Felipe Turatto Baptista

The Salience of Corruption and Its Effects on Individuals' Dishonesty and Social Trust

Brasília, Distrito Federal

26 de março de 2021

Felipe Turatto Baptista

The Salience of Corruption and Its Effects on Individuals' Dishonesty and Social Trust

Trabalho final requerido para fins de conclusão de Doutoramento em Ciências Econômicas na Universidade de Brasília.

Universidade de Brasília – UnB

Orientador: Prof. Dr. (PhD) Bernardo Pinheiro Machado Mueller

Brasília, Distrito Federal

26 de março de 2021

F315

Baptista, Felipe Turatto
The Salience of Corruption and Its Effects on Individuals' Dishonesty and Social Trust/ Felipe Turatto Baptista; Orientador: Bernardo Pinheiro Machado Mueller. – Brasília, 2021
87 p.

Tese (Doutorado) – Universidade de Brasília – UnB, 2019

1. Economia Comportamental. 2. Economia Experimental. 3. Corrupção. 4. Normas Sociais. 5. Desonestidade. 6. Confiança Social. I. Mueller, Bernardo Pinheiro Machado, orient. II. Universidade de Brasília. III. Faculdade de Economia, Administração, Contabilidade e Gestão de Políticas Públicas. IV. Doutorado

Felipe Turatto Baptista

The Salience of Corruption and Its Effects on Individuals' Dishonesty and Social Trust

Trabalho final requerido para fins de conclusão de Doutoramento em Ciências Econômicas na Universidade de Brasília.

Trabalho Ssujeito a avaliação pela banca abaixo constituída:

Prof. Dr. (PhD) Bernardo Pinheiro Machado Mueller
Universidade de Brasília

Prof. Dr. Rafael Terra de Menezes
Universidade de Brasília

Prof. Dr. Ana Maria Bianchi
Universidade de São Paulo (USP)

Prof. Dr. Anderson Mutter Teixeira
Universidade de Goiás

Prof. Dr. (PhD) José Guilherme de Lara Resende
Universidade de Brasília
(Suplente)

Brasília, Distrito Federal
7 de fevereiro de 2021

À Pig

Agradecimentos

Esta tese não teria acontecido sem a valiosa participação de um grande número de voluntários no experimento, e muitos outros que me ajudaram a divulgar o instrumento de pesquisa e convidar novos participantes. Em especial, agradeço a Denise, a Lorena e a Karenn pelo empenho e efetividade em aumentar o número de participantes - cada uma delas responsável individualmente por talvez centenas de participantes. Agradeço também ao Fernando e Danilo, que me ajudaram a aplicar o piloto do experimento com o público universitário de Barretão. Aos professores do Departamento de Economia da FACE UnB: Rafael, Carol, Vander e meu orientador Bernardo, que me permitiram aplicar pilotos nas turmas em que lecionavam. Ao pós-graduando Matheus e o graduando Breno, pela ajuda nos pilotos.

Agradeço também aos comentários certeiros dos professores Bernardo, Rafael e José Guilherme durante minha qualificação, e a disposição e boa vontade com que o Rafael Barcelos me ajudou na formatação e no uso do Látex.

Aos companheiros de jornada: Camila, Marcleiton, Pedrão e Vanessa pelos bons momentos desfrutados no café da Faculdade de Direito.

Aos Funcionários da FACE - UnB.

Às aulas dos professores Bernardo Mueller, Maurício Bugarin, Rafael Terra, Vander Lucas e, em especial, o excelente curso ministrado pelo professor Michael Christian Lehmann.

Por fim, agradeço a minha família e minha esposa Karenn pela paciência e companheirismo.

Felipe Turatto Baptista[1]
Brasília, Distrito Federal, 26 de março de 2021

[1] Sugestões, críticas podem ser feitas pelos contatos de e-mail felipeturatto@hotmail.com.

Resumo

Esta tese apresenta dois ensaios que investigam os efeitos da saliência da corrupção política sobre as preferências e o comportamento dos indivíduos. Para tanto, foi montado um experimento online com participantes brasileiros, utilizando surveys e o dice-rolling paradigm de uma forma inovadora. O primeiro ensaio visa compreender os efeitos da percepção da corrupção na honestidade dos cidadãos em uma tarefa simples e não relacionada à política. Especificamente, foi testado se os indivíduos que leram um texto relatando que um projeto de lei foi aprovado depois que políticos receberam um suborno trapacearam mais em um jogo subsequente do que aqueles que leram que a mesma legislação foi aprovada após um processo de negociação. Além disso, também foi testado se a carga moral da legislação aprovada e a identidade política dos participantes em relação à dos políticos corruptos moderam esses efeitos. Os resultados mostram que, em um contexto moralmente carregado, quando a identidade política dos corruptos é revelada, participantes com a identidade oposta trapaceiam para sinalizar honestidade, enquanto participantes sem uma identidade política definida trapaceiam para obter ganho material. O estudo também fornece evidências de que quanto mais importante for a identidade política para os participantes, maiores serão os efeitos da corrupção em seu comportamento. O segundo ensaio examina se a saliência da corrupção política pode afetar a confiança social dos indivíduos e se esse efeito é mediado pelo contexto em que ocorre a corrupção e pela identidade política do indivíduo. Verificou-se que a percepção da corrupção diminui a confiança social de indivíduos que se identificam como direitistas e centristas, mas apenas em um contexto moralmente carregado. Nenhum efeito significativo foi encontrado para os participantes de esquerda.

Palavras-chave: Comportamental, Comportamento Individual, Confiança Social, Corrupção, Desonestidade, Experimentos de Laboratório, Normas Sociais.

Abstract

This thesis presents two essays that investigate the effects of the salience of political corruption on the preferences and behavior of individuals. To this end, an online experiment was set up with Brazilian subjects, using surveys and the dice-rolling paradigm in an innovative way. The first essay aims to understand the effects of perceived corruption on citizens' honesty in a simple and not related-with-politics task. Specifically, it was tested whether individuals who read a text reporting that a bill was passed after politicians received a bribe cheat more in a subsequent game than those who read that the same legislation was passed after a negotiation process. In addition, it was also tested whether the moral load of the passed legislation and the political identity of the participants in relation to that of corrupt politicians moderate these effects. The results show that, in a morally loaded context, when the political identity of the corrupt is disclosed, participants with the opposite identity cheat to signal honesty, while participants without a defined political identity cheat for material gain. The study also provides evidence that the more important political identity is for participants, the greater the effects of corruption on their behavior. The second essay examines whether the salience of political corruption can affect the social trust of individuals and whether this effect is mediated by the context in which corruption occurs and by the individual's political identity. It was found that the perception of corruption diminishes the social trust of individuals who claim to be right-wing and centrist, but only in a morally loaded context. No significant effects were found for the left-wing participants.

Keywords: Behavioral, Corruption, Dishonesty, Individual Behavior, Laboratory Experiments, Social Norms, Social Trust.

Lista de ilustrações

Lista de tabelas

Sumário

Preface

Ancient theories suggested that corruption might not be a problem, but a solution found by resourceful citizens to circumvent institutional failures and the indolence of public servants (Leff, 1964; Huntington, 1968). In this context, corruption would be beneficial for economic growth, as it would provide individuals with mechanisms to avoid bureaucratic delays and incentives for public officials to work with commitment and diligence. In the past few decades, however, these theories have lost influence. Numerous studies have emerged documenting the deleterious effects of corruption on investment and economic growth,[2] the provision and quality of essential public services such as health and education,[3] the diversion of capital, talents and technology from innovative activities that generate more wealth for purely extractive activities[4] and redistributive effects that harm mainly the most vulnerable.[5]

Theoretical studies have shown that widespread corruption can also signal society's tolerance of deviations from norms, especially when practiced by senior bureaucrats and occurs without punishment (Cadot, 1987). In this case, corruption can become the result of an optimal equilibrium with so many corrupt individuals that it is no longer a deviation and becomes the norm itself (Andvig and Moene, 1990) – although it is still condemned by the public.

New empirical studies have attempted to understand the effects of corruption on the values, preferences and behavior of individuals.[6] They document that the perception of corruption increases people's propensity to become involved in corruption (Dong et al., 2012; Kobis et al., 2015) and can lead and justify citizens' bad behavior (Banerjee et al., 2012). This thesis joins these efforts and presents two essays (chapters) that seek to understand the side effects of political corruption in the preferences for social trust and in the dishonest behavior of individuals.

---

2 See Shleifer and Vishny (1993), Mauro (1995), Fisman and Svensson (2007) and Johnson et al. (2011).

3 See Mauro (1998), Baicker and Staiger (2005) and Chaudhury et al. (2006) for effects on health provision, and Mauro (1998), Reinikka and Svensson (2004, 2005) and Ferraz et al. (2012) for effects on education.

4 See Baumol (1990), Murphy et al. (1991, 1993), Xu and Yano (2017) and Paunov (2016).

5 See Gupta et al. (2002), Olken (2006), Hunt (2007) and Justesen and Bjornskov (2014).

6 Preferences have long been treated as exogenous in the economy and are still one of the main hypotheses underlying economic analysis (Stigler and Becker, 1977). This hypothesis, however, has been relaxed by new advances in behavioral and experimental economics. These studies suggest that individual preferences can be shaped by economic, social and biological factors and the interactions between them (Fehr and Hoff, 2011).

The first chapter looks for experimental evidence that the salience of political corruption affects participants' honesty in a not related-with-politics task. For this, an online version of the dice-rolling paradigma is set up, where before rolling the dice the subjects participate in a reading test.[7] The aim is to verify that those who read a text reporting that a bill was passed after politicians received a bribe cheated more in a subsequent game than those who read that the same legislation passed after a negotiation process. In addition, it is also tested whether the moral load of the bill and the political identity of the participants in relation to that of the corrupt politicians moderate the expected effects.

The dice-rolling paradigm uses simple, non-invasive experiments that maintain participants' anonymity and privacy. The subjects report the outcome of a die rolled privately and their gain depends on the reported result. As the experimenter is not able to monitor the actual result of the dice, income-maximizing participants have an incentive to misreport results that are not associated with higher returns. This design does not allow researchers to detect dishonesty at the individual level – which reduces potential demand effects, social image problems and ethical concerns – but as the experimenters know the theoretical distribution of fair dice, they are able to estimate the group-level deviations from that distribution.

The study found no evidence of cheating after participants read that an unidentified group of politicians received bribes. But it finds that, in a morally loaded context, when the political identity – ideological spectrum – of the corrupt is disclosed, participants with the opposite political identity try to signal honesty, even if they have to cheat by declaring lower values for that, and participants without a defined political identity – centrists – tend to cheat more. No significant effects were found for participants who share the same political identity as the corrupt. The study also provides evidence that the more participants identify politically with the corrupt group and the more importance they attach to politics, the greater the effects of corruption's salience on their behavior.

The second chapter shows that the fight against political corruption can be an instrument to increase trust and cooperation in society. The hypothesis raised is that the perception of corruption undermines people's social trust. To test this hypothesis, an online experiment was designed in which participants were randomly selected to read a text describing the passing of a law in the Chamber of Deputies through negotiation or through corruption, before taking a reading test. Then, people's social trust was elicited through surveys based on the World Values Survey. The results

[7] Fischbacher and Föllmi-Heusi (2013) is the seminal paper that applies the dice-rolling paradigm.

show that the salience of political corruption can increase people's social distrust and that this effect is mediated by the context in which corruption occurs and the social identity (ideology) of the participants.

Both chapters contain their own introductions and conclusion and can be read independently.

1 Corruption and Dishonesty of Individuals: An Experimental Approach

1.1 Introduction

There is a pervasive perception of corruption in the political environment in developing countries. In recent years, much work has been devoted to understanding the costs of corruption and its effects on economic development. According to a study by the World Bank Institute cited by Sequeira (2015), the global cost of corruption is more than 1 trillion dollars a year and African states lose about 25% of their GDP to corruption. Indeed, there is strong evidence of the deleterious effects of corruption on transaction costs, growth and investment (Shleifer and Vishny 1993, Mauro 1995, Fisman and Svensson 2007, Johnson et al., 2011) and misallocation of talent, technology and capital (Murphy et al., 1991, 1993), undermining innovative activities. In addition to efficiency issues, corruption also has pernicious distributive and regulatory effects: it causes income inequality and poverty (Gupta et al., 2002; Olken, 2006), leads firms to informality (Friedman et al., 2000) and to ignore important regulatory requirements (Bertrand et al., 2007) which has an adverse effect on the supply and quality of essential public services, such as education (Reinikka and Svensson, 2004, 2005; Ferraz et al., 2012) and health care (Baicker and Staiger, 2005; Chaudhury et al., 2006). The consequences of corruption can go even further: in political science, Seligson (2002) presents evidence that exposure to corruption erodes the legitimacy of the political system, putting pressure on the entire institutional and social environment.

