22.0.

This study strictly followed the Ethical Principles in the Conduct of Research with Human Participants proposed by the American Psychological Association. Participants were informed about the research purposes, the risks involved in taking part in the research, the confidentiality and anonymity of the participation. Participants explicitly informed their consent to participate in the study by checking a box and were free to quit the participation at any moment. No personal information was collected to preserve participants' anonymity. We have complied with all ethical procedures descripted in the Publication Manual of the American Psychological Association in this study (American Psychological Association, 2019).

Results

A multiple regression analysis was performed to test social norms, past dishonest behavior, and the sociodemographic variables were as predictors of corruption intentions (see Table 2). We firstly checked if the assumptions to run the regression analyses had been met (linearity, autocorrelation, multicollinearity, and heteroskedasticity; Williams et al. 2013). Linearity and heteroskedasticity were assessed through the analysis residual versus fitted value plots. Autocorrelation was analyzed by observing Durbin – Watson (DW) statistic. In this analysis, we found a value of 1.998, indicating that the data are not autocorrelated (Montgomery et al., 2001). We checked the assumption of multicollinearity by analyzing VIF and tolerance values. VIF values ranged from 1.05 to 1.10 and tolerance values were all above .1, ranging from

0.90 to 0.98. These parameters indicate that multicollinearity does not consist of a problem in the analysis (Johnston et al., 2018).

When performing the multiple regression analysis, corruption intentions were used as a criterion variable by calculating the average of the responses to all corruption scenarios while social norms, past dishonest behavior, gender, age, income, educational level were the predictor variables in the model. However, prior to conducting this analysis, we investigated whether being a public officer would interfere in the answers and controlled for it by conducting a step-wise multiple regression with method enter. We placed the information about being a public officer in the first step and the other variables in the second step.

We noticed that the model that only contained the information about being a public officer was not significant, R^2= 0.003, adjusted R^2= -0.001, $F(1, 294) = 0.80$, $p = 0.37$. Nevertheless, when we added the other variables, we observed that it improved significantly, R^2= 0.11, adjusted R^2= 0.09, $F(6, 289) = 6.02$, $p < 0.01$, and thus we decided to proceed with the analysis without controlling for being a public officer (see Table 2). We found that participants who admitted to having engaged more in dishonesty in the past reported stronger intentions of corrupt behavior. Gender and educational level were also significant predictors. However, there was not a significant effect of social norms on corruption intentions.

By performing correlation analyses (Table 2), we could notice that past dishonest behavior and social norms. As for sociodemographic variables, there were significant correlations between gender and corruption intentions, gender and past dishonest behavior, educational level and corruption intentions, age and educational level, and income and educational level.

Table 2

Summary of a Multiple Regression Analysis and Bivariate Correlations Using the Corruption Scenarios as the Criterion Variable and Social Norms, Past Dishonest Behavior, Gender, Age, Income, Educational Level as Predictor Variables (N=300)

Variables	Corrup	SN	Past	Gender	Age	Income	Educ	β	SE	LL	UL
Corrup	-	.09	.32+	-.16+	-.002	-.13+	-.25+	-	-	-	
SN		-	.28+	.02	-.04	-.01	.01	.02	.09	-.14	.22
Past			-	-.12*	-.08	.09	-.08	.28+	.11	.32	.74
Gender				-	-.11	-.09	.06	-.11*	.12	-.49	-.004
Age					-	.09	.36+	.10	.01	-.004	.02
Income						-	.16+	-.08	.03	.11	.02
Educ							-	-24+	.08	-.46	-.16
R^2	.18										
Adj R^2	.16										
F	10.43+										

*p< .05, +p < .01

Corrup = Corruption scenarios, SN= Social norms, Past = Past dishonest behavior, Income = Income, Educ = Educational level, β = Standardized regression coefficients, SE = Standard error, LL = Lower limit of 95% confidence intervals for beta weights, and UL = Upper limit of 95% confidence intervals for beta weights.

A repeated-measures ANOVA was performed to assess the effect of group identity, amount of money, and type of action on corruption scenarios. We have checked for the assumptions of normality and sphericity. By plotting a boxplot, one outlier was spotted and removed from the sample. Normality assumption has been checked through the observation of skewness and kurtosis values, which ranged from -0.26 (SE=0.14) to 1.87 (SE=0.14) and from -1.94 (SE=0.28) to 4.62 (SE=0.28), respectively. Considering that the normality thresholds of 2.0 and 7.0 are suggested for skewness and kurtosis when assessing multivariate normality (Curran et

al., 1996), we considered that this assumption has been met. On the other hand, Mauchly's sphericity test indicated that the sphericity assumption has been violated, and we used a Greenhouse-Geisser correction to report the results. There was a significant effect of the group identity manipulation on corruption intentions, $F(1, 298) = 87.84$, $p < .001$, $\eta^2p = .228$, with people reporting to be more corrupt when dealing with ingroup members in comparison with outgroup members. There was also a significant effect of the amount of money at stake, $F(1, 298) = 5.26$, $p = .02$ $\eta^2p = .017$, with participants reporting stronger intentions of engaging in corruption when dealing with low amounts of money in comparison with higher ones. Regarding the type of action, there was not a significant effect on engagement in corruption, $F(1, 298) = .39$, $p = .53$, $\eta^2p = .001$. See Table 3 for means and standard deviations of corruption intentions among the different groups.

Table 3

Interaction of Group Identity with Amount of Money and Type of Action

Type of Group	Amount of Money	Type of Action	Mean	Standard Error	Confidence Interval 95%	
					Lower Limit	Upper Limit
	High	Passive	3.46	0.18	3.11	3.80
Ingroup	High	Active	3.81	0.19	3.44	4.19
	Low	Passive	4.03	0.23	3.57	4.49
	Low	Active	4.04	0.23	3.58	4.49
	High	Passive	2.61	0.13	2.35	2.87
Outgroup	High	Active	2.52	0.11	2.31	2.76
	Low	Passive	2.72	0.11	2.49	2.95
	Low	Active	2.63	0.14	2.36	2.90

Moreover, some significant interactions that cannot be removed by monotonic transformation were found. There was a marginal interaction between group identity and the amount of money at stake, $F (1, 298) = 3.38$, $p = .07$, $\eta^2p = .011$ and a significant effect of the interaction between group identity and type of action, $F (1, 298) = 6.09$, $p = .01$, $\eta^2p = .020$. Conversely, a significant effect of the interaction of amount of money and type of action on corruption was not found, $F (1, 298) = 2.75$, $p = .10$, $\eta^2p = .009$. The interaction effect of the three dependent variables on corruption was not significant as well, $F (1, 298) = 2.50$, $p = .12$, $\eta^2p = .008$.

Discussion

We found that past dishonest actions predicted and as significantly correlated with corruption intentions. This aligns with the report of Ouellette and Wood (1998), which pointed out that the frequency of past behaviors reflects habit strength and has a direct effect on future performance. It also suggests that even small acts of dishonesty must be confronted to prevent corruption. In fact, Keizer et al. (2008) reported that the extent to which individuals follow the rules depends on how prevalent rule violation is in a particular place. As lack of legal or social punishment may lead individuals to start to see daily dishonesty as justifiable and acceptable (Keizer et al., 2008), we can infer that cheating must, therefore, be confronted, even if it is petty and does not cause major detrimental consequences.

However, we found social norms were not significant predictors of corruption intentions. This result contradicts the report of Bicchieri and Mercier (2014), in that participants in this study did not seem to look for situational clues that indicate whether behaviors are acceptable in specific circumstances. They also do not support the report of Baumgartner et al. (2011), which stated that individuals tend to justify a socially undesirable behavior by claiming that others did

the same thing, helping to avoid cognitive dissonance. These contrasting findings may be accounted for by the fact that the predictor variables analyzed consisted of injunctive and descriptive norms related to a different variable: petty dishonesty actions. The criterion variable, in turn, consisted of the responses to scenarios involving corruption. Although these variables are related, the concepts of dishonesty and corruption are divergent. Moreover, in this research, we relied on self-reported data, which may not correspond to what actually happens. Thus, we recommend that future studies on the influence of social norms on engagement in dishonest behavior/corruption be conducted in more realistic conditions (e.g., a laboratory setting).

It is also worth mentioning that there was a significant positive correlation between social norms and past dishonest behavior, which may mean that believing that others expect one to act dishonestly and actually act dishonestly may be related with performance of dishonest behavior. This finding supports the reports that what is considered to be a proper or expected behavior is negotiated and understood through social interaction (Rimal & Lapinski, 2015) and that people learn about and negotiate norms of conduct through interpersonal discussions and direct observations (Chung & Rimal, 2016). Besides, gender was a significant predictor and was negatively associated corruption intentions, in that males tended to report more intentions to engage in corruption in the scenarios. Interestingly, males also reported to have engaged more in dishonest behavior in the past. These results are aligned with reports that females present a higher level of honesty (Arbel et al., 2014; Shum et al., 2020).

We also found that income was negatively associated with corruption intentions, in that people with lower income tended to report stronger intentions to engage in corruption. Considering that Brazil is a highly unequal society (Signor et al., 2019), this may have happened because poorer people may have stronger motivations to obtain financial gains to improve their

socioeconomic status. In fact, making comparisons between themselves and others in terms of economic status happens often in unequal societies (Cheung & Lucas, 2016), which exacerbates the need for more money (Payne et al., 2017). Furthermore, it has been shown that unequal societies in which people have a strong need for money show less civic honesty (Du et al., 2020). We also found that there was a positive significant association of age and income with educational level, indicating that individuals with higher educational level tend to be older and have higher income. Finally, a lower educational level predicted more intentions to engage in corruption in the scenarios, suggesting that individuals with less access to formal education show stronger intentions to engage in corruption. Engaging in corruption and obtaining financial gains to improve socials status may also be a possible explanation for this result.

In this research, we found a significant difference concerning corruption intentions when participants negotiated with ingroup members in hypothetical scenarios in comparison with outgroup members (Hypothesis 1 accepted). This difference is in line with the social identity theory (Tajfel, 1982), which states that individuals tend to favor members of their groups to the detriment of others. Indeed, when dealing with a friend, who is presumably an ingroup member, participants admitted to being more likely to accept or offer a bribe, which would bring financial gains to both the participant and the ingroup member. This is in agreement with the proposition that individuals tend to feel comfortable with losing their ethic code when they observe unethical mistakes of ingroup members (Wenzel, 2004) and with the report that there is a higher probability that individuals will engage in dishonest behavior after having experienced unfairness perpetrated by an individual with a salient group identity (Della Valle & Ploner, 2017).

We also found that individuals were more corrupt when a lower payout was involved (Hypothesis 2 accepted). This might have happened because handling lower amounts may be

more excusable and causes less damage to one's self-concept of honesty. This result supports the findings of Hilbig and Thielmann (2017), suggesting that higher incentives increase the perception of the severity of dishonesty, incurring higher psychological costs. It is also in line with Thielmann and Hilbig (2019)' statement that profits must be worthwhile but not to the point of being disproportionate, for this disproportion would cause high psychological costs.

We did not find a significant tendency for participants to engage more in corruption when it involved passive actions in comparison with active ones (Hypothesis 3 accepted). This result does not support reports that omissions that result in negative outcomes are considered more acceptable than acts of commission that cause the same outcomes (Bar-Eli et al., 2007; Pittarello et al., 2016). It also contradicts the claim of Tenbrunsel and Messick (2004) — which suggests that dishonest behaviors that take more passive forms are considered more acceptable compared to the ones that take more active forms — and the works of Bar-Eli et al. (2007) and Pittarello et al. (2016) — which reported that there is a tendency of judging omission as less severe than commission upon causing negative outcomes. However, the significant interaction with group identity could suggest that the omission bias is only present when considering the effect of ingroup favoritism. Future research is encouraged to explore this relationship.

This study also contains some limitations. Firstly, data about group identification have not been collected. Since there is a consistent relationship between social identification and conformity to salient ingroup norms (Falomir-Pichastor et al., 2009), especially when there is a strong identification with the group (Masson & Fritsche, 2019), it is relevant to gather information about the strength of group identification. Besides, the relation holds even more robust for peripheral members, who are hoping to stay in the group and tend to make stronger efforts to become more similar to other ingroup members (Masson & Fritsche, 2019). In this research, it is not possible to know to which degree participants identified with the group as well

as whether they consider themselves as peripheral or prototypical group members. It is encouraged that further research be conducted on the role of group identification in moral judgment and compliance with norms.

Secondly, the sample was not randomly drawn, seeing that we adopted convenience sample as the sampling method. Thirdly, the nature of the recruitment was such that a relatively young and highly educated group of participants was included, which may have incurred some sort of bias. Fourthly, the questions and measures in this research were not presented in a randomized order, and our analysis could have been affected by order effects, which are caused by exposing the subjects to multiple treatments. For instance, it may be possible that scores have decreased over time due to fatigue or increased due to learning. Thus, order effects may have interfered with the analysis' ability to correctly estimate the effect of the treatment itself. Future studies are encouraged to carry out a similar type of analysis but apply the measures in a random order to avoid a possible order bias in the responses collected. Finally, we must recognize that, when dealing with ethical and moral issues, participants tend to provide socially desirable answers, which consists of an inherent trait in research in social psychology. In an attempt to circumvent this issue in future studies, other types of research designs could be employed, such as laboratory, field, and natural experiments. One possibility consists of an incentive-compatible experiment that exogenously varies conditions and allows participants to make actual decisions with consequences. By doing so, manipulations could be implemented in such a way that researchers could observe behaviors directly and not rely only on participants' answers, which are prone to socially desirable response biases. It is also encouraged that replications be performed to assess whether the results found in this study will be consistent when applied to a different sample.

This study has also brought some contributions to the advancement of the literature on moral judgment and dishonest behavior. Firstly, we provided further evidence of the impact of ingroup identity, amount of money, and type of action on corruption intentions. Secondly, the study sheds light on other relevant predictors of engagement in corruption (past dishonest behavior and descriptive norms), also strengthening the reports present in the literature on dishonest behavior. Finally, testing the applicability of well-established theories to non-WEIRD populations such as Brazil is crucial since these theories are usually based on samples drawn entirely from WEIRD societies, and the findings based on the latter sample may not be generalizable to the former one (Henrich et al., 2013). We believe that the effect of these predictors is of relevance and should be considered by policy-makers in the elaboration of policies aimed at preventing corrupt and dishonest acts in the future.

Abstract of Study 2

This research's major objective consisted of assessing the effect of a manipulation of peer descriptive norms on dishonest behavior. Specifically, we analyzed to what extent an interaction with an ingroup member would influence participants towards cheating in a task to obtain more money. A laboratory experiment with 198 participants in which a confederate interacted with the experimental group participants, telling them how to act to achieve the maximum reward in a task was performed. We found that the tip provided by the confederate led individuals toward being more dishonest in comparison with the control group. Besides, a significant negative relationship between descriptive norms and self-esteem has been found, which may indicate that individuals with low self-esteem are more prone to have a negative perception of the world. These results suggest that making descriptive norms of honesty salient as well as working toward promoting enhancement of individuals' self-esteem may reduce engagement in dishonest behavior.

Keywords: dishonest behavior; social norms; social identity theory; group identity; self-esteem.