This study joins these efforts and aims to understand the effects of perceived corruption on citizens' honesty in a simple and not related-with-politics task. Specifically, it tests experimentally whether individuals who read a text reporting that a bill passed after politicians received a bribe cheat more in a subsequent game than those who read that the same legislation passed after a negotiation process. In addition, it also tests whether the moral load of the passed legislation and the political identity of the participants in relation to that of the corrupt politicians moderate these effects.

Some studies in economics and social psychology have already found effects of a person's dishonesty on the unethical behavior of other individuals. In an

interesting experiment with students, Gino, Ayal and Ariely (2009) show that a person's dishonesty in a task affects the average honesty of other participants in that same task. For the authors, exposure to unethical behavior can change the understanding of social norms related to dishonesty, making people take the dishonest acts of others as a reference for acceptable behavior. Furthermore, in order to maintain a distinct and positive social image, people tend to conform to what they believe to be the norms of the groups to which they belong. Thus, the level of cheating of the participants increases when a cheater is perceived as a member of the group, but decreases when the cheater is seen as someone outside the group. Another source of influence discussed by the authors is what they call the salience of ethicality: moral reminders, like dishonest acts by others, can lead people to conform more rigidly to their own moral values and thus reduce dishonesty.

Another interesting theory about the influence of third party behavior on people's behavior is also related to the violation of social norms: the *broken window theory*. It postulates that the perception of widespread violation of a social norm affects individuals' willingness to conform to that norm (Wilson and Kelling, 1982). Keizer et al. (2008) go a step further and show that exposure to the violation of a certain social norm can lead people to not comply with other different and unrelated norms. They call this phenomenon *cross-norm inhibition effect*. They also demonstrate that this effect occurs even with legally protected rules. Therefore, while the experiments by Gino et al. (2009) show that observing the **dishonesty of others** can affect the honesty of the participants, Keizer et al. (2008) show that people's honesty can be affected by observing the **result of others' dishonesty**.

If violations of the rules of conduct can affect the behavior of other people, it could be argued that they are more evident and harmful when practiced by authorities or more influential people. In addition, bad examples from politicians and top executives can send misleading messages to society about the relationship between compliance with norms and the path to success. Thus, it can be assumed that political corruption, in particular, fuels disrespect for the rules and dishonesty. Some authors have tried to establish this relationship, but the results so far are not conclusive. Mann et al. (2016) study how corruption and cultural values affect individual dishonesty in five different countries. They find an insignificant variation in the dishonesty observed across countries and a limited influence of corruption and cultural variables on the intrinsic honesty of individuals. They conclude that general cultural explanations are not as important as situational factors and established norms to explain cheating. Gachter and Schulz (2016), in turn, carry out an experiment with students from 23 countries and find a positive correlation between society's

intrinsic dishonesty and an index that captures the level of corruption, tax evasion and fraudulent policy. The authors suggest that unfairness and violation of norms can shape ethical values and, therefore, influence individuals' dishonesty, since people compare and justify their behavior according to what is observed in their social environment.[1] And in a survey-based study using the European Values Survey and the World Values Survey, Dong et al. (2012) also find a positive correlation between the perception of corruption and the willingness to engage in corruption.

The secret nature of lying and dishonesty makes it difficult to obtain reliable data on fraud in the field. To deal with this problem, the present study uses a new approach to the study of cheating that emerged in experimental economics and social psychology. This method uses simple, non-invasive experiments that maintain participants' anonymity and privacy. In the most applied technique, the subjects self-report the outcome of a simple task, such as rolling a dice or throwing a coin, performed privately and their gain depends on the reported result. They know that the experimenter is not able to monitor the actual result and the risk of detection is zero. This provides incentives for income-maximizing agents to misreport results that are not associated with higher returns. This design does not allow researchers to detect dishonesty at the individual level – which reduces potential demand effects, social image problems and ethical concerns – but as the experimenters know the theoretical distribution of fair dice or fair coins, they are able to estimate the group-level deviations from that distribution.

The seminal study using experiments with dice (or coins) to capture dishonesty was a working paper released in 2008 by Fischbacher and Föllmi-Heusi, which generated the article published in 2013. Since then, the approach has been growing rapidly and gaining different variations.[2] Important to consolidate this technique in the literature was the emergence of a robust set of studies correlating the results of the experiments with dishonest attitudes and misbehavior in the field and in everyday life. Abeler et al. (2014), found significant differences between the results reported by laboratory experiments and those reported by participants on the phone, which played the same game at home, after receiving a call inviting them to participate. The distribution of outcomes over the phone was very close to the actual distribution of a fair coin. Mann et al. (2016) apply the experiment in five countries and show that students in the laboratory cheat more than the general public in coffee shops,

[1] Houser et al. (2012) show that individuals who claim to have been treated unfairly in a dictator game are more likely to cheat in a subsequent task.

[2] Shalvi et al. (2011a, b), Houser (2012), Cohn et al. (2014), Weisel and Shalvi (2015), Pascual-Ezama et al. (2015), Schurr and Ritov (2016), Gachter and Schulz (2016), Hanna and Wang (2017) and Kajackaite and Gneezy (2017) are some examples.

although both groups cheat. Potters and Stoop (2016) use a variant of the game where participants receive a deck of 20 cards, each card has two colors and one color is associated with higher payoffs than the other. Participants must choose a color in their mind, flip the top card of the deck to see their winnings and write down the chosen color — as in the dice-rolling game, researchers have to rely on statistical analysis to estimate the level of cheating on the task. After the game, the top 25 and 25 worst performers in the lab were paid in excess of 5 euros. E-mail was sent informing the subjects that the payment was made and asking if it was received successfully. They found that individuals with the highest rewards in the game — probably cheaters — were less likely to report overpayment. Kröll and Rustagi (2016) use Bluetooth-enabled die to precisely measure the degree of dishonesty of milkmen in a region in India and to correlate these results with the amount of water added to the milk they sell. They show that the most dishonest milkmen, as measured by the rolling-die game, add significantly more water to the milk. Hanna and Wang (2017) found a positive correlation between the absenteeism of 165 government nurses and dishonesty in the dice-rolling task. They also show that the experiment results predicts preferences for jobs in the government sector and suggest that the public service may be attracting workers more prone to corruption. Dai et al. (2018) found that the dice-rolling paradigm can predict the evasion of fares in public transport, and Cohn and Maréchal (2018) show that students who cheat on the coin flip game tend to behave worse in the classroom. Taken together, these results provide support for the external validity of this approach not only as a measure of dishonesty, but also as a measure of rule violation in general.

This study looks for associations between the salience of political corruption and the honesty of citizens. For this, an online experiment of the dice-rolling paradigm is set up, where before launching the dice the subjects participate in a reading test. The aim is to verify whether those who read a text stating that a bill passed after politicians received a bribe cheats more than those who read that the same bill passed after a political negotiation process. In addition, it is also tested whether the moral load of the bill and the political identity of the participants in relation to that of the corrupt politicians moderate the expected effects.

The paper finds no evidence of cheating after participants read about bribes to an unidentified group of politicians. But it shows that when subjects receive information about the political identity – ideological spectrum – of the corrupt, the identity interacts with the context to significantly influence the honesty of individuals. While participants with the opposite political identity try to signal honesty, even if they have to cheat for that, participants without a defined political identity – centrists

– tend to cheat more than those in the unidentified treatment. No significant effects were found for participants who share the same political identity as the corrupt. The study also provides evidence that the more participants identify politically with the corrupt group and the more importance they attach to politics, the greater the effects of corruption's salience on their behavior. Finally, the context in which corruption occurs is also important. While morally loaded contexts can elicit strong and significant responses from agents exposed to corruption, morally neutral contexts induce weak and often non-significant responses.

This study complements the work of Wilson and Kelling (1982) and Keizer et al. (2008) by providing evidence that political corruption, when not counterbalanced by positive social norms, can spread dishonesty in society. The results also reinforce the findings of Dong et al. (2012) and Gachter and Schulz (2016) that the willingness to engage in corruption and dishonest behavior are correlated with the perceived corruption of peers and other individuals.

By showing that political identity moderates the effects of corruption on the decisions and preferences of individuals, this work contributes to the literature on economics and identity, inaugurated by Akerlof and Kranton (2000), and extended to honesty decisions by Cohn et al. (2014) and Cohn et al. (2015). In addition, it also contributes to a vast literature – Bénabou and Tirole (2003), Mazar, Amir and Ariely (2008), Gino, Ayal and Ariely (2009), Fischbacher and Föllmi-Heusi (2013), Shalvi et al. (2011a), Shalvi et al. (2011b), Lewis et al. (2012), Shalvi et al. (2012) among others – which analyzes how intrinsic motivations, like the desire to be seen and self-perceive as honest, regulate the honesty of individuals. In particular, this study shows that in certain situations, people try to signal honesty even if they have to be dishonest for that, like the nuns of Utikal and Fischbacher (2013).[3]

Finally, two considerations about the experiment. First, the dice-rolling paradigm gained prominence in the study of dishonesty, but there are few experiments with this technique conducted in developing countries. Hanna and Wang (2017) and Kroll and Rustagi (2016), both performed in India, are some of the exceptions. Second, the extra-laboratory experiment developed here combines the dice-rolling paradigm with an online survey in an innovative way. As far as we know, this is the first economic study using the dice paradigm with a Brazilian sample and the first to present an online version of this technique.

[3] Utikal and Fischbacher (2013) find evidence that people can also tell lies that are financially disadvantageous for themselves, as long as they have gains for their self-image or for their social image. In a study with samples of students and nuns, they show that both groups lie, however, in different directions and for different reasons. While nuns lie to avoid looking dishonest, students lie for material gain.

The rest of the chapter is divided as follows: the next section presents the theoretical considerations and the hypotheses to be tested; the third section describes the experimental design and the experimental procedure; section four presents the results and the fifth discusses them; a conclusion closes the chapter.

1.2 Theory and hypotheses

In the first economic studies on dishonesty, scholars like Becker (1968) and Allingham and Sandmo (1972) emphasized the relationship between the perception of the risks involved in cheating and the cost-benefit analysis of staying honest. Since then, advances in the fields of social psychology and behavioral economics have shown that intrinsic motivations, such as aversion to lying[4] and the desire to have a self-concept and a social image as an honest person, also affect individual decisions. Norms and values of honesty are taught or observed in society, and internalized by people as a reference against which to compare and evaluate their own behavior. Deviations from these norms, in general, are perceived as damaging to the image and, therefore, generate disutility, while compliance with the norms generates positive utility.[5]

The growth of this literature has brought with it the documentation of a range of mediators that can make certain behaviors more or less acceptable to the individual, without harming his self-image. A class of mediators provides justifications that make dishonesty acceptable to some extent, allowing cheating to occur without erosion of the cheater's self-concept. Shalvi et al. (2012) suggest that people have an automatic tendency to cheat, which can be overcome when there is enough time to decide and there is no specific justification for acting dishonestly.[6] Other mediators

[4] See Hurkens and Kartik (2009); Gneezy, Rockenbach and Serra-Garcia (2013) and Dhami (2016).

[5] Relevant contributions to this literature can be found in: Levitt (2006), who considers that the internal motivations to do what is morally correct explain why the sale of bagels and donuts in offices, in a take and leave the money regime, collected amounts close to revenue due, given price and quantity sold; Mazar, Amir and Ariely (2008) who show that the opportunities for obtaining material gains through cheating are confronted not only by the risks of external sanctions, but also by the desire to maintain a positive self-concept as an honest person; Fischbacher and Föllmi-Heusi (2013) found that individuals want to make gains by cheating, but try to disguise their lies and avoid levels of dishonesty that could jeopardize their self- and social image; Cohn et al. (2018) show that individuals cheat more when interacting with machines than when interacting with other human beings. When interacting with other beings, people avoid claiming improper advantages that are unlikely, reinforcing the importance of maintaining the social image in the regulation of honesty. Other interesting works that highlight the role of image maintenance in people's honesty are: Barkan et al. (2012), Hao and Houser (2016), Hilbig and Hessler (2013), Jiang (2013), Ploner and Regner (2013) and Shalvi et al. (2011a).

[6] Other interesting works that highlight the role of justification as a mediator of dishonesty are

work as moral licensing, compensating for possible damage to the image in the present, remembering good deeds done in the past or that are intended to be done in the future. Mazar and Zhong (2010) provide an interesting example and show that, although exposure to green products can induce prosocial behavior, people are more likely to cheat and steal after buying green products than after buying conventional products.[7]

A particularly important mediator for the present study is the *salience of ethicality*. Mazar, Amir and Ariely (2008) found that drawing people's attention to moral standards through moral reminders – like the Ten Commandments – reduces dishonesty in a subsequent task. Pruckner and Sausgruber (2013) compare the payment of newspapers sold on the street through a trust system, in which people take a copy and leave the suggested amount in a padlocked cashbox, in three different treatments: in the first treatment there was a cashbox with a moral message; in the second, a message remembering that it was against the law to take a newspaper and not pay; and in the control group there were no messages next to the cashbox. They found that moral messages significantly increase the amount that people pay compared to the other two treatments. In a laboratory experiment, Gino, Ayal and Ariely (2009) show that honesty in solving math tests increases after participants observe another person cheating. They suggest that watching cheats brings ethics to people's minds. And the salience of ethicality, whether it is the product of violating rules by third parties, reading moral messages or other mechanisms, leads people to pay more attention to social norms and their own moral values before making a decision. As a result of this awareness, people avoid behaviors that could compromise their self-image and social image, reducing dishonesty.

What makes this literature more complicated and more interesting is that observing noncompliance with norms does not necessarily lead people to pay attention to their own morals and to act in accordance with their prescriptions. Various studies show that other people's dishonest behavior can have deleterious effects on individuals' honesty. In the early 1980s, Wilson and Kelling (1982) postulated the broken window theory, suggesting that the observation of frequent violations of social norms increases the likelihood that other people will also break those rules.

According to Cialdini, Reno and Kallgren (1990), social norms substantially influence the behavior of individuals; but to better understand their impacts it is

Bassarak et al. (2017), Erat (2013), Jacobsen and Piovesan (2016), Lewis et al. (2012), Pittarello et al. (2015), Shalvi et al. (2011b), Shalvi et al. (2015) and Wiltermuth (2011).

[7] Other works works that highlight the role of moral licensing as a mediator of dishonesty are Cojoc and Stoian (2014), Clot et al. (2014), Jordan et al. (2011) and Ploner and Regner (2013).

necessary to separate them into two types: *descriptive norms*, which specify what most people do in a particular situation, and *injunctive norms*, which specify the behaviors that most people approve or disapprove of in a given situation. Descriptive norms offer an advantage in information processing and a shortcut to the decision when choosing how to behave. The more conspicuous a descriptive norm, the greater its influence on the behavior of individuals. The injunctive norms refer to the beliefs or rules of what constitutes a morally approved or disapproved conduct. Morally disapproved behavior is subject to social sanctions. The social context determines which norms are most salient, or which norms people are most focused on, and therefore have the greatest influence on people's behavior.[8]

Keizer et al. (2008) documented, based on a series of six field experiments, an extension of the broken window theory that they called the *cross-norm inhibition effect*: watching other people violate a social norm or legitimate rule increases the likelihood that the observer violates different norms and rules, even unrelated norms. This is because a specific injunctive norm that prescribes *acting properly* is weakened when people notice that others apparently do not pursue this goal.[9]

Gino et al. (2009) invoke *social-identity theory* (Tajfel and Turner, 1979) to explain another interesting result of their experiment. According to this theory, individuals tend to categorize themselves and others in social groups such as religion, sex, political spectrum, football team, hair or skin color, profession, and many other categories used to define a person. Once categorized, individuals begin to identify themselves by these categories, to recognize themselves as part of these social groups and to distinguish people who belong and do not belong to these social groups as members of the group and members outside the group. Finally, the different groups are compared to each other. The identity associated with each group becomes part of the social identity of its members. These members, in turn, in addition to gaining utility when they perceive gains in their personal image, also gain utility when the groups to which they belong are compared positively in relation to the others.

The behavior of group members also becomes a guide that their members use

[8] Gino, Ayal and Ariely (2009) summarizes well the interesting experiment found in Cialdini et al. (1990): "[They] *had a confederate litter in the environment in front of some participants or simply walk through the environment in front of others. Participants who saw the confederate litter subsequently littered more than those who did not see the confederate litter if the environment was clean, but this effect was reversed when the environment was dirty*".

[9] In one of the six experiments, the researchers found that: "*the effect was not limited to social norms but also applied to police ordinances and even to legitimate requests established by private companies. An envelope hanging out of a mailbox with a 5 euros note attached was stolen twice as often when the area around the mailbox was covered with graffiti than when the area was clean. Remarkably, general disorder seems to induce a violation of the no-stealing norm, which is not only widely accepted but even legally protected*" (Keizer et al.; 2008).

to signal and affirm their social identity. Thus, in contexts where political identity is important, someone who identifies himself politically as rightist or leftist tends to look to their respective peers as a reference for socially accepted norms and values and tend to conform to the group's behavior.

In the experiment, Gino et al. (2009) include among the participants a confederate instructed to deliberately cheat in front of others. The study shows that when the confederate cheater is a member of the group – he wears a jacket from the same university – the tendency of participants to cheat increases. When the cheater is an out-group – he wears a jacket from the rival university – the participants' tendency to cheat decreases. They argue that observing the lack of ethics of others may change the understanding of the social norms applied to the situation. When the cheater is identified as a member of the group, dishonest behavior can be interpreted as a descriptive norm for socially accepted behavior. In that case, people tend to reproduce dishonest behavior. And when the cheater is identified as an out-group member, injunctive rules can be highlighted and the behavior observed tends to be condemned and not replicated by others. In this case, people want to differentiate themselves from the *bad apple* to maintain a distinct and positive social identity.[10]

A natural extension of these studies is to test whether a specific and widespread form of cheating, political corruption, can affect the propensity of ordinary citizens to cheat on a non-political task. When the corrupt are not identified, it is expected that the perception of corruption can either increase the propensity to dishonesty, due to the cross-norm inhibition effect, or decrease it, due to the salience of ethicality. When the corrupt are identified by their political identity, participants who share the same identity and those who share the opposite political identity are expected to be affected differently, as the theory of social identity postulates.

Thus, from these premises, the following hypotheses are derived:

Hypothesis – 1*: when subjects pay attention to the corruption of politicians, they tend to be* ***more dishonest*** *in a subsequent and unrelated task.*

The mechanism behind this hypothesis is the cross-norm inhibition effect, that postulates that observing the violation of a certain social norm or legitimate rule increases the likelihood of the observer violating other norms or rules, since a

[10] Gino, Gu and Zhong (2009) try to expand the understanding of when people compensate or replicate the dishonest behavior of others. They find that in the presence of a non-member of the group, people tend to compensate more and therefore to be more honest when a member of the group cheats than when a out-group is dishonest. However, this compensatory behavior occurs only in the presence of non-members. They suggest that people feel guilty about a member's behavior and, in the presence of out-groups, tend to make up for the mistakes of their peers.

specific **injunctive norm** that prescribes **to act appropriately** is weakened when people observe that others apparently do not pursue that goal.

***Alternative hypothesis – 1**: when subjects pay attention to the corruption of politicians, they tend to be **more honest** in a subsequent and unrelated task.*

The mechanism behind these hypotheses is the saliency of ethicality, that suggests that observing someone behaving dishonestly, such as reading about a new corruption scheme, causes the observer to pay attention to their own moral standards and, consequently, reduce the tendency to practice dishonest acts.

Reading about political corruption can lead participants to pay attention to their moral standards, but it can also undermine the purpose and willingness to act appropriately, as people in prominent positions in society break established rules and set negative examples of civility. Therefore, we believe that both effects can affect the treatments in our study. The first effect would decrease cheating among participants, while the second would increase it. Thus, a priori, the resulting effect could be null or point in any direction, depending on the most salient norms for most participants at the moment.

***Hypothesis – 2**: when subjects and politicians share the **same political identity**, and subjects pay attention to the corruption of these political agents, they tend to be **more dishonest** in a subsequent and unrelated task.*

***Hypothesis – 2.1**: the more participants identify with the political identity of the corrupt, the greater the effect of the salience of corruption on their behavior.*

In this hypothesis, we are testing whether the results found in Gino, Ayal and Ariely (2009), that participants tend to be more dishonest when performing a task when they observe a in-group member dishonestly solving the same task, would remain if the dishonesty observed is political corruption, the task to be performed by the subjects is online and unrelated to politics and the groups in question are the political identities – ideological spectrum – of the corrupt and the participants.

***Hypothesis – 3**: when subjects and politicians have the **opposite political identity**, and subjects pay attention to the corruption of these political agents, they tend to be **more honest** in a subsequent and unrelated task.*

***Hypothesis – 3.1**: the more the participants identify with the opposite political identity, the greater the effect of the salience of corruption on their behavior.*

In this case, individuals from the opposite group want to differentiate themselves from the corrupt group to maintain a distinct and positive social identity.

Hypothesis − 4*: when subjects do not identify themselves with any political identity and pay attention to the corruption of an identified political group, they tend to be* ***more dishonest*** *in a subsequent and unrelated task.*

Alternative hypothesis − 4*: when subjects do not identify themselves with any political identity and pay attention to the corruption of an identified political group, they tend to be* ***more honest*** *in a subsequent and unrelated task.*

As in hypothesis 1, when subjects observe political corruption, they can interpret this as a weakening of the objective of acting appropriately. Thus, due to the cross-norm inhibition effect, they would tend to fail to comply with other unrelated norms. Alternatively, corruption can also salient the ethicality and lead the observer to pay attention to his own moral standards and, consequently, reduce the tendency to practice dishonest acts.

Finally, the context of the choice is important, as it can increase or decrease the internal costs of dishonesty. Hence:

Hypothesis − 5*: the context in which the observed corruption occurs mediates the above effects. While morally loaded contexts can induce strong responses from agents exposed to corruption, morally neutral contexts would induce weak or no responses.*

1.3 Experimental design and experiment procedure

To test the hypotheses described above, an experiment was set up in the form of an online questionnaire. Dishonest behavior was elicited through a non-invasive procedure that maintains the participants' anonymity and privacy. In this technique, the subjects report the result of throwing a dice, performed in private, and their pay off depends on the reported outcome. They know that the experimenter is not able to monitor the actual outcome of the dice roll, which provides incentives for *revenue maximizers* misreport results that are not associated with higher returns. This procedure does not allow the researcher to detect dishonesty at the individual level, which reduces potential demand effects, social image problems and ethical concerns, but it allows to statistically infer the dishonesty of each group, comparing the distribution of results between the different treatments.

The survey begins with basic demographic questions, such as gender, age group and mother's education, and continues with two questions designed to elicit participants' interest in politics and their political-ideological orientation. The first question is whether the participant has an interest in politics, and can be answered

as: *I am very interested*; *I have some interest*; *I have little interest* and *I have no interest.* The second asks the participant to define himself politically, and can be answered from *very leftist* to *very rightist*; passing by *leftist*, a *little leftist*, *neither leftist nor rightist* (*centrist*), a *little rightist* and *rightist.* After these questions, participants answer two simple logic tests and a reading test. The reading test is designed to salient the different treatments and experimental conditions in the mind of the participants. The logic test aims to divert participants' attention from the real purpose of the research and not to let the reading test "get lost" between questions about politics and trust.[11]

In the reading test, the participants are asked to read a short text about the process of passing a given legislation and then answer a true or false question. The content of the texts was marginally varied and randomly distributed among the participants, in order to constitute the six analysis groups of the study: *negotiation*, *unidentified corruption* and *identified corruption* treatments; each of the three treatments presented in a *morally neutral* or *morally loaded* context.[12] In the negotiation treatment, the baseline of the study, the process described for the approval of the law is a negotiation. In the unidentified corruption treatment, the text reported that the law was passed after unidentified politicians received bribes. And in the identified corruption treatment, the group of corrupt politicians was identified by an ideological orientation. The texts of the three treatments are presented below with the differences between them in bold:[13]

- According to a text that circulates online, after **intense negotiations between** deputies in the National Congress, a proposal that allows the installation of duty-free shops in cities located on the border with other countries was approved by the Chamber of Deputies. The proposal now goes to the Federal Senate.