Study 2: Following the crowd: The effects of descriptive norms and self-esteem on dishonest behavior

Individuals' moral judgment toward dishonesty is strongly influenced by their belief about dishonesty among people around them (Allcott, 2011; Ferraro & Price, 2013; Fischer & Huddart, 2008; Goeree & Yariv, 2015; Innes & Mitra, 2013; Mitra & Shariar, 2020; Zafar, 2011). Other individuals' unethical behavior may have an impact on the observer's behavior in three possible ways: (1) changing the estimated likelihood of being caught and therefore increasing one's propensity to act dishonestly; (2) decreasing one's propensity to act dishonestly by increasing saliency of dishonesty; and (3) engaging in less dishonesty when the observed other is an outgroup member (Gino et al., 2009). However, when the observed other is an ingroup member, other members of the group become more likely to engage in dishonest behavior (Gino et al., 2009).

In this vein, it is important to consider the role of social norms in influencing other people's behavior. Social norms consist of predominant behavioral patterns within a group which create a shared understanding of acceptable actions within that group (Nyborg et al., 2016). While injunctive norms consist of a general understanding of what is considered to be correct, descriptive ones involve actions that individuals actually perform — which sometimes may contradict what is considered to be right in some situations (Cialdini et al.,1991). Individuals comply with descriptive norms because they provide default solutions and enable coordinating with other group members whereas these individuals adhere to injunctive norms due to moral emotions, such as shame at wrongdoing (Leung & Morris, 2015). Thus, both injunctive and descriptive norms may affect people's decision-making process when acting (des)honestly.

This study's main objective is to assess the effect of descriptive norms and group affiliation on dishonest behavior. Specifically, we aim at evaluating whether (1) receiving advice from a confederate will make participants more inclined to cheat and (2) social norms of daily dishonesty are significant predictors of cheating. We also intend to conduct exploratory analyses to investigate the relationship between social norms and self-esteem.

Social norms and dishonest behavior

Dishonesty on the part of ordinary people diminishes trust, encourages negative social norms, and favors the spread of unethical behaviors (Kirchler et al., 2008; Welsh et al., 2015). Indeed, peer norms and dishonesty were found to be highly correlated in the academic context (Donse & Groep, 2013; Jordan, 2001; McCabe & Trevino, 1997; Stephens et al., 2007) and the strongest predictors of cheating in this midst (McCabe & Trevino, 1997). Notably, perceived peer disapproval (i.e., injunctive norms) of academic dishonesty negatively predicts self-reported cheating, and perceived engagement (i.e., descriptive norms) in cheating behavior significantly predicts more engagement in such behavior (McCabe & Trevino, 1997). Similarly, both injunctive and descriptive norms predict research misconduct and questionable research practices (Rajah-Kanagasabai & Roberts, 2015) as well as plagiarism (Curtis et al., 2018) among university students. Besides, perceived peer acceptability of cheating and peer cheating behavior were found to positively correlate with conventional and digital forms of academic dishonesty (Stephens et al., 2007). Indeed, students who cheated tended to report higher estimates of the percentage of students who they believe cheated at their school (Jordan, 2001), that is, their perception of descriptive norms of cheating was affected by their cheating behavior.

Moreover, changes in the perception of a descriptive norm of lying have been found to counteract the opposing impact of changes in pecuniary benefits obtained from lying (Mitra &

Shariar, 2020). More specifically, exposure to increased peer cheating has been reported to promote major rule violations while the presence of explicit or subtle rule reminders — designed to work as injunctive norms — marginally reduces minor rule violations despite not having an impact on major rule violations (Lois & Wessa, 2020). Also, descriptive norms of petty dishonesty — such as jumping a waiting line — have been found to be significant predictors of corruption intentions. Thus, it suggests that descriptive norms of dishonesty may have a stronger influence on dishonest behavior than injunctive ones do.

This stronger influence may become more apparent when looking at more specific instances. In the academic context, students often explain their cheating behavior by comparing themselves with others (Haines et al., 1986; McCabe et al., 2001), remarking the importance of perceived social norms for the justification of cheating behaviors. Gino et al. (2009) demonstrated that group membership status significantly affected unethical behavior in that when a confederate who cheated was seen as an ingroup member, other students — who were actual participants — became more prone to cheat as well. This finding has been supported by other research (Daumiller & Janke, 2019) that found an increase in cheating when the social norm made explicit by a cheating confederate suggested that cheating behavior was an acceptable way to increase performance. Besides, exposing passengers to watching eye cues along with a descriptive social norm in a messaging campaign has been found to be an effective intervention to hinder fare evasion (Ayal et al., 2019).

At the individual level, another factor that may influence engagement in dishonest behavior is self-esteem. It consists of a subjective evaluation that a person makes about oneself (Zhang, 2009), and its utility may stem from affiliation with a valuable group to being respected as an important member (Shamir et al.,1993). Considering that people are prone to defend, maintain, and increase favorable views about themselves (Baumeister, 2010; Crocker & Park,

2004; Mazar et al., 2008), they are constantly striving to improve or keep their self-esteem at the same level. When it comes to the handling of financial assets, there is an exchange between money and self-esteem which may follow three principles: (1) a high payoff may consist of an indicator of a person's competence, (2) money and self-esteem can compensate for one another, and (3) there are factors that shape people's choices between money and self-esteem such as needing the money to survive or when there is a large amount at stake (Zhang, 2009). Therefore, deciding on actions that involve monetary payoffs may not involve such a straightforward process.

High levels of self-esteem may lead to a low level of materialism, which in turn decreases corrupt intentions (Liang et al., 2016). On the other hand, research has shown that money can boost self-esteem and helps to buffer existential anxiety (Zaleskiewicz et al., 2013). In fact, female students who had their self-esteem temporarily decreased through false feedback tended to cheat more in a game of cards under circumstances that made it appear impossible to be detected (Aronson & Mettee, 1968). In another experiment, children with high self-esteem and high need for approval as well as children with low self-esteem cheated significantly more than children with high self-esteem and low need for approval (Lobel & Levanon, 1988), indicating the significant effect of both variables in cheating behavior.

This study seeks to assess whether descriptive norms of dishonesty may lead individuals to lean toward more dishonesty and to advance the literature on dishonest behavior by investigating its link with self-esteem. By performing a laboratory experiment, we expect that the manipulation of participants' descriptive norms makes cheating salient and influences their behavior toward cheating. Therefore, we suppose that this saliency will have an impact on engagement in dishonest behavior in a subsequent task. Specifically, we expect that (1) participants who receive advice from a confederate will cheat more in a subsequent task aimed at

measuring dishonest behavior and (2) social norms of daily dishonesty will positively predict participants' more cheating in this task. We also expect to find a negative relationship between the results of the dots game task and self-esteem.

Method

Participants

The research has a between-subject design in which participants were either assigned to a control or an experimental group. To define the sample size, a sensitivity power analysis was conducted using G*Power (Faul et al., 2017). We assumed a two-tailed alpha significance criterion of .05, a standard power criterion of .80, and a medium effect size (.20). The minimum sample size computed by G*Power was 200.

Similarly to Study 1, we did not know of any similar research that had been conducted under comparable conditions. Thus, we had no previous effect size to aim to and speculated what effect size we could find. In comparison with Study 1, we believed that the manipulation at a laboratory setting could be more effective and, for this reason, we stipulated a medium effect size (Cohen, 1988). According to Funder and Ozer (2019), an effect-size r of .20 indicates a medium effect that is of some explanatory and practical use even in the short run.

Due to time and resource limitations, we were only able to achieve 198 participants. The sample was composed of 111 women, 84 men, and three people declared not to fit in either gender. The mean age was 21.38 years (SD= 4.55), ranging from 18 to 49 years old. The most mentioned income brackets were "up to one minimal wage" and "between two and four minimal wages" (that is, up to R$ 998 and between R$ 998.01 and 3,992). Participants were obtained through convenience sampling, and the sample comprised undergraduate and graduate students at the University of Brasília (UnB).

Measures and materials

An adapted version of the dots game (Mazar et al., 2008), measures of injunctive and descriptive norms, as well as a measure of self-esteem were applied. Demographic measures about gender, age, income, political ideology, and educational level have also been applied.

Dishonest behavior measure. The dishonest behavior measure consisted of a task that has been proposed by Mazar et al. (2008) and was modified to fit the purpose of this study. It was performed on a computer in which participants see a series of 20 boxes divided into two parts by a vertical line with 20 dots inside of it (see Appendix E). Upon seeing each image, participants have to indicate each side of a square contains more dots. The dots are presented for four seconds and disappear right after this count. When the participants' answers are given, a new square is shown on the screen. Even though the task requires participants to indicate the half where there are more dots, payment is assigned in such a way that individuals feel tempted to state that there are more dots on the right side of the box because every time they choose the right side of the box, they receive R$.10 but, when they choose the left side, they receive nothing.

In ten of the 20 trials, the correct answer is the left side and, in the other ten, the answer is the right side. Either way, the purpose of this task is to assess whether participants have cheated, for there is an intentional conflict between giving the right answer or getting the highest reward. If participants do not cheat and answer the task correctly, they receive R$ 1.00. If they cheat to the maximum extent, they obtain R$ 2.00. Thus, the outcome of this variable consists of how much money each participant obtains in the task.

Injunctive and descriptive norms measure. This questionnaire collects information about descriptive and injunctive norms on petty dishonesty. An example of an injunctive norm item is "My friends think there is nothing wrong in jumping a waiting line" and one of the descriptive norms is "My friends jump waiting lines". Participants ought to answer the measure

on a scale ranging from (1) strongly disagree to (5) strongly agree. This measure contained questions about six types of behaviors (see Appendix F for more details). Differently from Study 1, in this study three more types of behavior have been added to the measure. The Cronbach's alpha of the dimension injunctive norms is .87 and the one corresponding to the dimension descriptive norms is .91. See Table 4 for the items' factor loadings.

Table 4

Factor Loadings, Reliability Coefficient, and Percentage of Variance for Injunctive and Descriptive Norms Measure

	Factor loadings	
Items	**Injunctive norms**	**Descriptive norms**
1. My family thinks there is nothing wrong in jumping a waiting line.	.41	
2. My family believes it is acceptable to see an elderly person and not to offer his or her seat on a bus.	.51	
3. My family thinks that there is nothing wrong in receiving extra change by mistake and not giving it back.	.48	
4. My family members believe that it is acceptable to take a candy in a store and leave without paying it.	.37	
5. My family members think that there is nothing wrong in missing a class and asking a classmate to sign the attendance list for them.	.36	
6. My family members believe that it is acceptable to borrow an object from a friend and never returned it.	.45	
7. My friends think there is nothing wrong in jumping a waiting line.	.48	
8. My friends believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.	.56	
9. My friends think that there is nothing wrong in receiving extra change by mistake and do not giving it back.	.54	
10. My friends believe that it is acceptable to take a candy in a store and leave without paying it.	.46	
11. My friends think that there is nothing wrong in missing a class and asking a classmate to sign the attendance list for them.	.29	

	Factor loadings	
Items	**Injunctive norms**	**Descriptive norms**
12. My friends believe that it is acceptable to borrow an object from a friend and never returned it.	.44	
13. People in general think there is nothing wrong in jumping a waiting line.	.48	
14. People in general believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.	.57	
15. People in general think that there is nothing wrong in receiving extra change by mistake and do not giving it back.	.54	
16. People in general believe that it is acceptable to take a candy in a store and leave without paying it.	.48	
17. People in general think that there is nothing wrong in missing a class and asking a classmate to sign the attendance list for them.	.52	
18. People in general believe that it is acceptable to borrow an object from a friend and never returned it.	.59	
		.91
19. My family members jump waiting lines.		.53
20. My family members see an elderly person and do not offer their seat on a bus.		.49
21. My family members receive extra change by mistake and do not give it back.		.47
22. My family members take a candy from a store and leave without paying for it.		.44
23. My family members miss a class and ask a classmate to sign the attendance list for them.		.41
24. My family members borrow an object from a friend and never return it.		.55
25. My friends jump waiting lines.		.49
26. My friends see an elderly person and do not offer their seat on a bus.		.56
27. My friends receives extra change by mistake and do not give it back.		.42
28. My friends take a candy from a store and leave without paying for it.		.45
23. My friends miss a class and ask a classmate to sign the attendance list for them.		.30
24. My friends borrow an object from a friend and never return it.		.44
31. People in general jump waiting lines.		.62
32. People in general see an elderly person and do not offer their seat on a bus.		.69

	Factor loadings	
Items	**Injunctive norms**	**Descriptive norms**
33. People in general receive extra change by mistake and do not give it back.		.66
34. People in general take a candy from a store and leave without paying for it.		.69
35. People in general miss a class and ask a classmate to sign the attendance list for them.		.58
36. People in general borrow an object from a friend and never return it.		.68
Cronbach's alpha (α)	.87	.91
Percentage of explained variance	17.84%	14.60%

Self-esteem. An adaptation of the Rosenberg Self-esteem Scale (RSES; Rosenberg, 1965) to a Likert-type format (Santos & Maia, 2003) was applied (see Appendix C for all items). Participants answered the scale at 5 points (1= strongly disagree, 5= strongly agree). It has an adequate internal consistency — with a Cronbach's α value of .86 — and good temporal stability — given that Pearson's correlation coefficient was equal to .90 (Santos & Maia, 2003). In this research, we obtained a Cronbach's α value of .80.

Table 5

Factor Loadings, Reliability Coefficient, and Percentage of Variance for the Self-esteem Measure

Items	**Factor loadings**
1. I feel that I am a person of worth.	.70
2. I feel that I have a number of good qualities.	.67
3. On the whole, I am satisfied with myself.	.78
4. At times I think I am no good at all.	.83
5. I certainly feel useless at times.	.78

% of explained variance	56.76%
Cronbach's alpha (α)	.80

Sociodemographic measures. The following information was collected: age and gender. Age was informed by the participants through an answer to the open question "what is your age?". Gender was measured in a binary way (0= Male, 1= Female).

Procedure

The research has a between-subject design and was carried out individually on a computer that was located in a laboratory room at the University of Brasília (UnB). Data were collected by using the software Inquisit. The 198 participants that took part in the study were divided into two groups — one in which participants received advice from a confederate and one in which they did not —, and each group was assigned to have 99 participants. They were approached in the corridors of UnB and were conducted by the experimenter to a laboratory. They were told a cover story that the study involved an assessment of attention and cognitive skills. However, the task performed was the dots game, which is aimed at evaluating participants' honesty in the face of an opportunity to cheat. Participants were randomly assigned to perform the task either with or without a confederate, depending on the condition in which they were allocated.

In the confederate condition, the confederate — who pretended to be another participant who had just completed the task — interacted with one participant at a time. As soon as the participant and the experimenter arrived in the reception area of the laboratory, the confederate, which was already waiting there, approached the experimenter to let him/her know that she had finished the task. The confederate informed having earned the maximum reward (R$ 2.00) and was then paid in front of the participant. He/she also informed that he/she would need proof of

participation in the research in order to claim course credit for a class he/she was taking. Then the experimenter asked the confederate and the participant to stay in a waiting room whereas he/she issued the certificate of participation. The interaction between each participant and the confederate took about two minutes and in the meantime the confederate told the participant that the easiest way to obtain money was to always tell that the highest quantity of dots was on the right side. Afterward, the experimenter arrived to handle the certificate, and the confederate left the room. In the non-confederate condition, there was no such interaction.

Afterwards, participants were conducted to a laboratory room where the researcher explained to the participants how the task worked in a pretest. During the pretest, three squares were shown. Its purpose consists of making sure participants properly understand how the task functions. Then participants were left alone and answered the measures in the following order: dishonest behavior task, injunctive and descriptive norms measure, self-esteem measure, and sociodemographic measures.

Participants were informed about the actual research purposes — which consisted of assessing (dis)honest behavior not attention and cognitive skills — in a debriefing that occurred at the end of the experiment. They were also told about the confidentiality and anonymity of their participation. The research protocol was not submitted for the same reasons presented in Study 1. We have complied with all ethical procedures descripted in the Publication Manual of the American Psychological Association in this study (American Psychological Association, 2019).

Results

We have analyzed the assumptions to conduct a one-way ANOVA to find out if there was a significant effect of the manipulation of providing a tip through a confederate. To perform such analysis, we must meet the assumptions of normality, sample independence, and variance

equality as well as the existence of outliers. We assessed linearity analysis residual versus fitted value plots. Sample independence has been granted through the randomization of the sample. Finally, a Levene's test was carried out to assess the equality of variances, which was statistically significant for all variables ($p<.05$), meaning that the difference in mean scores is not due to chance and is statistically significant. Thus, we conducted an ANOVA with the Welch statistic. As to the existence of outliers, we calculated the Mahalanobis distance to account for multivariate ones, and we have found none.

The one-way ANOVA with the Welch statistic revealed that there was a significant difference between the group that received advice from the confederate and the group that did not receive it, F_{Welch} (1,196) = 7.94, p=.005. Specifically, the former group tended to score higher amounts of money in Brazilian reais (M= 1.07, SE=.03) in the task when compared to the latter (M=.97, SE=.03).

Correlation and regression analyses have also been performed (see Table 6). To perform the multiple regression analysis, we firstly checked if the assumptions of linearity, autocorrelation, multicollinearity, and heteroskedasticity had been met. The linearity assumption has already been checked prior to performing the one-way ANOVA. Autocorrelation was analyzed by observing Durbin – Watson (DW) statistic, for which we found a value of 2.01, indicating that the data are not autocorrelated (Montgomery et al., 2001). We checked the assumption of multicollinearity by analyzing VIF and tolerance values, which in this research ranged from 1.01 to 1.04 and tolerance values were all above .1, ranging from 0.96 to 0.99. These parameters indicate that multicollinearity does not consist of a problem in the analysis (Johnston et al., 2018).

A stepwise multiple regression analysis has been carried out to assess the effects of receiving advice from a confederate as well as injunctive and descriptive norms on cheating in the dots game while controlling for the effects of age, gender, and self-esteem. We inserted the sociodemographic variables in the first step and then injunctive and descriptive norms in the second step. By doing so, we have observed that the coefficient of determination (R^2) has improved significantly, rising from .02 to .08. In this analysis, receiving advice from a confederate has been found to be the only significant predictor of the dots game task results. As to correlations, the interaction with the confederate as well as reported descriptive norms are positively associated with a better performance in the dots game. Furthermore, there is a negative association between self-esteem and descriptive norms.

Table 6

Summary of Multiple Regression Analysis and Bivariate Correlations Using Cheating in the Dots Game as a Criterion Variable and Age, Gender, Self-esteem, Condition, Injunctive Norms, and Descriptive Norms as Antecedent Variables (N=198)

Variables	Dot	Age	Gen	Sel	Con	IN	DN	β	SE	LL	UL
Dot	1							-	-	-	-
Age	.13	1						.02	.03	-.001	.01
Gen	.05	.08	1					.007	.004	-.04	.09
Sel	.003	-.09	-.06	1				.015	.02	-.03	.06
Con	.20*	-.01	-.04	-.06	1			.11*	.04	.04	.18
IN	.02	.09	-.05	-.08	-.06	1		.007	.02	-.03	.04
DN	.14*	-.08	.04	-.14*	-.02	-.09	1	.04	.02	-.001	.08
R^2	.08										
Adj R^2	.05										

Variables	Dot	Age	Gen	Sel	Con	IN	DN	β	SE	LL	UL
F	2.70										

*p< .05

Dot = result of the dots game, Gen = gender, IN = injunctive norms, DN = descriptive norms, Sel = self-esteem, Con = confederate, β = standardized regression coefficients, SE = standard error, LL = lower limit, UL = upper limit.

In an exploratory character, we also decided to test whether there would be a significant interaction between the tip provided by the confederate and descriptive norms to predict the values received in the dots game. To do so, we centralized the two predictor variables and calculated an interaction term. We then used the three variables to predict the dots game results. Nevertheless, although we did find that the model was statistically significant, $R^2 = 0.05$, adjusted $R^2 = 0.03$, $F(3, 194) = 3.40$, $p=.02$, the interaction term was not a significant predictor, $\beta = 0.03$, $p = .64$.

Discussion

As expected, receiving advice on how to cheat in a game has influenced participants' subsequent behavior, suggesting that descriptive norms made salient by a confederate may cause individuals to behave dishonestly. This result provides further evidence to the claim that dishonest actions performed by ordinary people may cause others to commit more acts of dishonesty (Allcott, 2011; Egebark & Ekström, 2011; Ferraro & Price, 2013; Fischer & Huddart, 2008; Goeree & Yariv, 2015; Innes & Mitra, 2013; Mitra & Shariar, 2020; Welsh et al., 2015; Zafar, 2011). This finding is also in line with the reports that watching peers violating rules fosters more engagement in such types of behavior (Lois & Wessa, 2020) and that descriptive norms significantly predict unethical behavior — be it engaging in plagiarism, cheating, research

misconduct, or petty dishonesty (Curtis et al., 2018; Rajah-Kanagasabai & Roberts, 2015). Therefore, we may indeed say that dishonesty is contagious (Robert & Arnab, 2013).

Participants who received advice on how to have a better performance in the dots game completed the task in a way that resulted in receiving a higher financial reward if compared to the ones who did not receive the tip. This result provides evidence that descriptive norms may indeed enable coordinating with other group members (Morris et al., 2015). It also suggests that the interaction with an ingroup member (the confederate) significantly promoted participants' cheating in the task, which supports the statement that there is a tendency for individuals to engage in cheating when they perceive that other group members do so (Daumiller & Janke, 2019).

Nevertheless, injunctive norms neither predicted the results of the dots game task nor have been found to be associated with such results. This finding does not support the reports by Curtis et al. (2018), Rajah-Kanagasabai and Roberts (2015), and Stephens et al. (2007), which indicated that injunctive norms predict plagiarism and research misconduct and are positively related to conventional and digital forms of academic dishonesty. Interestingly, the injunctive and descriptive measure applied in this study behaved in a very distinct manner in comparison with the social norms measure applies in Study 1, in that in Study 1 injunctive and descriptive norms were highly correlated — and then we decided to collapse it in one single dimension — while in Study 2 the two dimensions were not highly correlated. It is also worth noticing that the coefficient of determination (R^2) for the multiple regression analyses is rather low, indicating that only a tiny fraction of the variance for our dependent variable can be explained by our independent variables in the model. Thus, other variables that have not been analyzed in this study must be responsible for explaining the remaining variance. We encourage future studies to investigate what other variables may have a relevant impact in the model.

Although there was not a significant predictive effect of reported descriptive norms on the dots game results, a significant positive correlation between these two variables was found. That is, the stronger the descriptive norms of petty dishonesty, the better the performance in the dots game task and supposedly the more cheating. This result is aligned with the report that there is a strong correlation between peer norms and dishonesty (Donse & Groep, 2013; Jordan, 2001; Stephens et al., 2007), specifically when it comes to peer cheating behavior (Stephens et al., 2007). Furthermore, a significant negative correlation between descriptive norms and self-esteem was found, indicating that the lower the self-esteem, the stronger the impact of descriptive norms on people's behavior. This result may be explained by the fact that individuals with low self-esteem may have a negative perception of reality and may be more prone to think that others break rules and act more dishonestly more frequently than what actually happens. Future research is advised to further explore this relationship.

The present study has some limitations such as the fact that no data has been collected on to what extent participants identify themselves with the University of Brasília students' group and whether participants consider themselves as prototypical and/or peripheral members of this group. This consists of relevant data, for previous empirical papers have found a consistent relationship between social identification and conformity to the salient in-group norms (Falomir-Pichastor et al., 2009; Verkooijen et al.2007; White et al., 2002). This relation holds even stronger for peripheral members, who are hoping to stay in the group and become more similar to other ingroup members (Masson & Fritsche, 2019). Furthermore, it is worth mentioning that we did not control for how participants answered each trial in the dots game. We only controlled how much money they received at the end of the task. The difference between the experimental and the control group was significant but rather small. Therefore, it may be that participants tested if what the confederate told them was true in the beginning of the task, but did not continue

cheating throughout the dots game. Future research should also explore the effect of the need for approval on the relationship between descriptive norms and engagement in dishonest behavior.

We have proposed some relevant contributions by providing evidence that it is possible to manipulate descriptive norms through a short interaction with a confederate, influencing subsequent behavior. Therefore, this research has supplied further data to support the claim that dishonesty is contagious and that descriptive norms of dishonesty may cause individuals to lean toward more dishonesty. It has also advanced the literature on dishonest behavior by indicating that there is a negative link between self-esteem and descriptive norms which may be affected by individuals' need for approval. Based on our findings, we expect that honesty may also be contagious. Considering that social norming campaigns may be employed to correct misperceptions about the prevalence and severity of dishonesty (Simola, 2017), we hope that the insights that this study provides on the effect of peer perceived dishonesty be considered when planning interventions aimed at changing people's behavior toward more honest practices.

Abstract of Study 3

In this study, we shed light on the role of cultural tightness and income inequality in predicting returning lost wallets across 20 countries. More specifically, we investigated whether and to what extent cultural tightness, corruption perception, and civic honesty are related. More importantly, we also conducted a multilevel study to assess the effect of individual and cultural predictors on civic honesty — our criterion variable. Our specific objective consists of evaluating whether cultural tightness and perception of corruption work as level 2 predictors of civic dishonesty (level 1). We also intend to assess the interaction of these variables with others in predicting civic dishonesty: age (level 1), gender (level 1) years of democracy (level 2), the share of Protestants of the country (level 2), and income inequality (level 2). As results, we observed that there were significant associations between more cultural looseness and civic honesty, lower CPI 2019 and civic honesty, more years of years of democracy and civic honesty, higher share of protestants and more prevalent civic honesty, lower income inequality and more civic honesty, lower age and higher rates of civic honesty, and more women in the sample and more prevalent civic honesty. We also unraveled the moderator role of income inequality in the impact of corruption perception and Protestantism to predict civic honesty. The insights provided by our study may be of relevance to support the creation of public policies aimed at increasing civic honesty, for we have found that improving corruption perception and decreasing income inequality may lead to people voluntarily refraining from opportunistic behavior.

Keywords: civic honesty; opportunistic behavior; cultural tightness; income inequality; corruption perception.

Study 3: The influence of cultural tightness and corruption perception on civic honesty: a cross-cultural study

Cultural tightness is a concept that involves variance in norms, values, and behaviors across cultures (Carpenter, 2000; Triandis, 1989). Such a concept is tied to the extent to which these norms, values, and behaviors are enforced at the same time that deviance is punished. Tight cultures have many strong norms and low tolerance of deviant behaviors whereas the loose ones have weak social norms and a high tolerance of divergent actions (Gelfand et al., 2011). Thus, homogeneous cultures tend to be tight and heterogeneous cultures present a tendency to be loose (Triandis, 1989).

The strength of social norms in a society may influence whether individuals are free to make personal judgments regarding engaging in morally debatable behaviors or are obliged to follow the moral rules rigidly (Jiang et al., 2015). For instance, tight and loose cultures differ in terms of support for leaders, in that the tighter the culture is, the fewer individuals would support norm violators as authority figures (Stamkou et al., 2019). Furthermore, societies whose cultural values emphasize moral norms that extend beyond one's ingroup present a positive association with larger rates of civic honesty (Cohn et al., 2019). Thus, cultural tightness is linked with and may have an effect on engagement in commonly accepted social norms, possibly affecting rates of dishonest and corrupt behavior in a country.

Corruption and honesty consist of different concepts although they are highly intertwined. Dishonesty comprises actions that incur cheating and lack of probity, resulting in damage to third parties. Civic honesty, in its turn, involves voluntarily refraining from opportunistic behavior (Cohn et al., 2019), and this is expressed when people meet their civic duties as citizens. On the other hand, corruption involves the misuse of power for private gain (Transparency International,

2021), and being corrupt requires holding a position of power in the first place. Regular citizens may engage or not in civic honesty, but only individuals holding a position of power are able to engage in corruption. Finally, corruption perception is a concept that involves how much the citizens of a country perceive corruption to be widespread. High levels of corruption perception may lead to more devastating effects than corruption itself because it can generate a "culture of distrust" and create a cultural tradition of pulling strings, which may, in turn, ultimately raise corruption (Melgar et al., 2010).

In this study, we aim to investigate whether and to what extent cultural tightness, corruption perception, and civic honesty are related. More importantly, we aim at conducting a multilevel study to assess the effect of individual and cultural predictors on civic honesty — our criterion variable. Specifically, our objective is to evaluate whether cultural tightness and perception of corruption work as level 2 predictors of civic dishonesty (level 1). We also intend to assess the interaction of these variables with others in predicting civic dishonesty: age (level 1), gender (level 1) years of democracy (level 2), the share of Protestants of the country (level 2), and income inequality (level 2). We propose to use a multilevel approach to model each unit separately along with all unit contexts simultaneously within the same model (Kreft & de Leeuw, 1998).

Antecedents of civic honesty

Since corruption and perception of corruption rely on how societies understand the rules and define what constitutes a deviation, both are considered cultural phenomena. However, engaging in corruption also depends on one's personal values and moral biases, being correlated with people's perception of corruption (Melgar et al., 2010). Therefore, it may be possible that in

countries where there are high corruption and corruption perception levels, there are also decreased levels of civic honesty.

High and rising corruption tends to increase income inequality and poverty (Gupta et al., 2002), which may in turn lead to upward social comparisons (Cheung & Lucas, 2016) and societal problems (Pickett & Wilkinson, 2010). Countries with higher income inequality, in their turn, present reduced prosocial behavior (Côté et al., 2015; Sands, 2017), increased antisocial behavior (DeCelles & Norton, 2016), reduced trust and perceptions of fairness (Oishi et al., 2011), poorer well-being (Du et al., 2020), and reduced civic honesty (Du et al., 2020). Income inequality reduces civic honesty by two means: (1) people tend to make comparisons between themselves and others in terms of economic status more often in unequal societies (Cheung & Lucas, 2016), which then exacerbates the need for more money (Payne et al., 2017), and (2) economic social comparison in unequal societies damages social relationships and weakens social ties (Pickett & Wilkinson, 2010). Specifically, it has been reported that societies in which people have a strong need for money and loose social ties caused by income inequality show less civic honesty by returning a lost wallet (Du et al., 2020). That is, high corruption rates and increased income inequality can lead people to engage less in commonly accepted social norms, showing less civic honesty.

Tight and loose cultures portray different levels of tolerance of behaviors that diverge from commonly accepted social norms (Uz, 2015). While individuals must strictly conform to group values in tight cultures, there is more tolerance for variability and openness for deviant behaviors in culturally loose societies (Carpenter, 2000). In the latter, rejecting an ingroup member may be more painful because defining deviance is less clear in groups where there is a lot of variability among members. Besides, cultures with divergent levels of tightness and

looseness present significant differences when facing distal ecological and human-made societal threats as well as societal institutions and practices (Gelfand et al., 2011). For instance, tight groups cooperate much faster under threat and have higher survival rates than loose groups in times of collective threat such as a pandemic. In fact, tight cultures present fewer cases and deaths due to COVID-19 infections when compared to loose ones (Gelfand et al., 2021). Since there is little tolerance for deviant behavior, individuals likely tend to engage more in civic honesty in tight nations.