- According to a text that circulates online, after **the payment of bribes to the** deputies of the National Congress, a proposal that allows the installation of duty-free shops in cities located on the border with other countries was approved by the Chamber of Deputies. The proposal now goes to the Federal Senate.

- According to a text that circulates online, after **the payment of bribes to the** deputies **of the main left parties** of the National Congress, a proposal that allows the installation of duty-free

[11] Between the reading test and the dice game, participants answered three questions about trust, used in the next chapter.

[12] The platform used (*surveymonkey*) allows the treatment to be randomized according to parameters established by the researcher.

[13] The following texts are an English translation by the author. The original was applied in Brazilian Portuguese.

shops in cities located on the border with other countries was approved in the Chamber of Deputies. The proposal now goes to the Federal Senate.

In morally loaded conditions, the situations described in the reading test refer to a proposal for faster release of resources for the acquisition of equipment for the treatment of patients with covid-19, while in morally neutral conditions they refer to the installation of duty-free shops in cities located on the country's borders. The texts of the two conditions, for the negotiation treatment, are presented below with the differences between them in bold:

- According to a text that circulates online, after intense negotiations between deputies in the National Congress, a proposal that allows the **installation of duty-free shops in cities located on the border with other countries** was approved by the Chamber of Deputies. The proposal now goes to the Federal Senate.
- According to a text that circulates online, after intense negotiation between deputies in the National Congress, a proposal that allows the **faster acquisition of medical and hospital equipment to treat patients with covid-19** was approved in the Chamber of Deputies. The proposal now goes to the Federal Senate.

The idea behind this configuration is to test whether there is a statistical difference in the proportion of people who claim to have obtained the highest numbers in the dice game between the different conditions and treatment groups. Table 1 below outlines these treatments and conditions.

		Treatment				
		Control (C)	Unidentified corrupt (UC)	Identified corrupt (IC)		
				Same ident. (SI)	Opposite ident. (OI)	Nonidentity (NO)
Condition	Morally loaded (ML)	C under ML	UC under ML	SI under ML	OI under ML	NO under ML
	Morally neutral (MN)	C under MN	UC under MN	SI under MN	OI under MN	SI under MN

Tabela 1 – Treatment and conditions - Dishonesty

After the tests, the subjects were informed that, in recognition of the contribution of all the participants, 10 gift cards from a famous e-commerce in Brazil, worth 50 Brazilian reais each (just under 10 dollars), would be drawn. It was explained that their e-mails (the only identification they would need to provide) would be listed in an Excel spreadsheet and then ten of them selected using the *random function*. Each participant's e-mail could be placed up to six times in the spreadsheet, increasing

the chances of winning. They were instructed to take a 6-sided dice, roll it and report the result. The reported outcome would be the number of times the email would appear in the spreadsheet. If there was no dice nearby, they could use one of the numerous virtual dice available on the Internet, such as *Google's virtual dice* or *PiliApp's virtual dice*, with links to access them. It was also informed that the winners would receive the prize through the email provided.

It is worth mentioning that in this arrangement, in which the participants are not answering the questionnaire in front of the researcher and were instructed to use whatever dice they had in hand, it is not possible for the researcher to monitor neither if the reported result was actually rolled, nor if the participant rolled a dice before reporting the result. The participant can cheat by declaring values higher than the one actually obtained, or simply claim the number six without rolling the dice, without fear of being caught. Although it is not possible to observe cheating individually, it is possible to compare the distribution of the results reported by each treatment group.

The survey was applied to Brazilian subjects (in Brazilian Portuguese), answered online, through the *monkeysurvey.com* website, with the express voluntary participation of 957 people over 18 years old. The link was sent to the subjects through *WhatsApp Messenger*, with the request to pass it on to others interested in participating. The complete research instrument, with the four texts of the reading comprehension test, can be found in Appendix A.

Online experiments are useful tools for collecting data with internal validity. Anderhub et al. (2001) show similar decision patterns in experiments conducted online and in the laboratory. They suggest that, in general, decisions made online have greater variance and occur in less time. These drawbacks, however, can be mitigated by increasing the sample size. Hergueux and Jacquemet (2015) use the same controls, interface, subject pools and monetary stakes in a public good game, a dictator game, ultimatum bargaining game and a trust game, along with a risk aversion elicitation, and conclude that online experiments largely reproduce the results of the laboratory. Arechar et al. (2018) also found similarities in the results for public good experiments.

As this is an experiment that uses the dice-rolling paradigm in conjunction with online surveys in an innovative way, it deserves further consideration. According to the classification proposed by Charness et al. (2013) this is an extra-laboratory experiments. The designation was created to describe experiments that use the same rigor and control as laboratories, but that are applied in different locations and / or

with different or more diverse public, and that clearly do not meet the prerequisites to be classified as field experiments. As a general rule, these experiments can be carried out continuously for longer than is normally possible in the laboratory and also include a wider variety of sample selection processes, including in this classification the increasingly popular online experiments.[14]

Online experiments allow the use of a more representative sample than the typical sample of students and a significant expansion of its size without increasing costs. In addition, it does not require the use of show-up fees and has a much lower cost of inconvenience for participants. On the other hand, there are greater sources of distractions and a greater probability of answers given quickly, with less accuracy, than in the laboratory; greater difficulty in monitoring the identity of the participants; and can occur selective dropout in a way that the researcher cannot understand.[15]

The participant's evasion is pointed as the main source of concern by Zhou and Fishbach (2016) and Arechar et al. (2018). If the dropout is in any way associated with the experiment, it can bias the results. However, if it occurs for reasons exogenous to the experiment, it does not cause major concerns and, like the other problems described, can be mitigated by expanding the sample.

The present experiment was started by 1056 participants and completed by 957 of them, a response rate of 91%.[16] 22 dropouts occurred in the reading test, the treatments of the experiment, and another 25 in the questions of logic. Of those who reached the end of the questionnaire, 40 failed to report the result of the dice game. Binomial tests found no association between these dropouts and experimental treatments, nor between dropouts and the declared political identity, age group or gender of the participants.

It is reasonable to expect dropouts in tests associated with intelligence, but why not report the result of the dice? To prevent participants motivated purely by financial incentives from answering the questions that preceded the dice game inaccurately, they were only informed of the coupon lottery at the end of the experiment. It was not made explicit that they were part of the experiment, but presented as a way of thanking people for their voluntary participation. Thus, subjects motivated only to contribute to the research, may not have been interested in participating in the game. At that point, they had already read the thank-you

[14] According to the proponents, this classification allows researchers to compare results of laboratory studies with extra-laboratories and to map possible sources of divergences that may be the object of economic interest.

[15] Hergueux and Jacquemet (2015) and Charness et al. (2013) for a more detailed discussion.

[16] In Arechar et al. (2018) the evasion rate was 18%.

message and thought they had completed all the relevant stages of the questionnaire.[17]

The main strategy used in this study to minimize the problems arising from haste and lack of attention, and also to decrease dropout, was the elaboration of a simple, short and direct questionnaire. The estimated time to complete the experiment, according to *surveymonkey.com*, was 4 minutes. Only 10.7% of the sample finished below this time and 2.1% of the participants responded in less than 3 minutes. The typical time spent on the experiment was 6 minutes and 40 seconds. It can be concluded that most of the participants spent the necessary time to read and answer the questions carefully.[18]

The sample contains 561 women and 436 men. 79 participants from 18 to 24 years old, 226 from 25 to 34, 418 from 35 to 44, 100 from 45 to 54, 107 from 54 to 65 years old and 27 with more than 65 years old. Among the demographic questions was the mother's education, but this information was not used in the analysis because she was suspicious of the measurement error. More than 60% declared that the mother has a college degree and more than 30% that she has a postgraduate degree. As these numbers are quite high by Brazilian standards, many participants may have declared their own schooling. This problem was not noticed in the numerous pilots carried out with students. What can be inferred, with or without measurement error, is that the sample reached has a higher level of education than the Brazilian average. Both the age group and the gender did not prove to be important covariates during the analysis of this study.

The experiment was open to participation from July 8 to August 5, 2020, during the height of the first wave of COVID-19 in Brazil. The graph in Appendix B shows that the first 7 days received 66% of the total participation, and in 15 days the participation reached 96% of the final sample. The past few days have received few entries.

1.4 Results

The idea is to verify if there is a statistical difference in the distribution of the results reported in the dice game between the (1) *negotiation* and the (2) *unidentified corrupt* treatment; and between the (3) *identified corrupt* treatment, given the political identity informed by the participant in relation the identity of

[17] See Eckel and Grossman (2000) for a comparison of values sent in a dictator games by participants from a sample selected by financial incentives from students selected in the classroom.

[18] The average response time was similar between the different ideological groups.

the corrupt in the reading test, and the (2) *unidentified corrupt* treatment; in two different conditions. In *morally loaded* conditions the situations described in the reading test refer to a proposal to purchase equipment to treat patients with covid-19, while in *morally neutral* conditions they refer to the installation of duty-free shops in cities located on the country's borders.

For simplicity, the sample is initially analyzed with the results grouped into *low outcomes* (1, 2 and 3) and *high outcomes* (4, 5 and 6), and then we proceed to the analysis of the disaggregated sample (1, 2, 3, 4, 5 and 6).

1.4.1 Aggregated results

Table 2 summarizes the results of this section for controls and treatments, under morally loaded and morally neutral conditions.[19] The negotiation groups, our baselines, were compared with an honest six-sided die, with a probability of 1/6 for each of the possible results (or 1/2 for the high and low aggregate values); the unidentified corrupt treatments were analyzed in relation to the negotiation group, as we want to verify the effect of the salience of corruption on the honesty of the participants; and the identified corrupt treatments were analyzed in relation to the unidentified corrupt treatments, since we intend to verify the incremental effect of the identity of the corrupt and the participants on the participants' behavior. As in Fischbacher and Föllmi-Heusi (2013), non-parametric binomial tests were used to analyze the effect of treatments on each result and Fischer's Exact test to verify whether the analysis and reference groups have the same statistical distribution. The Kolmogorov-Smirnov test was used to verify that the distributions of the control (negotiation) groups follow a uniform distribution, as expected from honest dice.

The graphs, comments and discussions of the main results of the table will be presented throughout the section.

[19] Through this section, the values reported in graphs and tables accompanied by the symbols (+), (++) or (+++) showed an increase in the percentage reported in relation to the reference group in a one-sided binomial test, for a significance level of 10%, 5% and 1%, respectively. The values accompanied by the symbols (*), (**) or (***) showed a decrease in the percentage reported in relation to the reference group, for the same significance levels.

			Morally neutral				*Morally loaded*	
Treatment	*n*	*F.E.*	*Low (%)*	*High (%)*	*n*	*F.E.*	*Low (%)*	*High (%)*
Control	141		49.6	50.4	150		50.0	50.0
Unidentified corrupt	134	1.000	49.3	50.7	122	0.716	47.5	52.5
Ident. / same identity	93	0.788	51.6	48.4	73	0.375	54.8	45.2
Ident. / opposite identity	60	0.534	43.3	56.7	56	0.052	64.3+++	35.7***
Ident. / nonidentity	60	0.276	40.0*	60.0+	68	0.127	35.3**	64.7++
Same identity strong	50	0.869	52.0	48.0	37	0.260	59.5+	40.5*
Opposite identity strong	30	0.421	40.0	60.0	37	0.143	64.3+	35.7*
Interest in politics / same identity	84	1.000	50.0	50.0	66	0.222	57.6+	42.4*
Interest in politics / opposite identity	47	0.615	44.7	55.3	50	0.030	66.0+++	34.0***
Interest in politics / nonidentity	41	0.475	41.5	58.5	46	0.492	41.3	58.7

Share of subjects (in percent) who reported lower or higher payoff; one-sided binomial tests that it is smaller (larger) that reference group. *(+) = 10%-level, ** (++) = 5%-level, *** (+++) = 1%-level

Tabela 2 – Aggregate - Dishonesty

Effects of Negotiation and Unidentified Corruption on Honesty

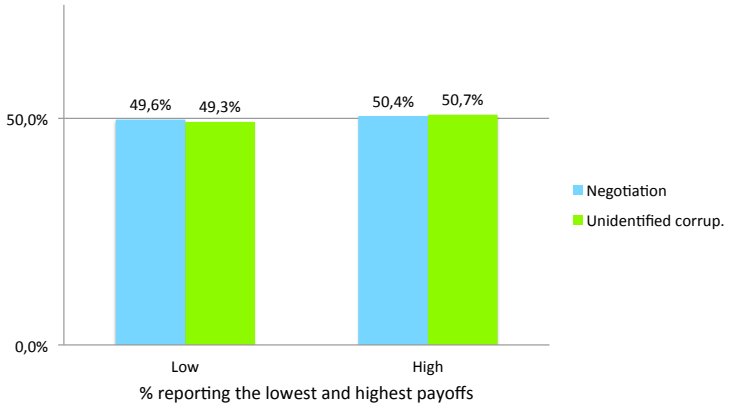


Figura 1 – Negot. x Unidentified corruption - Morally neutral

The blue bars in the graphs 1 and 2 show that the negotiation groups do not present results different from those expected from a fair die under any conditions – a Kolmogorov-Smirnov test does not reject the hypothesis that the results of the control groups show a uniform distribution with a significance of 99%. In a game like this, a pure *homo economicus* must always declare the highest values, as the benefit is positive, although it may be small, and there is no risk of being caught or punished for cheating. Therefore, it cannot be concluded that the experiment participants behave dishonestly, as postulated by traditional theory.

The large proportion of conformists in the baseline group (the negotiation treatment) may be due to the low value of the external incentives in relation to the

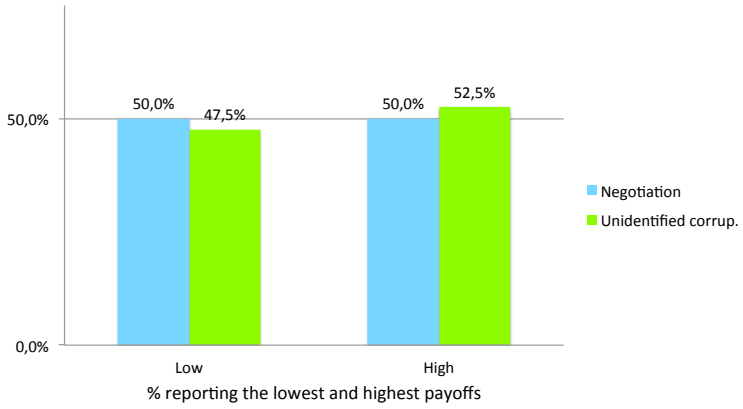


Figura 2 – Negot. x Unidentified corruption - Morally loaded

internal, as the benefits perceived by maintaining an honest self-image. Although there are no external sanctions for those who falsely declare a higher value, studies in social psychology and behavioral economics show that people have internal incentives to play fair and conform to the rules.[20] Previous studies using the dice-rolling paradigm have presented outcomes closer to those expected by traditional economic theory,[21] which leads us to conclude that our external incentive, the voucher lottery, must have had a very low expected value for the participants.

The cross-norm inhibition effect shows that observing the violation of a certain social norm or legitimate rule weakens the objective of acting appropriately and increases the probability of the observer to violate other norms or rules. On the other hand, the saliency of ethicality suggest that when observing someone behaving dishonestly (or reading about a new corruption scheme), the saliency of that act increases, causing the observer to pay attention to honesty and their own moral standards and consequently, reducing the tendency to practice dishonest acts.

Hypothesis 1 and Alternative Hypothesis 1 recognize that both effects can affect the unidentified corrupt treatment. The first effect would increase cheating among participants, while the second would decrease dishonesty. Thus, a priori, the resulting effect could be null or point in any direction, depending on the context and the most salient norm for most participants at the moment.

In the experiment, reading about unidentified politicians receiving bribes to pass legislation presents a result very close to that of the negotiation group – and fair dice – both in a morally neutral context (low: 49.3; high: 50.7) and in a

[20] See Bénabou and Tirole (2003), Gino et al. (2009), Shalvi et al. (2011a), Shalvi et al. (2011b), Lewis et al. (2012), Shalvi et al. (2012) and Fischbacher and Föllmi-Heusi (2013).

[21] See Shalvi et al. (2011a) and Fischbacher and Föllmi-Heusi (2013).

morally loaded context (low: 47.5; high: 52.5) – the green bars in the graphs 1 and 2. Apparently, at least for the level of incentive used, the salience of corruption in politics does not change the behavior of participants in a different activity, supporting neither hypothesis 1 nor alternative hypothesis 1. It is also not possible to rule out that both effects have acted on the behavior of the participants and canceled each other.

This is not a surprising result, given, again, the low value of incentives for participants to cheat in this study. New studies, in different contexts and with more substantial incentives, are welcome and can enrich the understanding of the influence of politicians' dishonesty on the behavior of individuals.

Effects of Identified Corruption and Unidentified Corruption on Honesty

What happens when the participants' ideological identity is controlled and the corrupt are identified by that same political identity?

In the social-identity theory, people tend to conform to the social norms of the groups they identify with and differentiate themselves from out-group members. In addition, the greater the identification with a particular group, the greater the desire to conform to the behavior of its members and to differentiate itself from the behavior of non-members. Based on these theories, Hypotheses 2 and 3 state that corruption can influence the behavior of each person differently, depending on political identities. If a participant has the same political identity as the corrupt group described in the reading test, dishonesty can become a model, a provider of descriptive norms that prioritize material gains and conformity. If the participant has the opposite political identity, corruption tends to highlight the norms of honesty and the search for differentiation. Therefore, the incidence of corruption is expected to increase the dishonesty of in-group members and to decrease that of out-group.

In the experiment, this should translate into an increase in the proportion of higher numbers declared in the dice-rolling game for participants with the *same identity* and a decrease in the proportion of higher numbers declared for participants with the *opposite identity*, in relation to unidentified corrupt treatment – the reference (control) group for this test. But as cheating has not been identified in the unidentified corrupt treatment, there is no level of dishonesty to be reduced, and therefore, participants of opposite identity are expected to claim the same results as those in the unidentified corruption treatment.

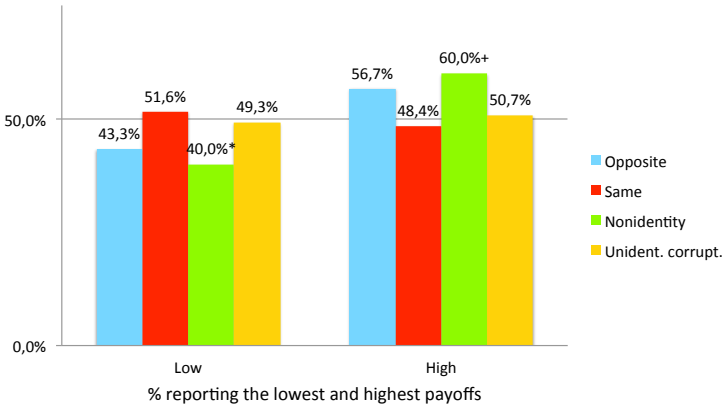


Figura 3 – Identity - Morally neutral

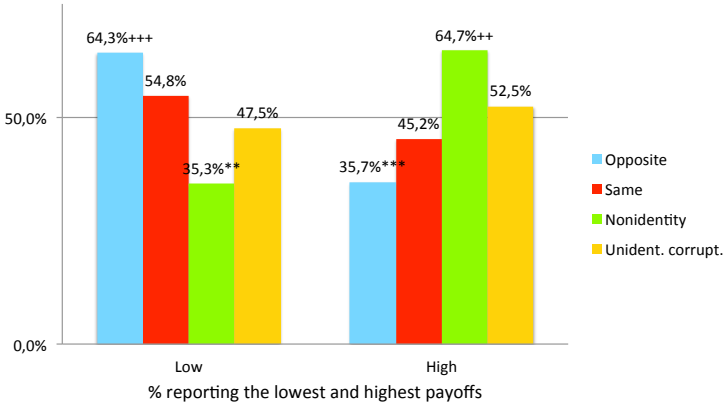


Figura 4 – Identity - Morally loaded

In this study, however, under morally neutral conditions, the effects are contrary to expectations for opposite identity (low: 43.3; high: 56.7) and almost imperceptible for same identity (low: 51.6 ; high: 48.4), although statistically insignificant for both (the blue and red bars on graph 3).

More interesting results appear in morally loaded conditions, graph 4. Participants who declare the same identity as the corrupt claim a higher proportion of lower values, but still statistically insignificant (low: 54.8 ; high: 45.2). For participants who declare the opposite identity, however, there was a very significant increase in the proportion of lower scores (low: 64.3+++ ; high: 35.7***). As the control group claims a result with a distribution equal to that expected from a fair die, it can be concluded that a significant portion of the participants tends to declare a value lower than that effectively achieved in the dice game.

Paradoxically, they falsely assume a material disadvantage to appear more honest. This is a stronger result than that found in Gino et al. (2009), as it reveals people unduly harming themselves to differentiate their social image from that of the corrupt group, and similar to Utikal and Fischbacher (2013) who find evidence that nuns tell lies that are financially disadvantageous for them to avoid looking dishonest. In Gino et al. (2009), students lose the opportunity to dishonestly earn more money than they deserved. Here, participants deliberately claim to deserve less lottery tickets than they should. The salience of corruption led the participants of the out-group not only to seek differentiation from the corrupt, but also to signal differentiation and compliance with the norms of honesty, even if they have to lie to do so. It would be an interesting extension for the present study to see if this signaling continues in experiments with greater internal and external incentives.

It is important to note that this effect was found only in morally loaded contexts, bringing some support to Hypothesis 5. It is likely that in a context where corruption is seen as less harmful, the image gain related to differentiation is lower, decreasing the internal incentive to signal honesty. Therefore, the search for differentiation would depend on the severity of the "sin".

Nonidentity

Hypothesis 4 and Alternative Hypothesis 4 state that nonidentity participants will not be affected by the norms of social identity that drive the rival groups, but their behavior may still be affected by the cross-norm inhibition effect or by the salience of ethicality. Thus, if on the one hand they are expected to declare higher values due to the cost/benefit analysis and the bad example resulting from the behavior of politicians, on the other hand lower values are expected due to the injunction to act properly.

This experiment found a significant increase in the proportion of higher values claimed for the nonidentity group compared to unidentified corrupt treatment both under the morally neutral condition (low: 40.0*; high: 0.60+) and under the morally loaded condition (low: 35.3**; high: 64.70++), supporting Hypothesis 4 and rejecting Alternative Hypothesis 4 (the green bars on graphs 3 and 4). The absence of social image concerns leads the nonidentity group to behave more like a *homo economicus* and the goal to act appropriately is eclipsed by demonstrative norms of dishonesty.

Hypothesis 4 and alternative hypothesis 4 reflect hypothesis 1 and alternative hypothesis 1, respectively. Likewise, the results of the unidentified corrupt treatment and the nonidentity group of the identified treatment were expected to show similar

results – in the first, the corrupt group is not identified and, in the second, the participant does not belong to any group. It is curious, however, that very different results were found for the two treatments. The identification of the dishonest agent has made cheating behavior more salient and has weakened the objective of acting appropriately for people not moved by social identity. It seems that corruption requires an identified agent to materialize as a moral flaw that influences the norms of behavior.

Stronger identities and Interest in politics

Two strategies were used to test hypotheses 2.1 and 3.1: the first is a stronger version of the identified treatment, excluding from the sample those who claim to have little identification with their respective political identities; the second considers only participants who declare interest in politics. The premise is that political identity is a more important part of social identity for subjects more interested in politics.