Nevertheless, tight nations are less likely to have democracy and freedom of the press (Gelfand et al., 2011), which are associated with their levels of corruption and corruption perception. This happens because democracy involves the turnover of power, which implies that politicians cannot always make credible promises that particular laws and regulations will continue to be applied. This fact in turn minimizes the size of bribes by weakening politicians' bargaining power (Montinola & Jackman, 2002). A competitive electoral process can also give them an incentive to reveal the untrustworthy behavior of their opponents and to show they are trustworthy themselves (Rose-Ackerman, 2001). Considering the potential relationship between corruption perception and civic honesty — which we investigate in the realm of this study, it may also be possible that the number of years a country experiences democracy affects engagement in civic honesty.

At an individual level, older individuals may be less inclined to violate norms and voluntarily refrain from opportunistic behavior, that is, show increased civic honesty. It may be expected because older adults tend to judge moral transgressions less leniently than younger adults. This pattern was found to be moderated by the societies' tightness, such that age was a stronger predictor of the perceived justifiability of morally debatable behaviors in loose societies

in relation to tight societies (Jiang et al., 2015). Moreover, older women who are religious have been found to score higher on civic morality than younger men who are not religious (Letki, 2006).

Still at the individual level, Protestantism and gender consist of other factors that may be related to civic honesty. Religious service attendance has been reported to be positively linked with academic honesty among college students (Nahar, 2019) and thus it may be possible that the proportion of religious people in a country influences the prevalence of civic honesty in it. Furthermore, an experiment with rolling dices found that religious females presented the highest level of honesty (Arbel et al., 2014) and female hospitality employees have been found to be more honest than male counterparts. However, the relationship between gender and honesty is weakened when gender identification is low (Shum et al., 2020).

Considering the evidence presented, we propose a multi-level regression model in which country-level (level 2) and individual-level (level 1) variables predict engagement in civic honesty (level 1). In this model, the cultural tightness score (Gelfand et al., 2011), the corruption perception index (CPI 2019), the countries' years of democracy (Cohn et al., 2019), the percentage of Protestants (Ashraf & Galor, 2013), and income inequality (Gini Index; Solt, 2019) are assessed as level-2 predictors of civic honesty while age and gender (Cohn et al. 2019) are entered as level-1 predictors. Thus, in this study, we intend to advance the analyses performed by Cohn et al. 2019 by adding other variables that may also work as cultural predictors of civic honesty (cultural tightness score; Gelfand et al., 2011, and the corruption perception index; CPI 2019).

We expect that the higher the tightness score (Hypothesis 1), the lower the CPI 2019 (Hypothesis 2), the more years of democracy a country holds (Hypothesis 3), the largest the share

of Protestants (Hypothesis 4), and the lower the income inequality in a country (Hypothesis 5), the more prevalent civic honesty is in this country. Furthermore, we expect that older individuals (Hypothesis 6) and females (Hypothesis 7) be more prone to engage in acts of civic honesty. We also intend to conduct regression analyses to assess whether all these variables are significant predictors of civic honesty. Motivated by the report of Du et al. (2020) that corruption perception is heightened by increased income inequality, affecting engagement in civic honesty, we also conducted exploratory analyses to assess whether income inequality would moderate the relationship between other level-2 variables and engagement in civic honesty.

Method

Participants

The sample was composed of 9,932 participants from 20 different countries. In this research, we used secondary data from the tightness score, computed by Gelfand et al. (2011), the corruption perception index 2019 (CPI 2019) calculated by Transparency International, and behavioral data on civic honesty collected by Cohn et al. (2019). Most participants were women (54.7%), and the most prevalent age group was between 30 and 39 years old (34.9%).

Measures

As mentioned, we used a behavioral measure of civic honesty (Cohn et al., 2019), the Corruption Perception Index computed in 2019 (CPI 2019), the tightness score (Gelfand et al., 2011), information on the countries' years of democracy (Cohn et al., 2019), the proportion of Protestants (Ashraf & Galor, 2013), and income inequality (World Bank, 2021 as well as and other individual difference variables (age and gender; Cohn et al. 2019).

Civic honesty. A behavioral measure of civic honesty conceived and applied by Cohn et al. (2019), who distributed more than 17,000 wallets containing various sums of money in 355 cities across 40 countries. In this research, we used the information on 20 countries, which corresponded to the countries that match the ones where the other measures were applied. Cohn et al. (2019) targeted five to eight of the largest cities in a country, totalizing nearly 400 observations per country. Wallets were turned in to one of five types of societal institutions: (1) banks; (2) theaters, museums, or other cultural establishments; (3) post offices; (4) hotels; and (5) police stations, courts of law, or other public offices. These institutions were chosen because they are common across countries and typically have a public reception area where drop-offs could be performed (Cohn et al., 2019).

The wallets consisted of transparent business card cases, which were used to ensure that recipients could visually inspect them without having to physically open the wallet. Each wallet contained US$13.45. Local currencies were used and the amount was adjusted according to each country's purchasing power to ensure comparability across countries. Each wallet contained three identical business cards, a grocery list, and a key. The business cards contained the owner's name and email address. Cohn et al. (2019) used fictitious but commonplace male names for each country. All items inside the wallets were written in the country's local language to signal that the owner was a resident.

Cohn et al. (2019) report that, after walking into the building, one of their research assistants approached an employee at the counter, said they had found the wallet on the street around the corner, placed it on the counter, and pushed it over to the employee. They also said that somebody must have lost it, they were in a hurry and had to go, and asked the clerk to take care of it. The assistant then exited the building without leaving contact details or requesting

written proof of having turned in the wallet. The outcome measure was whether recipients contacted the owner of the wallet to return it. It was measured in a binary way (0 = wallet not reported and 100 = wallet reported). Cohn et al. (2019) created a unique email address for each wallet and recorded emails that were sent within 100 days of the initial drop-off.

Tightness score. With data from 33 nations, this score was computed by Gelfand et al. (2011) and illustrates the differences between cultures that have many strong norms and low tolerance of deviant behavior (tight) versus the ones that have weak social norms and a high tolerance of deviant behavior (loose). In this research, we only used the data of 20 out of the 33 countries available, owing to the fact that they were the countries that matched the data available on the behavioral measure of civic honesty collected by Cohn et al. (2019). The scores ranged from 1.6 (very loose) to 12.3 (very tight).

Tightness-looseness (the overall strength of social norms and tolerance of deviance) was measured on a six-item Likert scale that assessed the degree to which social norms are pervasive, clearly defined, and reliably imposed within nations. Examples of scale items include “There are many social norms that people are supposed to abide by in this country” and “In this country, if someone acts inappropriately, others will strongly disapprove”. Gelfand et al. (2011) reported strong support for the reliability and validity of the measure as well as the strength of social norms and tolerance of deviance is a shared collective construct: There is high within-nation agreement in each nation [r within-group(M) = 0.85], high between-nation variability [F(32, 6,774) = 31.23, P < 0.0001; intraclass correlation (ICC)(1) = 0.13], and high reliability of the tightness-looseness scale means [ICC(2) = 0.97]. Gelfand et al. (2011) also indicated that the scale has high convergent validity with expert ratings, unobtrusive measures, and survey data

from representative samples; is able to adequately discriminate between cultural regions; and is distinct from other cultural dimensions.

Corruption Perception Index (CPI) 2019. The Corruption Perceptions Index ranks 180 countries and territories by their perceived levels of public sector corruption, according to experts and business people. We have only used the CPI score of 20 out of the 180 countries whose scores are available, which were the ones that matched the variables of the other datasets used in this study. The CPI uses a scale from 0 to 100, in which 100 is very clean and 0 is highly corrupt.

Years of democracy. The number of years since the polity score in the Polity IV data set is strictly above zero, starting from 1800 or the year of independence for countries that became independent later. These data were retrieved from Cohn et al. (2019).

Share of Protestants. The percentage of a country's population that is Protestant, obtained from (Ashraf & Galor, 2013). The data are originally from La Porta et al. (1999). These data were used in Cohn et al. (2019)'s research and were retrieved from their dataset.

Income inequality. Country-level income inequality data were computed by Gini Index and were retrieved from the Standardized World Income Inequality Database (Solt, 2019). Most of the countries have indices in 2015–2017, from which the latest indices were used. When Gini indices were not available in the referred period, the ones in the most recent year were used. This coefficient ranges from 0 to 100, in which 0 represents perfect equality and 100 represents perfect inequality.

Individual difference variables. We selected the variables age (1 = <20, 2 = 20-29, 3 = 30-39, 4 = 40-49, 5 = 50-59, 6 = 60+) and gender (0 = female, 1 = male). These data were retrieved from Cohn et al. (2019).

Procedure

We downloaded the datasets of the lost wallet experiment (Cohn et al., 2019) and matched the countries in it with the ones whose tightness (Gelfand et al., 2011) and CPI 2019 scores were available (Transparency international, 2021). By doing so, we narrowed the number of countries down to 20. Then we gathered all the information in a unified dataset and proceeded with testing whether using multilevel modeling (with IBM SPSS Statistics 22) would be appropriate for our analysis.

Multilevel modeling represents a compromise between modeling each unit separately and modeling all unit contexts simultaneously within the same model (Kreft & de Leeuw, 1998), being indicated when dealing with nested designs and/or examining cross-level interactions between individual-level and country-level predictors (Raudenbush & Bryk, 2002). We included the tightness score, CPI 2019, information on the countries' years of democracy (Cohn et al., 2019), the share of Protestants (Ashraf & Galor, 2013), and income inequality (Gini index; World Bank, 2021) as the level-2 independent variables along with other individual variables (age and gender; Cohn et al. 2019) as a level-1 predictor of civic honesty (Cohn et al., 2019).

Our analytical procedure consisted of five steps (Heck et al., 2014). First, since we expected a general within-cluster effect of our level-1 variables, we have performed grand-mean centering by subtracting the grand mean of the predictors using the mean from the full sample to account for the effect of level-2 controlling for level-1 variables (Algina & Swaminathan, 2011; Sommet & Morselli, 2021). The only exception was gender, which is dummy coded, 0 = female, 1 = male. It is also relevant to mention that we used restricted maximum likelihood (RML) as the method of estimation for all models.

The first step of the multilevel regression analysis was the specification of the null — or no predictors — model (Model 1). We identified that there was variance due to differences among individuals within their respective units (Wald Z = 70.40, $p < .001$), and the intraclass correlation coefficient (ICC) indicated evidence of clustered observations within Level 2 units, ICC= .12. Some authors (Hayes, 2006; Heck et al., 2014) argue that .05 is considered a cutoff of evidence of substantial clustering. For this model, the ICC suggests that about 12.1% of the total variability in civic honesty lies between countries. Besides, to determine whether or not multilevel modeling is needed, the Design EFFect consists of another informative parameter (Muthén & Satorra, 1995; Sommet & Morselli, 2021). If the DEFF is as small as 1.5, the estimation of standard errors from traditional regressions is sometimes biased (Lai & Kwok, 2015). However, in our null model, DEFF was 60.97 and thus we should take the hierarchical structure of our data into account. Considering this evidence, we decided we should proceed with multilevel analysis.

The second step involved building the Individual-Level (or Level 1) Random Intercept Model (Heck et al., 2014). Having entered age and gender as predictors at level 1 (Model 2), we found that there was still significant variability to be explained both within countries (Wald Z = 70.37, $p < .001$) and between countries (Wald Z = 3.03, $p = .002$). The Wald Z test suggested that, even after controlling for age within countries, a statistically significant amount of variation in outcomes remained both within and between countries that might explain this residual variability in intercepts. The ICC indicated that after controlling for level-1 variables, there remained non-trivial variation (ICC = 0.12) in civic honesty occurring between countries. Besides, we noticed that the residual for within-group variability decreased from the previous Model 1 (2500.21) to Model 2 (2487.46), suggesting that age and gender account for

approximately 0.5% of the within-country variability in civic honesty scores. This reduction in variance can be used to calculate a reduction in variance estimate (a measure that is similar to R^2) for the within-country and between-country portions of the model (Heck et al., 2014).

We then proceeded with adding the level-2 variables to build the Group-Level (or Level 2) Random Intercept Model (Model 3). We found that there was still significant variability within countries (Wald Z = 70.37, p < .001) and between countries (Wald Z = 2.48, p = .01) although the ICC indicated that, after controlling for level-1 variables, there remained non-trivial variation (ICC = 0.10) in civic honesty occurring between countries. The residual for within-group variability decreased from the previous Model 2 (2487.46) to Model 3 (2294.60), accounting for a 7.7% of the within-country variability in civic honesty scores.

In the fourth step, which comprised building the Random Slope and Intercept Model (Heck et al., 2014), we investigated if the slope varies across countries (Model 4). There was a decrease in the variability that remained to be explained, albeit there still remained variability within countries (Wald Z = 70.37, p < .001) and between countries (Wald Z = 2.46, p = .01) to be explained. The ICC for this model (ICC= 0.03), however, indicates that there may be not substantial clustering, for it falls below the threshold of 0.05 (Heck et al., 2014). The residual for within-group variability also decreased from the Model 3 (2294.60) to Model 4 (2245.16), accounting for a 2.1% of the within-country variability in civic honesty scores.

Finally, in the fifth step, we added cross-level interactions between level-1 and level-2 variables (Model 5). Once again, there was significant variability within countries (Wald Z = 70.38, p < .001) to be explained. Again, the ICC for this model (ICC= 0.03) indicates that there may be not substantial clustering (Heck et al., 2014). We verified that the residual for within-

group variability has actually increased from the Model 4 (2245.92) to Model 5 (2288.98), indicating that Model 5 does not have a better fit than Model 4.

All things considered, we observed that a multilevel regression model consisted of an appropriate approach to analyze our data even though there was still significant variance to be explained between and within countries. Furthermore, based on the evidence presented, we then consider that the model with the best fit is Model 3.

Results

Inspection of residuals have been conducted to assess the assumptions of normality and linearity of multilevel analysis are met. Normality was analyzed through Q-Q plots while linearity was assessed through the analysis residual versus fitted value plots. Table 7 presents descriptive statistics — means and standard deviations — as well as correlations between all variables of interest. We can see that all variables are significantly correlated, except for cultural tightness and age, years of democracy and age, and the share of Protestants and age.

Table 7

Descriptive Statistics and Bivariate Correlations among the Variables of Interest (N = 9,932)

Variables	M	SD	Civic Honesty	Gender	Age	Tight	CPI 2019	Years of democracy	Protestant	Income inequality
Civic honesty	49.80	50.00	1	-0.07+	-0.04+	-0.16+	0.27+	0.13+	0.17+	-0.24+
Gender	0.45	0.50		1	0.12+	0.09+	-0.17+	-0.09+	-0.09+	0.15+
Age	3.30	1.04			1	0.008	-0.06+	-0.001	-0.02	0.07+
Tight	6.42	2.19				1	-0.35+	-0.19+	-0.12+	0.31+
CPI	62.31	17.92					1	0.68+	0.68+	-0.65+

Variables	M	SD	Civic Honesty	Gender	Age	Tight	CPI 2019	Years of democracy	Protestant	Income inequality
Democracy	89.54	65.04						1	0.60+	-0.12+
Protestant	15.81	22.37							1	-0.34+
Income inequality	34.90	6.05						-		1

*p< .05, +p < .01.