The stronger version of the identified treatment shows similar results for the opposite group in both conditions, but with less statistical significance – probably due to the smaller sample size. For the group with the same identity, no changes were found under a morally neutral condition, only the reduction in statistical significance. Under a morally loaded condition, a significant increase was found in the proportion of smaller numbers claimed by participants (low: 59.5+ ; high: 40.5*). Thus, not much support was found for hypotheses 2.1 and 3.1 in this configuration.

When considering only the subjects who declare interest in politics, under morally loaded conditions, there was an increase in the claim for smaller numbers and an increase in the level of significance for both the same identity (low: 57,6+ ; high: 42.4*) and opposite identity (low: 66.0+++ ; high: 44.0***) group, with the same identity group becoming significant at 90%. No significant changes were found, however, under the morally neutral condition. The results indicate that the more a person cares about politics, the stronger his desire to differentiate himself from the corrupt on morally relevant issues.[22] Thus, in this configuration more support was found for hypotheses 2.1 and 3.1, but only in the morally loaded condition.

Interestingly, the effect for the nonidentity group loses relevance and statistical significance under the morally neutral (low: 41.5; high: 58.5) and morally loaded (low: 41.3; high: 58.7) condition. The effect of political corruption of the nonidentity group appears to affect only people who care about politics. For those not interested, the

[22] An alternative explanation would be that people more interested in politics are more sensitive to corruption.

nonidentity group in the identified treatment behaves like those in the unidentified corrupt treatment. Thus, complementing the previous conclusion, it seems that corruption requires, in addition to an identified agent, an interested observer to materialize as a moral flaw.

1.4.2 Disaggregated results

Tables 3 and 4 summarize the results disaggregated under morally neutral and morally loaded conditions, respectively.

			Morally neutral					
Treatment	*n*	*F.E.*	*1*	*2*	*3*	*4*	*5*	*6*
Control	141		19.1	17.0	13.5	21.3+	12.8	16.3
Unidentified corrupt	134	0.654	14.2*	19.4	15.7	24.6	14.9	11.2*
Ident. / same identity	93	0.594	15.1	14.0	22.6+	18.3*	17.2	12.9
Ident. / opposite identity	60	0.178	15.0	16.7	11.7	16.7*	13.3	26.7+++
Ident. / nonidentity	60	0.705	13.3	16.7	10.0	23.3	18.3	18.3+
Same identity Strong	50	0.869	14.0	18.0	20.0	22.0	10.0	16.0
Opposite identity Strong	30	0.726	10.0	20.0	10.0	20.0	20.0	20.0
Interest in politics / same identity	84	0.700	14.3	14.3	21.4+	19.0	19.0	11.9
Interest in politics / opposite identity	47	0.182	14.9	19.1	10.6	19.1	8.5	27.7+++
Interest in politics / nonidentity	41	0.461	14.6	17.1	9.8	19.5	14.6	24.4++

Share of subjects (in percent) who reported lower or higher payoff; one-sided binomial tests that it is smaller (larger) that reference group. *(+) = 10%-level, ** (++) = 5%-level, *** (+++) = 1%-level

Tabela 3 – Disaggregated - Dishonesty - Morally neutral

			Morally loaded					
Treatment	*n*	*F.E.*	*1*	*2*	*3*	*4*	*5*	*6*
Control	150		18.7	13.3	18.0	18.7	18.0	13.3
Unidentified corrupt	122	0.445	15.6	19.7++	12.3*	15.6	18.9	18.0+
Ident. / same identity	73	0.751	13.7	20.5	20.5++	15.1	15.1	15.1
Ident. / opposite identity	56	0.012	25.0++	16.1	23.2++	17.9	16.1	1.8***
Ident. / nonidentity	68	0.519	10.3	11.8*	13.2	23.5+	20.6	20.6
Same identity Strong	37	0.353	10.8	21.6	27.0++	8.1	13.5	18.9
Opposite identity Strong	28	0.090	28.6+	17.9	17.9	17.9	17.9	0.0***
Interest in politics / same identity	66	0.469	13.6	21.2	22.7++	16.7	13.6	12.1
Interest in politics / opposite identity	50	0.005	26.0++	18.0	22.0++	18.0	16.0	0.0***
Interest in politics / nonidentity	46	0.528	8.7	13.0	19.6	21.7	21.7	15.2

Share of subjects (in percent) who reported lower or higher payoff; one-sided binomial tests that it is smaller (larger) that reference group. *(+) = 10%-level, ** (++) = 5%-level, *** (+++) = 1%-level

Tabela 4 – Disaggregated - Dishonesty - Morally loaded

Effects of Negotiation and Unidentified Corruption on Honesty

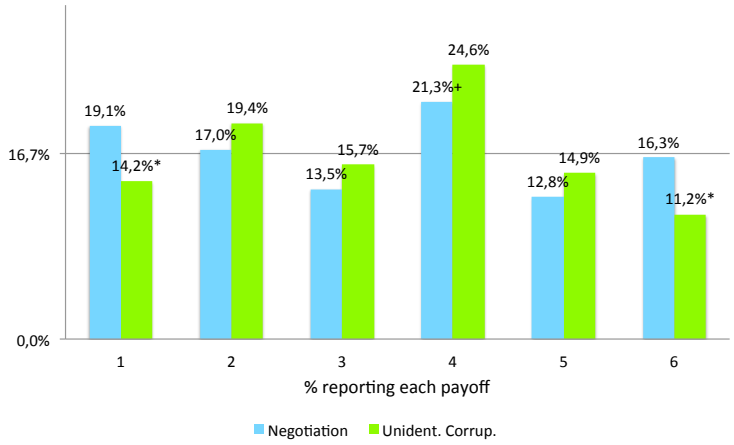


Figura 5 – Negot. x Unidentified corruption - Morally neutral

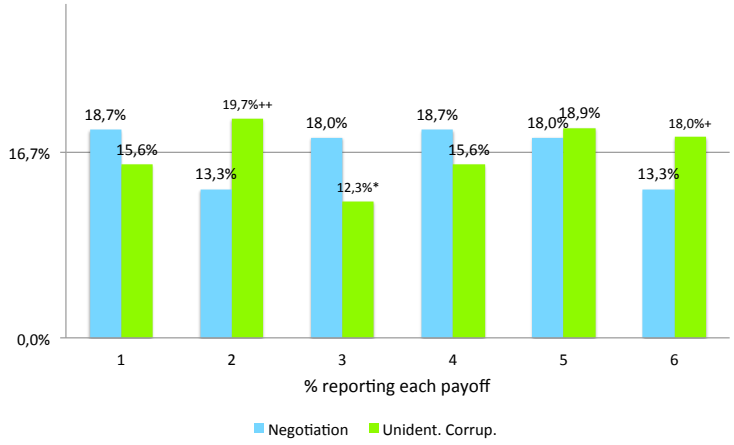


Figura 6 – Negot. x Unidentified corruption - Morally loaded

First, it was verified whether the proportion of the results declared in the negotiation groups for each of the six possible payoffs is equal to that expected from a fair die, 1/6 for each number.

The blue bars in the 5 and 6 graphs show the large number of honest claims seen in the aggregate analysis. However, in the morally neutral condition it is possible to see the claiming of the number 4 above 1/6, at a significance level of 90% (number 4: 0.21+). In the morally loaded condition, the results remain showing a fair distribution (1: 0.19 ; 2: 0.13 ; 3: 0.18 ; 4: 0.19 ; 5: 0.18 ; 6: 0.13). The Kolmogorov-Smirnov test does not reject the hypothesis that the results have a uniform distribution, with 99% significance.

In the unidentified corruption treatment under a morally neutral condition, the green bars show a small reduction in declarations, 1 and 6, at 90%, and a visible but not significant increase of 4 (1: 0.14* ; 4: 0.25 ; 6: 0.11*). Under morally loaded conditions, the green bars also show a certain ambiguity in the direction of the effect: although there was an increase in the claims of number 2, with 95% confidence, there was also an increase in 6 and a decrease in 3, at 90%.

Effects of Identified Corruption and Unidentified Corruption on Honesty

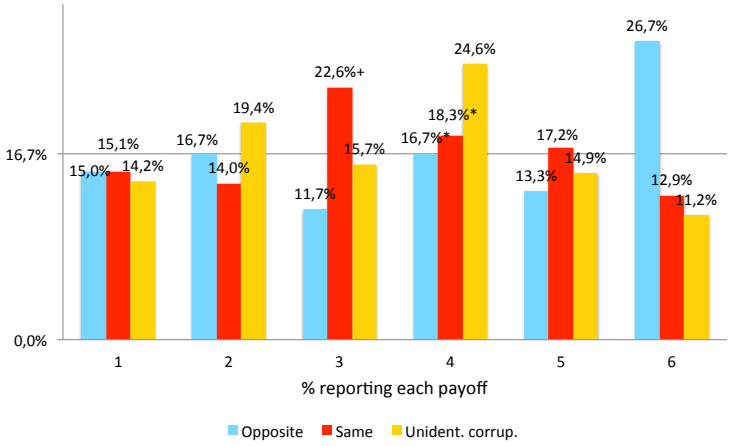


Figura 7 – Same and Opposite identity - Morally neutral

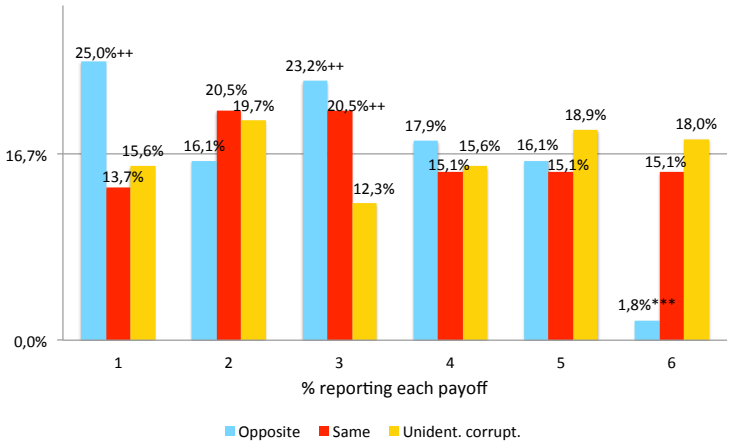


Figura 8 – Same and Opposite identity - Morally loaded

The red bars in graphs 7 and 8 show the results of the group with the same identity. There is an increase in the claim of smaller numbers and a reduction of larger numbers, mainly in the morally loaded condition (1: 13.7 ; 2: 20.5 ; 3: 20.5++ ;

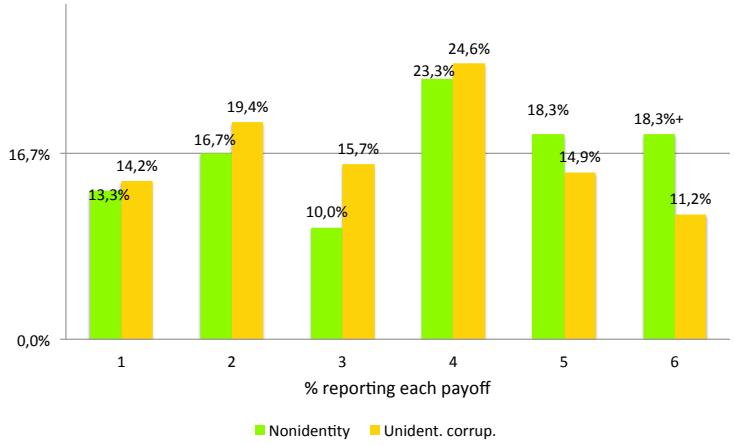


Figura 9 – Nonidentity - Morally neutral

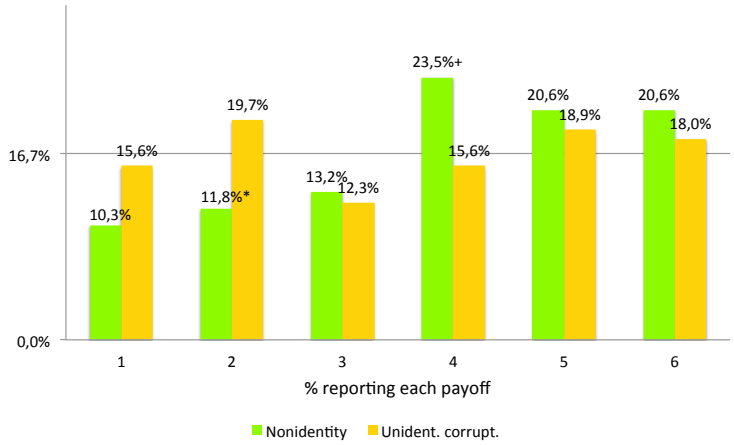


Figura 10 – Nonidentity - Morally loaded

4: 15.1 ; 5: 15.1 ; 6: 15.1). The magnitudes, however, are small and of little statistical significance. Fisher's Exact distribution and Chi-square tests found no evidence of difference in distributions between the two treatments.