Tight = Tightness score, Protestant = Share of Protestants.

To account for the sole role of each variable in the model, we have inserted each variable alone in simple regression analyses. We have noted that age had a very low beta weight (-0.04) as well as a rather low R^2 (0.001). Nevertheless, the model was still statistically significant. Gender presented slightly larger beta weight (0.07) and R^2 (0.004). When it comes to country-level variables, we observed that beta weights were larger, ranging from -.16 to .26, and R^2 ranged from 0.02 to .07. Thus, it seems that level-2 variables consist of better predictors in the models. As can be seen, Table 8 summarizes the results of the five aforementioned models (Model 1 to 5).

Table 8

Model Parameters and Goodness of Fit for Multilevel Regression Models in which Civic Honesty is the Criterion Variable and Individual and Country-level Variables are Predictors

	Model 1	**Model 2**	**Model 3**	**Model 4**	**Model 5**
	B SE	B SE	B SE	B SE	B SE
Grand mean	48.02 (3.97)+	52.70 (0.68)+	50.52 (0.65)+	49.37 (1.41)*	50.70 (2.10)+
Individual-level effects					
Gender		-6.36 (1.01)+	-1.55 (0.99)	-1.99 (.99)*	-0.84 (0.98)
Age		-1.39 (0.48)+	-0.78 (0.46)	-0.66 (0.46)	-0.79 (0.47)

	Model 1	Model 2	Model 3	Model 4	Model 5
	B SE	B SE	B SE	B SE	B SE
Country-level effects					
Tightness			-1.60 (0.24)+	-1.55 (0.72)	-1.67 (0.84)
CPI 2019			0.41 (0.06)+	0.27 (0.13)*	0.28 (0.24)
Democracy			-0.01 (0.01)	0.02 (0.03)	0.03 (0.07)
Protestant			0.07 (0.03)*	0.05 (0.09)	0.16 (0.11)
Income inequality			-0.93 (0.13)+	-1.58 (0.48)+	-0.80 (0.47)
Cross-level interactions					
Gender x Tightness					-0.29 (0.49)
Gender x CPI 2019					-0.04 (0.13)
Gender x Democracy					-0.02 (0.02)
Gender x Protestant					0.05 (0.06)
Gender x Income inequality					0.23 (.27)
Age x Tightness					0.29 (.23)
Age x CPI 2019					0.09 (0.06)
Age x Democracy					0.001 (0.01)
Age x Protestant					0.01 (0.03)
Age x Income inequality					0.21 (0.12)
			Goodness of fit		
ICC	.121	.116	.103	0.03	0.03
ΔR^2		0.005	0.077	0.021	-0.19
Deviance (AIC)	105895.60	105774.19	104872.94	104882.13	104992.81

*p < .05, +p < .01

Tightness = Tightness score, Protestant = Share of Protestants.

We also performed moderation analyses to evaluate whether income inequality significantly impacts the effects of cultural tightness, corruption perception, years of democracy, and proportion of Protestants on engagement in civic honesty. Income inequality has significantly interacted with corruption perception, t (9932) = -3.42, b = -.0009, p< .01, CI [-.001, -.0004], and share of protestants, t (9932) = 4.53, b = .0008, p< .01, 95% CI [.0005, .001], to predict civic honesty. Conversely, the opposite held true for cultural tightness, t (9932) = -1.35, b = -.002, p= .18, 95% CI [-.005, .0009], and years of democracy, t (9932) = -.66, b = .0001, p= .51, 95% CI [-.0003, .0001].

Discussion

In this study, we investigated which cultural and individual variables are significantly related to the degree to which people behave according to commonly accepted social norms by reporting a lost wallet. We also explored the extent to which cultural tightness, CPI 2019, years of democracy, the share of Protestants, and income inequality moderated the relationship between individual-level variables (gender and age) and engagement in civic honesty.

We refuted the hypothesis that the higher the tightness score of a country, the more prone individuals are to engage in acts of civic honesty (Hypothesis 1). In fact, the opposite result was found. That is, there was more engagement in civic honesty in countries that were more culturally loose. There was also a predictive effect, although it was not in the direction we expected, for the cultural tightness score negatively predicted engagement in civic honesty. This result is not aligned with the reports that deviance is more clearly defined and punished in tight cultures (Gelfand et al, 2011; Uz, 2015) while culturally loose societies are more open for deviant

behaviors because of their heterogeneity (Carpenter, 2000). We advise that more data be collected and different study designs be employed to analyze whether this result will stand.

Besides, CPI 2019 was found to negatively predict civic honesty and we observed a strong negative association between these two variables (Hypothesis 2 corroborated). This result supports the report that high levels of corruption perception may foster a cultural tradition of pulling strings and doing favors, which could lead to increased corruption (Melgar et al., 2010). However, one limitation of this measure lies in the fact that the CPI does not consist of a variable for which psychometric validity and reliability have been measured. It simply ranks countries and territories by their perceived levels of public sector corruption according to experts and business people and may not reflect the general population's perception of corruption. Future studies should aim at developing other measures of corruption perception for which psychometric validity and reliability can be computed.

Considering that democracy minimizes the size of bribes by weakening politicians' bargaining power (Montinola & Jackman, 2002) and that a competitive electoral process can give politicians an incentive to reveal the untrustworthy behavior of their opponents and to show they are trustworthy themselves (Rose-Ackerman, 2001), we expected that countries that experience more years of democracy would tend to be less corrupt and perceived as less corrupt, which would in turn influence engagement in civic honesty. In fact, in spite of not observing a significant predictive effect, we found a strong association between years of democracy a country holds and its level of civic honesty, corroborating Hypothesis 3.

Results from our analyses also support the reports that religious service attendance is positively linked with academic honesty among college students (Nahar, 2019) and that religious females presented the highest level of honesty in an experiment with rolling dices (Arbel et al.,

2014). This support was provided by a strikingly significant positive correlation between the level of Protestantism a country holds and its civic honesty (Hypothesis 4 corroborated). Furthermore, Protestantism was a significant positive predictor of the criterion variable.

We also confirmed the hypothesis that the lower the income inequality in a country, the more prevalent civic honesty is (Hypothesis 5), for there was a significant negative correlation and predictive relationship between the two variables. This result lent support for the reports that income inequality reduces civic honesty by leading people to make comparisons between themselves and others in terms of economic status more often in unequal societies (Cheung & Lucas, 2016) as well as damages social relationships and weakens social ties through economic social comparison in places with high income inequality (Pickett & Wilkinson, 2010).

Furthermore, correlation analyses indicated that younger individuals (Hypothesis 6 rejected) and women (Hypothesis 7 corroborated) are more prone to engage in acts of civic honesty. Nevertheless, no predictive effects have been found. Our result is therefore partially in line with the report that older women tend to score higher on civic morality than younger men (Letki, 2006). Nevertheless, it is worth noting that the association between gender and honesty is reported to be weaker when gender identification is low (Shum et al., 2020). Since gender identification was not one of the variables measured in this research, we have not been able to test the mediator role of gender identification on civic honesty.

Income inequality moderated the impact of corruption perception and share of Protestants on engagement in civic honesty, indicating that countries that hold a decreased perception of corruption and a higher percentage of Protestants, along with less income inequality, present more engagement in civic honesty. Nevertheless, income inequality did not significantly moderate the relationship between the other level-2 variables (cultural tightness and years of

democracy) and civic honesty. Thus, this finding may contradict the report that societies in which people have loose social ties caused by income inequality show less civic honesty by returning a lost wallet (Du et al., 2020). Notwithstanding, no data on social ties were collected or analyzed in the realm of this research. We then suggest that further studies assess the impact of social ties on engagement in civic honesty.

This study has several limitations. Firstly, we used a measure of the prevalence of Protestantism in the countries, not religiosity. Future research is thus advised to assess the impact of religiosity on civic honesty in terms of religious service attendance. Besides, we have not measured gender identification, which could influence the link between gender and civic honesty. Researchers are advised to conduct additional studies on the interaction between these two variables to predict honesty are advised to assess the effect of gender identification. Another limitation lies in the fact that we were not able to test the affirmation that people who have loose social ties caused by income inequality tend to show less civic honesty by returning a lost wallet (Du et al., 2020) because the datasets we used did not contain data on social ties. Thus, future research could focus on testing empirically whether this moderation relationship is found across cultures. Finally, our hypotheses were mainly correlational and we only found that a few level-1 and level-2 variables were able to predict engagement in civic honesty. Besides, there was still significant variance to be explained between and within countries. Further studies are advised to deepen the investigation on other factors that may explain the significant correlations and should attempt to replicate the outcomes of this study.

Our research has also brought relevant contributions to the understanding of cultural and individual variables that underlie engagement in civic honesty. We shed light on the role of cultural tightness and income inequality in predicting returning lost wallets across 20 countries.

Besides, we unraveled the moderator role of income inequality in the impact of corruption perception and Protestantism on civic honesty. The insights provided by our study may be of relevance to support the creation of public policies aimed at increasing civic honesty, for we have found that improving corruption perception and decreasing income inequality may lead to people voluntarily refraining from opportunistic behavior.

Overall discussion

This doctoral dissertation intended to evaluate the impact of social norms and cultural aspects on (dis)honest behavior and corruption intentions by conducting three studies. In Study 1, we assessed the role of social norms as well as other possible predictors, such as past dishonest behavior and sociodemographic variables, on corruption intentions. We found that the best predictor of corruption intentions was having engaged in petty dishonest behaviors in the past while self-reported social norms on petty dishonesty did not predict the criterion variable. These results contradicted some reports found in the literature (Baumgartner et al., 2011; Bicchieri & Mercier, 2014). We then suggested that more realistic studies should be conducted (e.g., in a laboratory setting) to observe whether these findings would stand, which we did in Study 2.

Still in Study 1, we evaluated the impact of the manipulation of some variables (amount of money, group membership, and type of action) on intentions to engage in corruption in the scenarios presented. We discovered that the participants reported stronger intentions to engage in corruption when a lower payout was involved, which can be explained by the fact that it may be easier to justify and maintain their self-concept of being honest by accepting or asking for lower amounts of money. Participants were also reported to have stronger intentions of being corrupt when negotiating with an ingroup member (a friend), rather than with an outgroup member (unknown person). Finally, the type of action (whether passive or active) did not affect the

reported intention to engage in corruption, unless when dealing with ingroup members (the omission bias was then present).

To advance the findings of Study 1, in Study 2, we sought to investigate whether the manipulation of a descriptive norm through receiving advice from a confederate (supposedly an ingroup member) would impact the results of a task aimed to measure dishonest behavior. However, instead of answering hypothetical scenarios, participants were actually given the chance to behave dishonestly. We found that receiving advice on how to cheat in a game has influenced participants' subsequent behavior towards cheating in it. This finding provides evidence to the claim that dishonest actions performed by ordinary people may cause others to commit more acts of dishonesty (Allcott, 2011; Egebark & Ekström, 2011; Ferraro & Price, 2013; Fischer & Huddart, 2008; Goeree & Yariv, 2015; Innes & Mitra, 2013; Mitra & Shariar, 2020; Welsh et al., 2015; Zafar, 2011).

When it comes to self-reported social norms, neither injunctive nor descriptive norms worked as significant predictors of the dots games results. Nevertheless, we found that the stronger the reported descriptive norms of petty dishonesty, the better the performance in the dots game task and, supposedly, the more cheating. This result is aligned with the report that there is a strong correlation between peer norms and dishonesty (Donse & Groep, 2013; Jordan, 2001; Stephens et al., 2007). Thus, although we did not find that reported injunctive and descriptive norms predict corruption intentions in Study 1, the latter was a significant predictor of actual dishonest behavior in this study. We also found a significant negative correlation between descriptive norms and self-esteem, indicating that people with lower self-esteem may be more affected by descriptive norms, which may be explained by a need for approval (Lobel & Levanon, 1988) and seeking for immediate material gain (Aronson & Mettee, 1968).

Finally, in Study 3, we took a broader perspective, investigating the role of cultural factors (cultural tightness, CPI 2019, years of democracy, share of Protestants, and income inequality) and other variables (age and gender) on engagement in civic honesty. We found that countries with lower tightness scores and CPI are more prone to engage in acts of civic honesty. As for the other variables, we discovered that the lower income inequality is in a country and the larger the share of protestants, the more prevalent is civic honesty in this country. As for individual-level variables, we discovered that older individuals and women tend to be more honest than young people and men. Thus, we provided evidence to support that countries that present a decreased perception of corruption and a higher significant share of Protestants, along with less income inequality, are more likely to have more prevalent engagement in civic honesty.

In summary, based on the three studies conducted in this doctoral dissertation, we can conclude that self-reported injunctive and descriptive norms of petty dishonesty are not reliable predictors of either corruption intentions or engagement in dishonest behavior (according to Studies 1 and 2). Reported past behavior, however, is a significant predictor of it (Study 1). We then recommend that the process of checking whether public servants have previously engaged in crimes involving finance or property be an impeditive factor for them to take over a position in the public sector. Private companies are also advised to adopt similar procedures. Besides, we suggest that campaigns raise awareness on the fact that, even when involving low amounts of money, dishonesty may have detrimental consequences, potentially leading to a more corrupt society. Furthermore, we learned that individuals tend to be more corrupt when handling low amounts and negotiating with ingroup members (Study 1). Therefore, even the handling of low sums should be carefully overseen. Besides, since people tend to show stronger corruption intentions when dealing with ingroup members (e.g., friends), policies aimed at combating

nepotism should be fostered, and the process of hiring friends and family members to work in the same organization should be highly discouraged.

We found that the manipulation of a descriptive norm significantly influenced participants toward being dishonest (Study 2). Even a short interaction with a confederate was enough to produce a significant effect, which may indicate that dishonesty is in fact contagious (Robert & Arnab, 2013). Therefore, we suggest that campaigns aimed at discouraging petty dishonesty actions and taking advantage of situations to obtain financial gains be held. Finally, cultural factors have been found to affect engagement in civic honesty, in that, in countries with a lower perception of corruption, less cultural tightness, a larger share of protestants, and lower income inequality people tended to be more honest (Study 3). Therefore, working towards decreasing income inequality and perception of corruption may also foster engagement in civic honesty as a consequence.

References

Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes, 50*(2), 179-211. https://doi.org/10.1016/0749-5978(91)90020-T

Ajzen, I., & Fishbein, M. (1975). A Bayesian analysis of attribution processes. *Psychological Bulletin, 82*(2), 261–277. https://doi.org/10.1037/h0076477

Albarracín, D. & Wyer, R. S., Jr. (2000). The cognitive impact of past behavior: Influences on beliefs, attitudes, and future behavioral decisions. *Journal of Personality and Social Psychology, 79*(1), 5–22. https://doi.org/10.1037/0022-3514.79.1.5

Algina, J., & Swaminathan, H. (2011). Centering in two-level nested designs. In. J. Hox, & K. Roberts (Eds.). *The Handbook of Advanced Multilevel Data Analysis* (pp 285-312). Routledge.

Allcott, H. (2011). Social norms and energy conservation. *Journal of Public Economics, 95*(5), 1982-2095. https://doi.org/10.1016/j.jpubeco.2011.03.003

American Psychological Association. (2019). *Publication Manual of the American Psychological Association.* American Psychological Association.

Arbel, Y., Bar-El, R., Siniver, E., & Tobol, Y. (2014). Roll a die and tell a lie – What affects honesty? *Journal of Economic Behavior & Organization, 107*(PA), 153-172. https://doi.org/10.1016/j.jebo.2014.08.009

Armitage, C.J. and Conner, M. (2001). Efficacy of the Theory of Planned Behaviour: A meta-analytic review. *British Journal of Social Psychology, 40*: 471-499. https://doi.org/10.1348/014466601164939

Aronson, E. & Mettee, D. R. (1968). Dishonest behavior as a function of differential levels of induced self-esteem. *Journal of Personality and Social Psychology, 9*(2), 121–127. https://doi.org/10.1037/h0025853

Ashraf, Q. & Galor, O. (2013). The 'Out of Africa' hypothesis, human genetic diversity, and comparative economic development. *Am. Econ. Rev., 103*, 1–46. https://doi.org/10.3386/w17216

Ayal, S., Celse, J., & Hochmana, G. (2019). Crafting messages to fight dishonesty: A field investigation of the effects of social norms and watching eye cues on fare evasion. *Organizational Behavior and Human Decision Processes.* https://doi.org/10.1016/j.obhdp.2019.10.003

Bandura, A. (2016). *Moral disengagement: How people do harm and live with themselves.* Worth Publishers.

Bar-Eli, M., Azar, O. H., Ritov, I., Keidar-Levin, Y., & Schein, G. (2007). Action bias among elite soccer goalkeepers: The case of penalty kicks. *Journal of economic psychology, 28(5)*, 606-621. https://www.sciencedirect.com/science/article/pii/S0167487006001048

Baumeister, R. F. (2010). The self. In Baumeister, R. F. & Finkel, E. J. (Eds.). *Advanced social psychology: The state of the science.* Oxford University Press.

Baumgartner, S. E., Valkenburg, P. M, & Peter, J. (2011). *Cyberpsychology, Behavior, and Social Networking, 14*(12), 753-758. http://doi.org/10.1089/cyber.2010.0510

Bellows, A. (2020). Bridging the Elite-Grassroots Divide Among Anticorruption Activists. *Carnegie Endowment for International Peace*.

Bicchieri, C. (2006). *The Grammar of Society: The Nature and Dynamics of Social Norms*. Cambridge University Press.

Bicchieri, C. & Ganegonda, D. (2016). Determinants of Corruption: A Socio-psychological Analysis. In Nichols, P., Robertson, D. *Thinking About Bribery, Neuroscience, Moral Cognition and the Psychology of Bribery.* Cambridge University Press.

Bicchieri, C. & Mercier, H. (2014). Norms and Beliefs: How Change Occurs. In: Xenitidou M., Edmonds B. (eds). *The Complexity of Social Norms. Computational Social Sciences*. Springer: Cham.

Carpenter, S. (2000). Effects of cultural tightness and collectivism on self-concept and causal attributions. *Cross-Cultural Research, 34*, 38-56. https://doi.org/10.1177/106939710003400103

Charness, G. & Jackson, M.O. (2007). Group play in games and the role of consent in network formation. *J. Econ. Theory, 136*, 417–445. https://doi.org/10.1016/j.jet.2006.09.006

Chen, R., & Chen, Y. (2011). The potential of social identity for equilibrium selection. Am. *Econ. Rev., 101*, 2562–2589. https://doi.org/10.1257/aer.101.6.2562

Chen, Y., Li, S.X., Liu, T.X., & Shih, M. (2014). Which hat to wear? Impact of natural identities on coordination and cooperation. *Games Econ. Behav, 84*, 58–86. https://doi.org/10.1016/j.geb.2013.12.002

Cheung, F., & Lucas, R. E. (2016). Income inequality is associated with stronger social comparison effects: The effect of relative income on life satisfaction. *Journal of Personality and Social Psychology*, *110*(2), 332-341. https://doi.org/10.1037/pspp0000059

Chung, A. & Rimal, R. N. (2016). Social norms: A review. *Review of Communication Research, 4*, 1-29. https://doi.org/10.12840/issn.2255-4165.2016.04.01.008

Cialdini, R. B., Kallgren, C. A., & Reno, R. R. (1991). A Focus Theory of Normative Conduct: A Theoretical Refinement and Reevaluation of the Role of Norms in Human Behavior. *Advances in Experimental Social Psychology, 24*, 201-234

Cialdini, R. B., Reno, R. R., & Kallgren, C. A. (1990). A focus theory of normative conduct: Recycling the concept of norms to reduce littering in public places. *Jour. of Pers. and Soc. Psych., 58*, 1015-1026. https://doi.org/10.1037/0022-3514.58.6.1015

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Erlbaum. https://doi.org/10.4324/9780203771587

Cohn, A., Maréchal, M. A., Tannenbaum, D., & Zünd, C. L. (2019). Civic honesty around the globe. *Science, 365*(6448), 70-73.

Côté, S., House, J., & Willer, R. (2015). High economic inequality leads higher-income individuals to be less generous. *Proceedings of the National Academy of Sciences of the United States of America*, *112*, 15838-15843. https://doi.org/10.1073/pnas.1511536112

Crocker, J. & Park, L. E. (2004). The costly pursuit of self-esteem. *Psychological Bulletin, 130*, 392–414. https://doi.org/10.1037/0033-2909.130.3.392

Curran, P. J., West, S. G., & Finch, J. F. (1996). The robustness of test statistics to nonnormality and specification error in confirmatory factor analysis. *Psychological Methods, 1*(1), 16-29. https://doi.org/10.1037/1082-989X.1.1.16

Curtis, G. J., E. Cowcher, B. R. Greene, K. Rundle, M. Paull, and M. C. Davis. (2018). Self-Control, Injunctive Norms, and Descriptive Norms Predict Engagement in Plagiarism in a Theory of Planned Behavior Model. *Journal of Academic Ethics*, *16*(1), 225–39. https://doi.org/10.1007/s10805-018-9309-2

Daumiller, M. & Janke, S. (2019). The Impact of Performance Goals on Cheating Depends on How Performance Is Evaluated. *AERA Open*. https://doi.org/10.1177/2332858419894276

DeCelles, K. A. & Norton, M. I. (2016). Inequality on airplanes predicts air rage. *Proceedings of the National Academy of Sciences, 113*(20), 5588-5591. https://doi.org/10.1073/10.1073/pnas.1521727113

Della Valle, N., & Ploner, M. (2017). Reacting to unfairness: Group identity and dishonest behavior. *Games, 8*(3), 28. https://doi.org/10.3390/g8030028

Donse, L. & Groep, I. H. van de (2013). Academic Dishonesty among College Students: Predictors and Interventions. *Social Cosmos, 4*(1), 40 – 50. https://dspace.library.uu.nl/handle/1874/272629

Du, H., Chen, A., Chi, P., & King, R. B. (2020). Income Inequality Reduces Civic Honesty. *PsyArXiv [Preprint]*. https://doi.org/10.1177/1948550620929495

Dyer, O. (2006). New report on corruption in health. Bulletin of the World Health Organization. *World Health Organization, 84*(2), 84 - 85. https://apps.who.int/iris/handle/10665/269569

Eagly, A. H., & Chaiken, S. (1993). The psychology of attitudes. *Harcourt brace Jovanovich college publishers.*

Egebark, J. & Ekström, M. (2011). Like what you like or like what others like? Conformity and peer effects on Facebook. *IFN Working Paper No. 886.* http://dx.doi.org/10.2139/ssrn.1948802

Falomir-Pichastor, J. M., Gabarrot, F., & Mugny, G. (2009). Conformity and Identity Threat The Role of Ingroup Identification. *Swiss Journal of Psychology, 68,* 79-87. https://doi.org/10.1024/1421-0185.68.2.79.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A.-G. (2017). G*Power 3.1 manual. *Heinrich-Heine-Universität Düsseldorf.* https://rdo.psu.ac.th/ResearchStandards/animal/assets/document/GPower3-2.pdf

Ferraro, P. J. & Price, M. K. (2013). Using Nonpecuniary Strategies to Influence Behavior: Evidence from a Large-scale Field Experiment. *Review of Economics and Statistics, 95,* 64-73. https://doi.org/10.1162/REST_a_00344

Ferraz, C., Finan, F., & Moreira, D, B. (2009). Corrupting Learning: Evidence from Missing Federal Education Funds in Brazil. *Textos para discussão, 562,* Department of Economics PUC-Rio (Brazil).

Fischbacher, U. & Föllmi-Heusi, F. (2013). Lies in disguise—an experimental study on cheating. *Journal of the European Economic Association, 11*(3), 525-547.

Fischer, P. & Huddart, S. (2008). Optimal Contracting with Endogenous Social Norms. *American Economic Review, 98,* 1459-1475. https://doi.org/10.1257/aer.98.4.1459

Funder, D. C., & Ozer, D. J. (2019). Evaluating effect size in psychological research: Sense and nonsense. *Advances in Methods and Practices in Psychological Science, 2,* 156–168. https://doi.org/10.1177/2515245919847202

Gächter, S. & Schulz, J. (2016). Intrinsic honesty and the prevalence of rule violations across societies. *Nature, 531,* 496–499. https://doi.org/10.1038/nature17160

Gelfand, M., Raver, J., Nishii, L., Leslie, L., Lun, J., Lim, B., . . . Yamaguchi, S. (2011). Differences Between Tight and Loose Cultures: A 33-Nation Study. *Science, 332*(6033). https://doi.org/1100-1104. 10.1126/science.1197754

Gelfand, M. J., Jackson, J. C., Pan, X., Nau, D., Pieper, D., Denison, E., Dagher, M., Van Lange, P., Chiu, C. Y., & Wang, M. (2021). The relationship between cultural tightness-looseness and COVID-19 cases and deaths: a global analysis. *The Lancet Planetary Health, 5*(3), e135–e144. https://doi.org/10.1016/S2542-5196(20)30301-6

Gino, F., Ayal, S. & Ariely, D. (2009). Contagion and differentiation in unethical behavior: the effect of one bad apple on the barrel. *Psychol. Sci., 20,* 393–398. https://doi.org/10.1111/j.1467-9280.2009.02306.x

Goeree, J. K & Yariv, L. (2015). Conformity in the Lab. *Journal of the Economic Science Association, 1,* 15-28. https://doi.org/10.1007/s40881-015-0001-7

Gupta, S., Davoodi, H., & Alonso-Terme, R. (2002). Does corruption affect income inequality and poverty? *Economics of Governance, 3*(1), 23-45. http://dx.doi.org/10.1007/s101010100039

Gyimah-Brempong, K. (2002). Corruption, economic growth, and income inequality in Africa. *Econ Gov, 3,* 183–209. https://doi.org/10.1007/s101010200045

Haines, V. J., Diekhoff, G. M., LaBeff, E. E., & Clark, R. E. (1986). College cheating: Immaturity, lack of commitment, and the neutralizing attitude. *Research in Higher Education, 25*(4), 342–354. https://doi.org/10.1007/BF00992130

Harmon-Jones, E., & Mills, J. (2019). An introduction to cognitive dissonance theory and an overview of current perspectives on the theory. In E. Harmon-Jones (Ed.), Cognitive

dissonance: Reexamining a pivotal theory in psychology (p. 3–24). *American Psychological Association*. https://doi.org/10.1037/0000135-001

Hayes, A. F. (2006). A primer on multilevel modeling. *Human Communication Research, 32*, 385–410. https://doi.org/10.1111/j.1468-2958.2006.00281.x

Heck, R. H., Thomas, S. L., & Tabata, L. N. (2013). *Multilevel and longitudinal modeling with IBM SPSS*. Routledge.

Henrich, J., Heine, S. J., & Norenzayan, A. (2013). The weirdest people in the world? In S. M. Downes & E. Machery (Eds.). *Arguing about philosophy. Arguing about human nature: Contemporary debates*, 198–216. Routledge/Taylor & Francis Group.

Hilbig, B. E., & Thielmann, I. (2017). Does everyone have a price? On the role of payoff magnitude for ethical decision making. *Cognition, 163*, 15–25. https://doi.org/10.1016/j.cognition.2017.02.011

Hill, T. E. (2019). Dignity and practical reason in Kant's moral theory. In Dignity and Practical Reason in Kant's Moral Theory. *Cornell University Press*.

Hogg, M. A. (2016). Social identity theory. In S. McKeown, R. Haji, & N. Ferguson (Eds.), Peace psychology book series. *Understanding peace and conflict through social identity theory: Contemporary global perspectives*, 3–17. Springer International Publishing.

Houser, D., Vetter, S., & Winter, J. (2012). Fairness and cheating. *Eur. Econ, 56*, 1645–1655. https://doi.org/10.1016/j.euroecorev.2012.08.001

Innes, R. & Mitra, A. (2013). Is Dishonesty Contagious? *Economic Inquiry, 51*, 722-734. https://doi.org/10.1111/j.1465-7295.2012.00470.x Kam, C. C. S., Hue, M. T., & Cheung, H. Y. (2018) Academic dishonesty among Hong Kong secondary school students: application of theory of planned behavior. *Educational Psychology, 38*(7), 945-963. https://doi.org/10.1080/01443410.2018.1454588

Jiang, D., Li, T. & Hamamura, T. (2015). Societies' tightness moderates age differences in perceived justifiability of morally debatable behaviors. *Eur. J. Ageing*, *12*, 333–340. https://doi.org/10.1007/s10433-015-0346-z

Johnston, R., Jones, K., & Manley, D. (2018). Confounding and collinearity in regression analysis: a cautionary tale and an alternative procedure, illustrated by studies of British voting behaviour. *Qual Quant., 52*(4):1957-1976. https://doi.org/s11135-017-0584-6

Jordan, A. E. (2001). College Student Cheating: The Role of Motivation, Perceived Norms, Attitudes, and Knowledge of Institutional Policy. *Ethics & Behavior, 11*(3), 233-247. https://doi.org/10.1207/S15327019EB1103_3

Kam, C. C. S., Hue, M. T., & Cheung, H. Y. (2018). Academic dishonesty among Hong Kong secondary school students: application of theory of planned behaviour. *Educational Psychology, 38*(7), 945-963. https://www.tandfonline.com/doi/abs/10.1080/01443410.2018.1454588

Keizer, K., Lindenberg, S. & Steg, L. (2008). The spreading of disorder. *Science*, *322*. https://doi.org/10.1126/science.1161405

Kirchler, E., Hoelzl, E., & Wahl, I. (2008). Enforced versus voluntary tax compliance: The "slippery slope" framework. *Journal of Economic psychology, 29*(2), 210-225. https://doi.org/10.1016/j.joep.2007.05.004

Kish-Gephart, J. J., Harrison, D. A., & Treviño, L. K. (2010). Bad apples, bad cases, and bad barrels: Meta-analytic evidence about sources of unethical decisions at work. *Journal of Applied Psychology, 95*, 1–31.

Kreft, I. G. & De Leeuw, J. (1998). *Introducing multilevel modeling.* Sage.