The blue bars in the graphs show the results for participants of the opposite identity. Under morally neutral condition (1: 15.0 ; 2: 16.7 ; 3: 11.7 ; 4: 16.7* ; 5: 13.3 ; 6: 26.7+++), there is a strong and significant increase in claiming 6, even with 99% confidence. In turn, in the morally loaded condition, there was an expressive and significant reduction in the claim of the highest number and an expressive and significant increase in the declaration of the smaller numbers, 1 and 3 mainly (1: 25.0++ ; 2: 16.1 ; 3: 23.2++ ; 4: 17.9 ; 5: 16.1 ; 6: 1.8***), Fisher's Exact test finds evidence of a significant difference in distributions (FE 0.012). Of the 56 participants,

only one declared the number 6, which is a result well below the expectations of a fair die. This suggests that, in order to signal differentiation, people declare less than what was actually rolled, even if they have to lie and sacrifice small probabilities of material gains.

Finally, for nonidentity participants, a small increase was found in claim 6 (number 6: 0.18+), under a morally neutral condition, and small increases in larger numbers and a decrease in smaller numbers, significant for 2 and 4, in a morally loaded context.

Stronger identity and Interest in politics

When considering a stronger version of identity, excluding from the sample those who have little identification with their respective political orientations, there is generally a reduction in the effects and statistical significance under a morally neutral condition, but a stronger and more significant effect under a morally loaded condition, even with the expressive reduction of the sample. This result strengthens the perception that the interaction of political identity with corruption, in a socially sensitive context, can influence people's honesty.

When considering only the subjects who declare interest in politics, the effects become stronger and more significant in both conditions. Under morally neutral conditions, there is an increase in claims of 6s for participants of opposite identity (number 6: 27.7+++) and for those of nonidentity (6: 24.4++). Under morally loaded conditions, participants of the opposite identity (number 1: 26.0++ ; 3: 22.0++ ; 6: 0.00***) and those of the same identity (1: 13.6 ; 2: 21.2 ; 3: 22.7++) claims smaller numbers in greater proportions, as shown in table 4. These results suggest that the more interest a person has in politics, the more important his political identity is to his social identity.

1.5 Discussion

Hypothesis 1 and Alternative Hypothesis 1 state that the salience of political corruption can affect the dishonesty of citizens through the cross-norm inhibition effect and/or by the saliency of ethicality, depending on the most salient norms in a given context. The first effect would increase cheating among participants, while the second would decrease dishonesty. This study found no significant differences between the expected results in the negotiation treatment and in the unidentified corruption treatment. Thus, it does not provide support for the hypotheses, given the level of

external incentive. But it is also not possible to rule out that both effects acted on the participants' behavior and were canceled, since the design of the experiment cannot separate the two effects. Further studies, with different designs and levels of external and internal incentives, are necessary to better understand the influence of the perception of generalized political corruption on the behavior of individuals.

Hypothesis 2 states that if a participant has the same political identity as a corrupt group and the subjects pay attention to the corruption of these political agents, they tend to be more dishonest in a subsequent and unrelated task; and Hypothesis 3 states that if the participant has the opposite political identity, and the subjects pay attention to the corruption of these political agents, they tend to be more honest in a subsequent and unrelated task. Therefore, it is expected that the incidence of corruption will increase the dishonesty of in-group members and decrease that of those outside the group. In the experiment, this should translate into an increase in the proportion of higher numbers declared in the dice-rolling game for participants with the same identity and a decrease in the proportion of higher numbers declared for participants with the opposite identity. But since cheating has not been identified in the unidentified corrupt treatment, there is no level of dishonesty to be reduced and therefore participants of opposite identity must claim the same results as those in the treatment of unidentified corruption.

On the one hand, corroborating the social identity theory and hypothesis 3, participants who claim to have an identity opposite to that of the corrupt want to differentiate themselves from these politicians and, therefore, declare to have obtained values lower than those claimed in the treatment in which the corrupt are not identified – however, this effect only occurs when the context of acts of corruption is morally more condemnable. These participants were expected to report their results honestly, but there is evidence that some of them preferred to appear honest than to be honest, and falsely claimed less than they deserved. Merely complying with the norms of honesty does not explain the results. It seems that some subjects are exchanging the possibility of a small material gain for a small gain of social image. It would be interesting to test the behavior of this trade-off when large monetary gains result from large losses of social image.

On the other hand, support for social identity theory and hypothesis 2 was not found in participants with the same political identity as corrupt agents. In this case, contrary to what was expected, the salience of dishonesty also induced the search for differentiation; but only in a morally loaded context, for those who have strongly the same identity and those who claim to be interested in politics – still, in a smaller and less significant proportion than the opposite identity group.

Hypothesis 4 states that subjects who do not declare themselves politically to the right or to the left (nonidentity), and pay attention to the corruption of an identified political group, tend to be more dishonest in a subsequent and unrelated task; and Alternative Hypothesis 4 state that these participants tend to be more honest. These hypotheses reflect hypothesis 1 and alternative hypothesis 1, respectively. Thus, the results of the unidentified corrupt treatment and the nonidentity group in the identified treatment was expected to show similar results – in the first, the corrupt group is not identified and, in the second, the participant does not belong to any group. It is curious, however, that very different results were found for the two treatments. The identification of the dishonest agent made the cheating behavior more salient and weakened the objective of acting appropriately for people not moved by the norms of social identity, bringing support to hypothesis 4 and rejecting alternative 4. The lesser concern with the social image led them to behave more like a *homo economicus*, even after reading about acts of political corruption. It cannot be said that their behavior has not been affected by the saliency of ethicality, but there is a predominance of the cross-norm inhibiting effect, increasing the likelihood of observers violating the rules of the proposed game in search of material gains.

Hypotheses 2.1 and 3.1 state that the more participants identify themselves with the same political identity or with the opposite political identity, the greater the effect of the salience of corruption on their behavior. Two strategies were used to test these hypotheses: a stronger version of the identified treatment, excluding from the sample those who claim to have little identification with their respective political identities; and a sample with only participants who declare interest in politics. The premise is that political identity is a more important part of social identity for subjects more interested in politics. The stronger version of the identified treatment shows a significant increase in the proportion of smaller numbers claimed by the participants, but only for the same identity group and under a morally loaded condition. The sample of those most interested in politics shows an increase in the claim of smaller numbers and an increase in the level of significance for both the same identity and the opposite identity group, but, again, only under morally loaded conditions. The results indicate that the more a person is interested in politics, the stronger his desire to differentiate himself from the corrupt on morally relevant issues, bringing some support for hypotheses 2.1 and 3.1, given the context.

Finally, hypothesis 5 states that the context in which corruption occurs mediates the effects of its salience on the behavior of citizens. As can be seen in the previous paragraphs and in tables 3 and 4, the context in which corruption occurs is decisive for practically any effect to be found. While morally loaded contexts can

elicit strong responses from agents exposed to corruption, morally neutral contexts rarely elicit responses.

1.6 Conclusion

The purpose of this chapter was to experimentally look for associations between the salience of political corruption and the honesty of citizens. The study employed an online version of the dice-rolling paradigm to test whether individuals who read a text reporting that a given legislation was passed after politicians received bribes cheat more in the game than those who read that it was passed after a political negotiation process. It was also verified whether the moral load of the bill and the political identity of the participants in relation to that of the corrupt politicians moderate the expected effects.

In this study, the distribution of the results declared in the dice game was not different from the expected distribution of a fair die neither in the negotiation treatment – the baseline – nor in the unidentified corruption treatment – where the participants read a text about corruption that does not provide the political identity of the corrupt. In the absence of sufficiently high external incentives – a characteristic of this work – participants may prefer to avoid material gains from cheating to comply with the rules presented and, thus, obtain small gains in self-image. Even if the risk of being caught and the external sanction for cheating are practically null. This result is in agreement with the contributions of Fischbacher and Föllmi-Heusi (2013), Shalvi et al. (2011a), Shalvi et al. (2011b), Lewis et al. (2012), Shalvi et al. (2012) and other studies that find that people not only want to be seen as honest, they also want to perceive themselves as such.

When subjects receive information about the political identity of the corrupt, the identity interacts with the context to significantly influence the honesty of individuals. On the one hand, a proportion of participants with the opposite political identity larger than the statistically reasonable claim the lowest numbers in the game. They try to signal honesty to differentiate themselves from the corrupt, even if they have to cheat for that. Like the nuns of Utikal and Fischbacher (2013), the participants in this study tell lies that are financially disadvantageous for them in exchange for possible gains in reputation. On the other hand, there was no evidence that subjects with the same political identity as the corrupt significantly change their behavior when reading about acts of corruption.

The study documents that nonidentity participants in the identified corrupt

treatment cheat more than those in the unidentified treatment. The mere identification of dishonest agents makes the cheat more salient and weakens the objective of acting appropriately, when the subjects are not being influenced by group norms. The study also provides evidence that the more participants identify with political groups, and the more importance they attach to politics, the greater the effects of corruption's salience on their behavior, corroborating social identity theories. Finally, the context in which corruption occurs is also important. While morally loaded contexts can elicit strong and significant responses from agents exposed to corruption, morally neutral contexts induce weak and often non-significant responses. Thus, it is concluded that corruption requires, in addition to an identified corrupt agent, an interested observer and a relevant context to materialize as a moral flaw, capable of inducing honest and dishonest behavior.

Further studies are needed to better understand the association between the perception of political corruption and the honesty of citizens. It would be desirable for these new works to employ different methodologies and levels of internal and external incentives, as well as to be applied in different contexts – morally more or less loaded – cultures and political institutions. In particular, it would be a big step forward to determine in which contexts the perception of corruption provoke a cross-norm inhibition effect and when it makes subjects pay attention to their own moral standards.

2 Corruption and Social Trust: An Experimental Approach

2.1 Introduction

The aim of this study is to verify whether the salience of political corruption can affect the social trust of individuals and if this effect is mediated by the context in which corruption occurs and by the individual's political identity. For this, we set up a randomized survey-based experiment with Brazilian subjects, a country that besides presenting high levels of corruption[1] systematically appears in the last positions in terms of trust in people in general, according to the World Value Survey[2]. We found that the perception of political corruption affects the trust of individuals, but only of those who claim to have a right-wing or centrist political identity. In a morally loaded context, corruption has adverse effects on the social trust of these participants. However, in a morally neutral context, we find the salience of corruption associated with an increase in trust.

Trust is not a new topic in the literature, but its study is still not widespread among economists. In the late eighties, Coleman (1988) introduced the concept of social capital into the economic debate, providing tools for researchers to insert social relations such as trust and trustworthiness in the study of economic action. A few years earlier, Kenneth Arrow (1972) drew attention to the presence of an "*element of trust*" in "*virtually every commercial transaction*" and "*that much of the economic backwardness in the world can be explained by the lack of mutual confidence.*" These concepts, previously strange in the profession, became an important part of the economic literature and were surveyed by Nannestad (2008) and Alesina and Giuliano (2015). The underlying argument for studying social capital is that high levels of trust and trustworthiness in a society facilitate cooperation, exchanges, the production of goods and services and the provision of public goods.

Indeed, the literature is full of statistical evidence associating trust in strangers with desirable economic outcomes. Knack and Keefer (1997) and La Porta, et al. (1997) show that countries with higher levels of trust have more economic growth;

[1] See: Corruption Perception Index 2020 at: https://www.transparency.org/en/cpi/2020/index/bra.

[2] See: Inglehart, R., C. Haerpfer, A. Moreno, C. Welzel, K. Kizilova, J. Diez-Medrano, M. Lagos, P. Norris, E. Ponarin and B. Puranen et al. (eds.). 2014. World Values Survey: All Rounds - Country-Pooled Datafile Version: https://www.worldvaluessurvey.org/WVSDocumentationWVL.jsp.