Lai, M. H., & Kwok, O. M. (2015). Examining the rule of thumb of not using multilevel modeling: The “design effect smaller than two” rule. The Journal of Experimental Education, 83(3), 423-438. https://doi.org/10.1080/00220973.2014.907229

La Porta, R., Lopez-de Silanes, F., Shleifer, A., & Vishny, R. The quality of government. (1999). *J. Law Econ. Organ.*, *15*, 222–279. https://doi.org/10.1093/jleo/15.1.222

Letki, N. Investigating the Roots of Civic Morality: Trust, Social Capital, and Institutional Performance. (2006). *Polit. Behav.*, *28*, 305–325. https://doi.org/10.1007/s11109-006-9013-6

Leung, K., Morris, M. (2015). Values, schemas, and norms in the culture–behavior nexus: A situated dynamics framework. *J Int Bus Stud*, *46*, 1028–1050. https://doi.org/10.1057/jibs.2014.66

Liang, Y., Liu, L., Tan, X., Huang, Z., Dang, J., & Zheng, W. (2016). The Effect of Self-Esteem on Corrupt Intention: The Mediating Role of Materialism. *Frontiers in psychology*, *7*, 1063. https://doi.org/10.3389/fpsyg.2016.01063

Lindgreen, A. (2004). Corruption and Unethical Behavior: Report on a Set of Danish Guidelines. *Journal of Business Ethics, 51*(1), 31-39. https://doi.org/10.1023/B:BUSI.0000032388.68389.60

Lobel, T. E. & Levanon, I. (1988). Self-esteem, need for approval, and cheating behavior in children. *Journal of Educational Psychology*, *80*(1), 122–123. https://doi.org/10.1037/0022-0663.80.1.122

Lois, G, & Wessa, M. (2020). Honest mistake or perhaps not: The role of descriptive and injunctive norms on the magnitude of dishonesty. *J Behav Dec Making*, 1– 15. https://doi.org/10.1002/bdm.2196

Masson, T. & Fritsche, I. (2019). Loyal peripherals? The interactive effects of identification and peripheral group membership on deviance from non-beneficial ingroup norms. *Eur. J. Soc. Psychol., 49*, 76-92. https://doi.org/10.1002/ejsp.2501

Mattern, J. L., & Neighbors, C. (2004). Social norms campaigns: Examining the relationship between changes in perceived norms and changes in drinking levels. *Journal of Studies on Alcohol, 65,* 489–493. https://doi.org/10.15288/jsa.2004.65.489

Mazar, N., Amir, O., & Ariely, D. (2008). The dishonesty of honest people: A theory of self-concept maintenance. *Journal of marketing research, 45*(6), 633-644. https://doi.org/10.1509/jmkr.45.6.633

McCabe, D.L., & Trevino, L.K. (1997). Individual and Contextual Influences on Academic Dishonesty: A Multicampus Investigation. *Research in Higher Education, 38,* 379–396. https://doi.org/10.1023/A:1024954224675

McCabe, D. L., Trevino, L. K., & Butterfield, K. D. (2001). Cheating in Academic Institutions: A Decade of Research. *Ethics & Behavior, 11*(3), 219-232. https://doi.org/10.1207/S15327019EB1103_2

McLeish, K. N. & Oxoby, R. J. (2007). Identity, Cooperation, and Punishment. IZA Discussion Paper 2572. *Institute of Labor Economics* (IZA). https://ssrn.com/abstract=961379

Melgar, N., Rossi, M., Smith, T. W. (2010). The Perception of Corruption. *International Journal of Public Opinion Research, 22*(1), 120–131. https://doi.org/10.1093/ijpor/edp058

Mitra, A. & Shahriar, Q. (2020). Why is dishonesty difficult to mitigate? The interaction between descriptive norm and monetary incentive. *Journal of Economic Psychology, 80*(C). https://doi.org/10.1016/j.joep.2020.102292

Modesto, J. G. N. (2018). *"Por que corruptos são corruptos?": propositura e apresentação de evidências do Modelo Analítico da Corrupção*. (Doctoral dissertation, University of Brasília, Brazil). Retrieved from https://repositorio.unb.br/handle/10482/34434

Montgomery, D. C., Peck, E. A. & Vining, G. G. (2001). *Introduction to Linear Regression Analysis.* 3rd Edition. John Wiley & Sons.

Montinola, G. & Jackman, R. (2002). Sources of corruption: A cross-country study. *British Journal of Political Science, 32*, 147-170. https://doi.org/10.1017/S0007123402000066

Morris, Michael W. & Hong, Ying-yi & Chiu, Chi-yue & Liu, Zhi, (2015). Normology: Integrating insights about social norms to understand cultural dynamics. *Organizational Behavior and Human Decision Processes, 129*(C), 1-13. https://doi.org/10.1016/j.obhdp.2015.03.001

Muthén, B., & Satorra, A. (1995). Complex sample data in structural equation modeling. *Sociological Methodology, 25*, 267–316. https://doi.org/10.2307/271070

Nahar, H. S. (2019). Academic malaise among future Muslim accountants: role of piety. *Journal of Islamic Accounting and Business Research, 10*(3), 421-447. https://doi.org/10.1108/JIABR-01-2017-0012

Nyborg, K., Anderies, J. M., Dannenberg, A., Lindahl, T., Schill, C., Schlüter, M., Adger, W. N., Arrow, K. J., Barrett, S., Carpenter, S., Chapin, F. S., Crépin, A. S., Daily, G., Ehrlich, P., Folke, C., Jager, W., Kautsky, N., Levin, S. A., Madsen, O. J., ... De Zeeuw, A. (2016). Social norms as solutions. *Science, 354*(6308), 42-43. https://doi.org/10.1126/science.aaf8317

Oishi, S., Kesebir, S., & Diener, E. (2011). Income Inequality and Happiness. *Psychological Science, 22*(9), 1095–1100. https://doi.org/10.1177/0956797611417262

Oliver, M. B., Raney, A. A., & Bryant, J. (2019). *Media Effects: Advances in Theory and Research*. Taylor and Francis. https://doi.org/10.4324/9780429491146

Ouellette, J. A. & Wood, W. (1998). Habit and intention in everyday life: The multiple processes by which past behavior predicts future behavior. *Psychological Bulletin, 124*(1), 54-74. https://doi.org/10.1037/0033-2909.124.1.54

Pascual-Ezama, D., Fosgaard, T. R., Cardenas, J-C., Kujal, P., Veszteg, R. F., Gil-Gómez de Liaño, B., ... Brañas-Garza, P. (2015). Context-dependent cheating: experimental evidence from 16 countries. *Journal of Economic Behavior & Organization, 116*, 379–386. https://doi.org/10.1016/j.jebo.2015.04.020

Payne, B. K., Brown-Iannuzzi, J. L., & Hannay, J. W. (2017). Economic inequality increases risk taking. *Proceedings of the National Academy of Sciences, 114*(18), 4643-4648. https://www.pnas.org/doi/abs/10.1073/pnas.1616453114

Pickett, K. & Wilkinson, R. (2010). Inequality: An underacknowledged source of mental illness and distress. *British Journal of Psychiatry, 197*(6), 426-428. https://doi.org/10.1192/bjp.bp.109.072066

Pittarello, A., Rubaltelli, E., & Motro, D. (2016). Legitimate lies: The relationship between omission, commission, and cheating. *Eur. J. Soc. Psychol., 46*, 481– 491. https://doi.org/10.1002/ejsp.2179

Poisson, M. (2010). *Corruption and Education*. UNESCO. International Institute for Educational Planning.

Rajah-Kanagasabai, C. J., & Roberts, L. D. (2015). Predicting self-reported research misconduct and questionable research practices in university students using an augmented Theory of Planned Behavior. *Frontiers in psychology, 6*, 535. https://doi.org/10.3389/fpsyg.2015.00535

Raudenbush, S. W., & Bryk, A. S. (2002). *Hierarchical linear models: Applications and data analysis methods* (Vol. 1). Sage.

Rimal, R. N. (2008). Modeling the relationship between descriptive norms and behaviors: A test and extension of the theory of normative social behavior (TNSB). *Health Communication, 23(2),* 103-116. https://www.tandfonline.com/doi/abs/10.1080/10410230801967791

Rimal, R. N. & Lapinski, M. K. (2015). A Re-Explication of Social Norms, Ten Years Later. *Communication Theory, 25*(4), 393–409. https://doi.org/10.1111/comt.12080

Ritov, I. & Baron, J. (1990). Reluctance to vaccinate: Omission bias and ambiguity. *J. Behav. Decis. Making, 3,* 263-277. https://doi.org/10.1002/bdm.3960030404

Robert, I., & Arnab, M. (2013). Is dishonesty contagious?. *Economic Inquiry, 51*(1), 722-734.

Rose-Ackerman, S. (2001). Trust and honesty in post-socialist societies. *Kyklos, 54(2-3),* 415-443. https://doi.org/10.1111/1467-6435.00161

Rosenberg, M. (1965). *Society and the adolescent self-image*. University Press.

Runde, D. F, & Metzger, C. (2020). Fighting Corruption for U.S. Economic and National Security Interests. *CSIS Project on Prosperity and Development*. https://csis-prod.s3.amazonaws.com/s3fs-public/publication/20413_Metzger_WEB%20FINAL.pdf?nE5Dx_MoUeOV8cvId_nK5ufJpY0dh3r4

Sands, M. L. (2017). Exposure to inequality affects support for redistribution. *Proceedings of the National Academy of Sciences of the United States of America, 114,* 663-668. https://doi.org/10.1073/pnas.1615010113

Santos, P. J., & Maia, J. (2003). Análise factorial confirmatória e validação preliminar de uma versão Portuguesa da escala de auto-estima de Rosenberg. *Psicologia: Teoria, Investigação e Prática, 8*(2), 253–268. https://doi.org/2004-11323-005

Shalvi, S., Dana, J., Handgraaf, M.J.J., & De Dreu, C.K.W. (2011). Justified ethicality: Observing desired counterfactuals modifies ethical perceptions and behavior. *Organizational Behavior and Human Decision Processes, 115*(2), 181-190. https://doi.org/10.1016/j.obhdp.2011.02.001

Shamir, B., House, R. J., & Arthur, M. B. (1993). The Motivational Effects of Charismatic Leadership: A Self-Concept Based Theory. *Organization Science, 4*(4), 577-594. https://doi.org/10.1287/orsc.4.4.577

Shum, C., Gosh, A., Garlington, J. (2020). Why Won't She Break Rules to Promote Service? Effects of Gender, Gender Identification, and Honesty. *International Journal of Hospitality Management, 90*, 1-9. https://doi.org/10.1016/j.ijhm.2020.102607

Shweder, R. A. (1999). Why cultural psychology?. *Ethos, 27*(1), 62-73.

Signor, D, Kim, J, & Tebaldi, E. (2019). Persistence and determinants of income inequality: The Brazilian case. *Rev Dev Econ., 23*, 1748– 1767. https://doi.org/10.1111/rode.12598

Simola, S. (2017). Managing for academic integrity in higher education: Insights from behavioral ethics. *Scholarship of Teaching and Learning in Psychology, 3*(1), 43–57. https://doi.org/10.1037/stl0000076

Solt, F. (2019). The Standardized World Income Inequality Database. *Harvard Dataverse* [dataset], v. 8-9. https://doi.org/10.7910/DVN/LM4OWF

Sommet, N., & Morselli, D. (2021). Keep Calm and Learn Multilevel Linear Modeling: A Three-Step Procedure Using SPSS, Stata, R, and Mplus. *International Review of Social Psychology, 34*(1), 24. http://doi.org/10.5334/irsp.555

Stamkou, E., van Kleef, G. A., Homan, A. C., Gelfand, M. J., van de Vijver, F. J. R., van Egmond, M. C., Boer, D., Phiri, N., Ayub, N., Kinias, Z., Cantarero, K., Efrat Treister, D., Figueiredo, A., Hashimoto, H., Hofmann, E. B., Lima, R. P., & Lee, I.-C. (2019). Cultural

Collectivism and Tightness Moderate Responses to Norm Violators: Effects on Power Perception, Moral Emotions, and Leader Support. *Personality and Social Psychology Bulletin, 45*(6), 947–964. https://doi.org/10.1177/0146167218802832

Stephens, J., Young, M., Michael, F., & Calabrese, T. (2007). Does moral judgment go offline when students are online? A comparative analysis of undergraduates' beliefs and behaviors related to conventional and digital cheating. *Ethics and Behavior, 17*(3):233 – 254. https://doi.org/10.1080/10508420701519197

Tajfel, H. (1982). Social psychology of intergroup relations. *Annual Review of Psychology, 33*, 1-39. https://doi.org/10.1146/annurev.ps.33.020182.000245

Tavits, M. (2010). Why do people engage in corruption? The case of Estonia. *Social forces, 88(3)*, 1257-1279.

Tenbrunsel, A. E., & Messick, D. M. (2004). Ethical fading: The role of self-deception in unethical behavior. *Social Justice Research, 17*, 223-236. https://doi.org/10.1023/B:SORE.0000027411.35832.53

Thau, S., Derfler-Rozin, R., Pitesa, M., Mitchell, M. S., & Pillutla, M. M. (2015). Unethical for the sake of the group: Risk of social exclusion and pro-group unethical behavior. *Journal of Applied Psychology, 100*(1), 98-113. http://dx.doi.org/10.1037/a0036708

Thielmann, I., & Hilbig, B. E. (2019). No gain without pain: The psychological costs of dishonesty. *Journal of Economic Psychology, 71*, 126-137. https://doi.org/10.1016/j.joep.2018.06.001

Thomson, S. (2017). We waste $2 trillion a year on corruption. *World Economic Forum*. https://www.weforum.org/agenda/2017/01/we-waste-2-trillion-a-year-on-corruption-here-are-four-better-ways-to-spend-that-money/

Transparency International. (2021). *Corruption Perceptions Index 2019.* https://www.transparency.org/en/cpi/2019

Triandis, H. C. (1989). Self and social behavior in differing cultural contexts. *Psychological Review, 96,* 506-520. https://doi.org/10.1037/0033-295X.96.3.506

Uz, I. (2015). The Index of Cultural Tightness and Looseness Among 68 Countries. *Journal of Cross-Cultural Psychology*, *46*(3), 319–335. https://doi.org/10.1177/0022022114563611

Verkooijen, K. T., de Vries, N. K., & Nielsen, G. A. (2007). Youth crowds and substance use: The impact of perceived group norm and multiple group identification. *Psychology of Addictive Behaviors, 21*(1), 55–61. https://doi.org/10.1037/0893-164X.21.1.55

Welsh, D. T., Ordóñez, L. D., Snyder, D. G., & Christian, M. S. (2015). The slippery slope: How small ethical transgressions pave the way for larger future transgressions. *Journal of Applied Psychology, 100*(1), 114-127. http://dx.doi.org/10.1037/a0036950

Weng, Q. & Carlsson, F. (2015). Cooperation in teams: The role of identity, punishment, and endowment distribution. *J. Public Econ., 126,* 25–38. https://doi.org/10.1016/j.jpubeco.2015.03.007

Wenzel, M. (2004). An analysis of norm processes in tax compliance. *Journal of Economic Psychology, 25,* 213-228. https://doi.org/10.1016/S0167-4870(02)00168-X

White, K. M., Hogg, M. A., & Terry, D. J. (2002). Improving Attitude-Behavior Correspondence Through Exposure to Normative Support From a Salient Ingroup. *Basic and Applied Social Psychology, 24*(2), 91-103. https://doi.org/10.1207/S15324834BASP2402_2

Williams, M. N., Grajales, C. A. G., & Kurkiewicz, D. (2013). Assumptions of multiple regression: Correcting two misconceptions. *Practical Assessment, Research, and Evaluation, 18*(1), 11. https://doi.org/10.7275/55hn-wk47

World Bank. (2021). GINI index (World Bank estimate). http://data.un.org/Data.aspx?d=WDI&f=Indicator_Code%3aSI.POV.GINI%3bCountry_Code%3aAUS&c=2,4,5&s=Country_Name:asc,Year:desc&v=1

Zafar, B. (2011). An Experimental Investigation of Why Individuals Conform. *European Economic Review, 55*, 774-798. https://doi.org/10.1016/j.euroecorev.2011.01.002

Zaleskiewicz, T., Gasiorowska, A., Kesebir, P., Luszczynska, A., & Pyszczynski, T. (2013). Money and the fear of death: The symbolic power of money as an existential anxiety buffer. *Journal of Economic Psychology, 36*(C), 55-67. https://doi.org/10.1016/j.joep.2013.02.008

Zhang, L. (2009). An Exchange Theory of Money and Self-Esteem in Decision Making. *Review of General Psychology, 13*(1), 66–76. https://doi.org/10.1037/a0014225

Appendix A

Scenarios presented to participants of Study 1

High stakes – Ingroup – Passive corruption

You hold a position of public interest and are responsible for contracting with a construction company. The estimated value of the contract is R$ 10 million. You have a ***friend*** who is an expert in the field, and he proposes that you close the deal with him for R$ 16 million and that, in exchange, he will split the difference and give R$ 3 million to you.

1 - Very unlikely 10 - Very likely.

You are a public officer in the financial market and are able to access inside information, which, if released, can protect private companies. You have a ***friend*** who works in the private sector, and he asked for access to information. He offers a percentage of the gain, which totalizes R$ 3 million.

1 - Very unlikely 10 - Very likely.

High stakes – Ingroup – Active corruption

You work for a private company in the construction industry. You have a ***friend*** who is a public officer and is responsible for contracting with the private sector. The estimated value for a contract whose bidding was launched is R$ 10 million. What is the probability that you will offer R$ 3 million to close the deal with your friend for R$ 16 million?

1 - Very unlikely 10 - Very likely.

You are a public officer and are responsible for contracting with a construction company. The estimated value for the contract is R$ 10 million. A businessman ***who is your friend*** suggests that you close the deal with him for R$ 16 million and that, in return, he will give you R$ 3 million.

1 - Very unlikely 10 - Very likely.

High stakes – Outgroup - Active corruption

You work for a private company in the construction industry. The estimated amount for contract whose bidding was launched is R$ 10 million. How likely is that you will offer R$ 3 million to an ***unknown*** public employee to close the deal for R$ 16 million?

1 - Very unlikely 10 - Very likely.

You work in the private financial sector and you want to access confidential information that will bring you financial benefits. How likely is it that you will offer an ***unknown*** public employee a percentage of the gain, which totalizes R$ 3 million, to get the information?

1 - Very unlikely 10 - Very likely.

High stakes – Ingroup - Active corruption

You work for a private company in the construction industry. You have a ***friend*** who is a civil servant and is responsible for carrying out contracts with the private sector. The estimated value for a work whose bidding was launched is R$ 10 million. What is the probability that you offer R$3 million to close the deal with your friend for R$16 million? In this situation, rate how likely you are to offer the money.

1 - Very unlikely 10 - Very likely.

You work in the private financial sector and want access to confidential information that will bring you financial benefit. Your ***friend*** is a public official and has access to this privileged information. How likely are you to offer a percentage of the winnings, which totalizes R$ 3 million, to obtain the information? In this situation, rate how likely you are to offer the money.

1 - Very unlikely 10 - Very likely.

Low stakes – Ingroup – Passive corruption

You work at the State Transit Department. When you stop a driver, who is your ***friend***, to check if your vehicle is regular, you encounter some irregularities. You can fine him in the amount of R$ 600. The driver offers you the amount of R$ 100 for you not to fine him.

1 - Very unlikely 10 - Very likely.

You work for a regulatory agency. A ***friend*** who needs a document urgently offers a "treat" for you to expedite the process for him. He offers you R$ 100 for you to do this.

1 - Very unlikely 10 - Very likely.

Low stakes – Ingroup – Active corruption

You are stopped in a blitz. The traffic officer, who is your ***friend***, encounters some irregularities. He can fine you in the amount of R$ 600. Assuming you have the money, how likely is it that you will offer R$ 100 not to be fined?

1 - Very unlikely 10 - Very likely.

You urgently need a document and have a ***friend*** who works at the regulatory agency that issues the documentation. Assuming you have the money, how likely is it that you will offer a "treat" of R$ 100 to expedite the process for you?

1 - Very unlikely 10 - Very likely.

Low stakes – Outgroup - Passive corruption

You work at the State Transit Department. When you stop an ***unknown*** driver to check if his vehicle is working properly, you encounter some irregularities. You can fine him in the amount of R$ 600. The driver offers you the value of R$ 100 for you not to fine you.

1 - Very unlikely 10 - Very likely.

You work for a regulatory agency. A ***stranger*** who needs a document urgently offers a "treat" for you to expedite the process for him. He offers you R$ 100 to do this.

1 - Very unlikely 10 - Very likely.

Low stakes – Outgroup - Active corruption

You're stopped in a blitz. A traffic agent ***who you do not know*** has some irregularities. He can fine you in the amount of R$ 600. Assuming you have the money, how likely is it that you will offer R$ 100 not to be fined?

1 - Very unlikely 10 - Very likely.

You need a document urgently. Assuming you have the money, how likely is it that you will offer R$ 100 to a regulatory official ***who you do not know*** to expedite the process for you?

1 - Very unlikely 10 - Very likely.

Appendix B

Social norms measure applied in Study 1

Family Injunctive Norms

My family members think there is nothing wrong in jumping a waiting line.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members think that there is nothing wrong in receiving extra change by mistake and not giving it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

Friends' Injunctive Norms

My friends think there is nothing wrong in jumping a waiting line.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends think that there is nothing wrong in receiving extra change by mistake and do not giving it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

General Injunctive Norms

People in general think there is nothing wrong in jumping a waiting line.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general think that there is nothing wrong in receiving extra change by mistake and do not giving it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

Family Descriptive Norms

My family members jump waiting lines.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members see an elderly person and do not offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members receive extra change by mistake and do not give it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

Friends' Descriptive Norms

My friends jump waiting lines.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends see an elderly person and do not offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends receive extra change by mistake and do not give it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

General Descriptive Norms

People in general jump waiting lines.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general see an elderly person and do not offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general receive extra change by mistake and do not give it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

Appendix C

Rosenberg Self-Esteem Scale

I feel that I am a person of worth.

1- strongly disagree 2- partially disagree 3- neither agree nor disagree 4- partially agree 5- strongly agree

I feel that I have a number of good qualities.

1- strongly disagree 2- partially disagree 3- neither agree nor disagree 4- partially agree 5- strongly agree

On the whole, I am satisfied with myself.

1- strongly disagree 2- partially disagree 3- neither agree nor disagree 4- partially agree 5- strongly agree

At times I think I am no good at all.

1- strongly disagree 2- partially disagree 3- neither agree nor disagree 4- partially agree 5- strongly agree

I certainly feel useless at times.

1- strongly disagree 2- partially disagree 3- neither agree nor disagree 4- partially agree 5- strongly agree

Appendix D

Past Dishonest Behavior Scale

I have already jumped a waiting line.

1-Never 2-A few times 3-Some times 4-Many times 5-Always

I have already seen an elderly person and did not offer my seat on a bus.

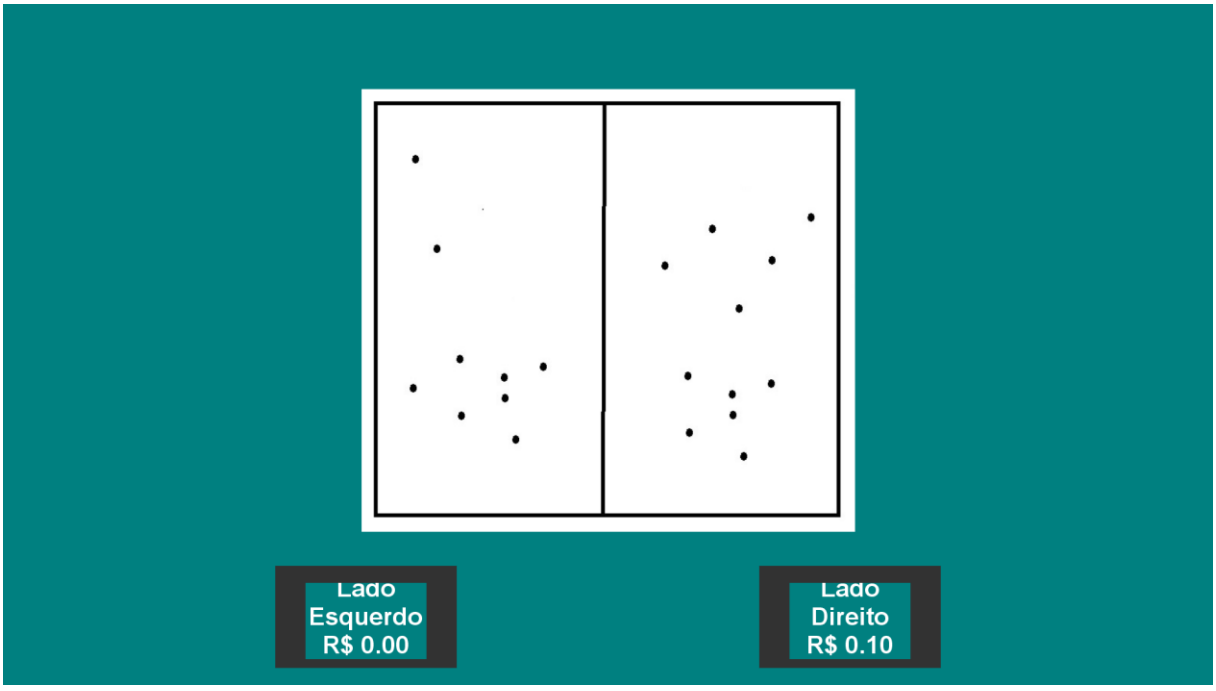
1-Never 2-A few times 3-Some times 4-Many times 5-Always

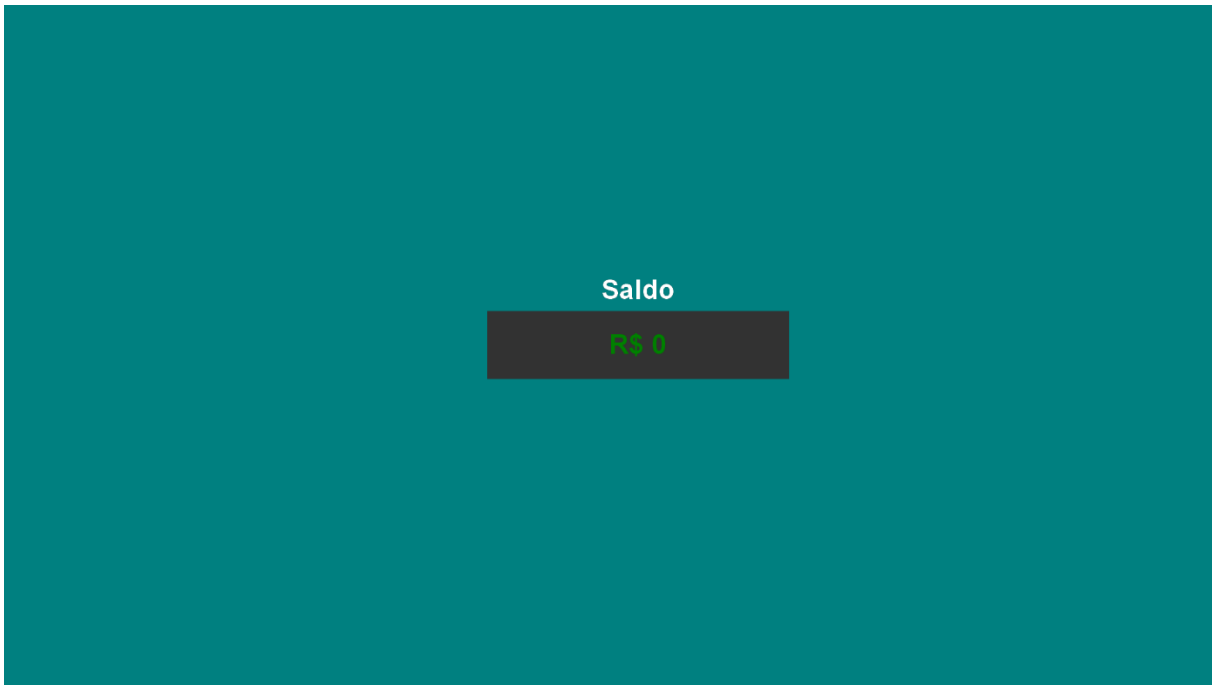
I have already received extra change by mistake and have not given it back.

1-Never 2-A few times 3-Some times 4-Many times 5-Always

Appendix E

Screenshot of what participants saw during the dots game. A total of 20 screens were presented to them. "Lado esquerdo" means left side and "lado direito" means right side. "Saldo" means balance. Participants had to press the key E for the left side and the key I for the right side. After each trial, participants saw the current balance. If they chose the right side, 10 cents of Real would be added to the balance. If they chose the left side, nothing would be added to the balance.





Appendix F

Injunctive and descriptive norms measure applied in Study 2

Family Injunctive Norms

My family members think there is nothing wrong in jumping a waiting line.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members think that there is nothing wrong in receiving extra change by mistake and not giving it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members believe that it is acceptable to take a candy in a store and leave without paying it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members think that there is nothing wrong in missing a class and asking a classmate to sign the attendance list for them.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members believe that it is acceptable to borrow an object from a friend and never returned it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

Friends' Injunctive Norms

My friends think there is nothing wrong in jumping a waiting line.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends think that there is nothing wrong in receiving extra change by mistake and not giving it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends believe that it is acceptable to take a candy in a store and leave without paying it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends think that there is nothing wrong in missing a class and asking a classmate to sign the attendance list for them.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My friends believe that it is acceptable to borrow an object from a friend and never returned it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

General Injunctive Norms

People in general think there is nothing wrong in jumping a waiting line.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general believe it is acceptable to see an elderly person and not to offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general think that there is nothing wrong in receiving extra change by mistake and not giving it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general believe that it is acceptable to take a candy in a store and leave without paying it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general think that there is nothing wrong in missing a class and asking a classmate to sign the attendance list for them.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general believe that it is acceptable to borrow an object from a friend and never returned it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

Family Descriptive Norms

My family members jump waiting lines.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members see an elderly person and do not offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members receive extra change by mistake and not give it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members take a candy in a store and leave without paying it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members miss classes and asking a classmate to sign the attendance list for them.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

My family members borrow an object from a friend and never returned it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

Friends' Descriptive Norms

My friends jump waiting lines.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree
4-Partially agree 5-Strongly agree

My friends see an elderly person and do not offer his or her seat on a bus.
1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree
4-Partially agree 5-Strongly agree

My friends receive extra change by mistake and not give it back.
1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree
4-Partially agree 5-Strongly agree

My friends take a candy in a store and leave without paying it.
1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree
4-Partially agree 5-Strongly agree

My friends miss classes and asking a classmate to sign the attendance list for them.
1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree
4-Partially agree 5-Strongly agree

My friends borrow an object from a friend and never returned it.
1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree
4-Partially agree 5-Strongly agree

General Descriptive Norms

People in general jump waiting lines.
1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree
4-Partially agree 5-Strongly agree

People in general see an elderly person and do not offer his or her seat on a bus.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general think receive extra change by mistake and not give it back.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general take a candy in a store and leave without paying it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general missing classes and asking a classmate to sign the attendance list for them.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree

People in general borrow an object from a friend and never returned it.

1-Strongly disagree 2-Partially disagree 3- Neither agree nor disagree

4-Partially agree 5-Strongly agree