Tabellini (2010) finds a positive relationship between trust and economic development for Western European regions; and Algan and Cahuc (2010), using the trust of Americans of European descent as an instrument of trust in their countries of origin, claim to have demonstrated the causality of these findings. There is also evidence that in more trustworthy economic environments, the most efficient companies tend to be larger and decentralize more decisions (Bloom et al., 2012; and La Porta et al., 1997). In international trade, countries that demonstrate a greater bilateral relationship of trust among their citizens, trade more with each other, and exhibit a higher level of direct investments and portfolio investments between them (Guiso et al.; 2009). Most surprisingly, the study shows that bilateral trust explains the level of trade between two countries better than extended gravity models. Trust is also related to more risky investments, such as seed capital and start-ups (Bottazzi et al.; 2016) and investments in portfolios and stocks (Guiso, Sapienza, and Zingales, 2008; 2009). At the individual level, we have evidence that people who trust more are more likely to become entrepreneurs (Guiso, Sapienza, and Zingales; 2006) and an inverted U-shaped curve between trusting in strangers and income (Butler et al; 2016).

Social trust is also associated with good results in the public sector. La Porta et al. (1997) found a positive correlation between trust and efficiency of justice, quality of bureaucracy and tax compliance; negative correlation with corruption; and positive social effects in reducing child mortality and educational performance. Aghion et al. (2010) show that the lack of social trust can lead individuals to demand more regulations and state interventions in society, even from corrupt and inefficient governments. Civic attitudes, such as trust and trustworthiness, allow societies to adopt more efficient institutions against labor market risks (Algan and Cahuc; 2009) and sustainable social welfare policies (Bjørnskov and Svendsen; 2013), while countries with a larger share of non-civic citizens tend to create unsustainable social welfare states (Algan, Cahuc and Sangnier; 2016). Bjørnskov and Svendsen (2013) also document that high levels of social trust determine high levels of political trust, strong legal institutions that protect private property rights and low levels of bureaucratic corruption. And Padro-Y-Miguel, Qian and Yo (2013) found that trust is associated with a greater provision of public goods in Chinese villages.

It is worth highlighting the correlations between trust and trustworthiness with subjective and individual evaluations of well-being, of happiness, and of health, found by Helliwell and Putnam (2004), because "*the prima facie case can be made that the ultimate 'dependent variable' in social science should be human well-being, and in particular, well-being as defined by the individual herself, or 'subjective well-being'*"

Helliwell and Putnam (2004).

The concept of trust studied in all of these papers is defined as generalized (or social) trust, as opposed to particularized trust. In particularized trust, the subjects of trustworthiness are family members, relatives, friends or close acquaintances. Social trust extends beyond the family or close people, it is a relationship of trust between strangers. Algan and Cahuc (2013) show that only the measures of generalized trust are significantly correlated with economic growth, finding no effect for different metrics of particularized trust. Indeed, two experimental studies highlight the negative correlation between generalized and individualized trust: in Ermisch and Gambetta (2008), we see that people with stronger family ties exhibit less confidence in strangers than people with weaker family ties; and Iacono (2018) finds that living in denser communities encourages trust among strangers, even for people who live socially isolated in those communities. Greater exposure, motivation and experience in dealing with strangers help build trust. The extension of morality and cooperation beyond the intimate circle of family and friends is the key to cooperation and social development. In the words of Alesina and Guiliano (2011) "*the more people rely on the family as a provider of services, insurance, transfer of resources, the lower is civic engagement and political participation. The more the family is all that matters for an individual the less she will care about the rest of society.*"

Once the relevance of social trust for the efficient production of public and private goods has been introduced, it is important to understand now whether, and how, we can expand the scope of people's trust beyond kinship. The ability of public policies to influence social trust has been the subject of intense debate in the literature. Some scholars argue that trust is stable and depends on long-term factors, while others argue that it is possible to shape it with the right policies.

Supporters of long-term factors point to the existence of cultural [3] (beliefs and values), institutional[4] and historical components[5] that lead to persistence and

[3] See: Tabellini (2008), Guiso, Sapienza and Zingales (2006) and (2008), Algan and Cahuc (2010) and Dohmen et Al. (2012).

[4] See: Tabellini (2010) and Nannestad et al. (2014).

[5] Durante (2010) argues that norms of trust developed in pre-industrial times, when subsistence farmers had to deal with the effects of climate fluctuations on food production and, in the absence of well-functioning credit and insurance markets, they had to cooperate to guarantee future consumption. Nunn and Wantchekon (2009) present evidence that individuals whose ancestors were heavily affected by the slave trade have lower levels of confidence in their relatives, neighbours, ethnic groups and the local government today. Tabellini (2010) argues that the regions of Europe with the highest illiteracy rates in the late nineteenth century and the worst political institutions in the period from 1600 to 1850 currently have less social trust. Cagé and Rueda (2016) show that the early introduction of the press by Protestant missionaries in 19th century sub-Saharan Africa has effects on contemporary social trust.

path dependence of social trust, although it is not invariable and evolves over time. These conclusions are supported by theoretical models that describe how inherited beliefs and norms of honesty can generate multiple equilibria and persistence[6]. There are also interesting studies that have documented the role of social preferences as betrayal aversion in determining the social trust.[7]

A robust relationship between justice, socioeconomic equality and social trust can be found in the literature. Less socially polarized communities, with less income inequality and with more efficient mechanisms to contain dishonesty and injustice, tend to have a higher proportion of civic citizens, willing to trust and cooperate for the common good[8]. In this spirit, some authors such as Knack and Zak (2003) suggest that trust can be shaped efficiently through policies that reduce inequality, such as raising the level of education and redistributive transfers, and increasing civil liberties. Algan, Cahuc and Sheifler (2013) find evidence that teaching practices based on working in groups and on cooperation between students promote more generalized trust than vertical practices, where teachers transmit knowledge to students in a more hierarchical way. In a study with immigrants of several generations to the United States, Giavazzi (2019) finds that immigrants from different countries receive different cultural inheritances, and these differences are determinant in the speed with which new institutions shape old beliefs and values. In particular, the strength of family ties, the ability to learn the local language and the level of segregation in the neighborhood influences the convergence of values.

In addition to the effectiveness of public policies, there is also debate about the direction of causality between inequality, corruption and social trust. La Porta et al. (1997), Aghion et al. (2010) and Bjørnskov and Svendsen (2013) suggest that lower levels of social trust generate more corruption. Rothstein and Eek (2009) argue that it is corruption that undermines social trust, and set up an experiment to test this hypothesis. They discover that reading a story about political corruption in an unknown country leads participants to generalize and expect more dishonest behavior from other people in that country. Uslaner (2013) and Knack and Zak (2003) describe cycles in which economic inequality decreases the social trust, which

[6] In the model by Aghion et al. (2010) mistrust and the demand for public regulation co-evolve and generate multiple equilibrium. In the good equilibrium, there is a greater proportion of trustworthiness citizens and a low demand for regulation. In the low-trust equilibrium, people do not trust others and therefore demand more government intervention, even if the government is corrupt and inefficient. See also: Guiso, Sapienza and Zingales (2008) and Bidner and François (2011).

[7] A more detailed discussion of this literature can be found in Fehr (2009).

[8] See: Zak and Knack (2001) and Bjørnskov (2006) for evidence across countries and Alesina and La Ferrara (2002) for evidence at the individual level.

in turn leads to an increase in corruption; the increase in corruption shifts resources from the provision of public goods to a politically well-connected elite, which fuels inequality. Thus, there is a persistent cycle of mistrust, expropriation and inequality[9].

The causal relationship between political corruption and distrust is still an open debate. We have few randomized studies addressing the issue. Algan and Cahuc (2013) state that future research needs to examine, through experiments, which public policies, in addition to education, promote trust among citizens themselves and among citizens and institutions. This chapter contributes to this debate by reversing the question: what behavior by political authorities can generate distrust? We have shown experimentally – through randomized tests with Brazilian subjects – that the salience of political corruption can affect the social trust, and that this effect is mediated by the context in which corruption occurs and the political identity of the participants.

This study contributes to the debate on the persistence and the possibility of building social trust through public policies, showing that the fight against political corruption can be an instrument to improve social trust and cooperation in society. By showing empirically that people's social trust can be affected by perceptions of corruption, our work joins the efforts of La Porta et al. (1997), Aghion, et al. (2010), Bjørnskov and Svendsen (2013), Rothstein and Eek (2009) and Uslaner (2013) to determine the direction of causality between corruption and social trust. Like this research, Rothstein and Eek shows experimentally that corruption causes distrust. However, they claim that only corruption associated with increased inequality generates distrust, and that neither small nor even large acts of corruption alone would have any effect on the social trust. They also claim that corruption only affects trust when agents have not yet formed beliefs about the trustworthiness of local people. Our experiment challenges these claims and shows that the mere salience of corruption is enough to increase people's distrust; and that the corruption of the authorities can modify the social trust of people even in places where they already have established beliefs[10].

[9] Nannestad (2008), quoting other authors, describes a cycle of coevolution between corruption and mistrust, but this time fed by norms of dishonesty instead of inequality: "*e.g., Rothstein 2000, Rothstein and Stolle 2002) emphasize the importance of norms in creating and maintaining generalized trust and the importance of institutions for such norms. If in their dealings with bureaucrats people find it necessary to bribe them, they will infer that corruption is the norm and that corruption pays off. This means that not only the bureaucrats but most other people as well must be dishonest (bribing the bureaucrats) and hence cannot be trusted. Moreover, people will infer that they have to act dishonestly themselves in order to avoid the 'sucker's payoff'.*"

[10] Rothstein and Eek (2009) deliver to the participants texts on the stories of police and doctors, in an unknown country, requesting bribes from people so that they can promptly receive attention. Then, they ask how much the participants trust the politicians and the population

By showing that beliefs about the trustworthiness of strangers can change and be updated by receiving small pieces of information, our study relates to the literature on the transmission and updating of beliefs and works such as Bénabou and Tirole (2002), Eil and Rao (2011) and Bénabou (2015). The article by Butler et al. (2016), which we will discuss in more detail in the theoretical section, provides elements to understand why the belief in the trustworthiness of strangers is constantly updated by comparing expected and realized behavior.

We also believe that, by documenting that participants with different political identities have different expectations regarding the trustworthiness of society and react differently to the salience of political corruption, our work is related to the Moral Foundations Theory introduced in Haidt and Graham (2007) and Haidt and Joseph (2004), a theory of social psychology that argues that people from different political spectrum respond differently to different moral stimuli.

The rest of the chapter is divided as follows: the next section makes a brief theoretical consideration on the topic; then, we present a discussion on the trust metric in the literature; in sections four and five, we present the hypotheses and methodology and the research results; then we close with a brief conclusion.

2.2 Theory and hypothesis

This section briefly discusses how social trust can vary in the short term, but remain stable in the long run, and presents the hypothesis to be tested.

Butler et al. (2016) build a theoretical framework to show that, at the individual level, income presents an inverted U-shaped curve with the intensity of trust. In the model, each subject receives an initial allocation and chooses how much of it he wants to invest, sending it to a partner – randomly matched, as in Dixit (2003) –, so that the resources are multiplied. The partner, who can be honest or cheater, chooses which proportion of the multiplied resources to send back. If the partner is a cheater he retains the entire amount, if the partner is honest he returns a fair amount to the investor. Subjects with little social trust lose earning opportunities, while individuals who over-trust over-invest and are more often betrayed. Thus, the authors find that there is a *right amount of trust* that maximizes individual gains.

If an adverse shock, such as an increase in corruption or an institutional worsening, leads to a decrease in social trust, the increase in the expectation of defection

of that country. The authors argue that people infer the average trustworthiness of society from the behavior of the authorities, since the interaction between people would lead to the convergence of attitudes of citizens and politicians.

can inhibit the realization of mutually beneficial investments and exchanges, at least in the short term. However, if this shock does not affect society's trustworthiness, beliefs will be updated in the direction of the *right amount of trust*, as people's expectations of trustworthiness are confirmed by the observed behavior. As the resources sent by investors who trust more or who are less risk averse are being honored by the trustees, the number of people willing to trust and invest will return to their long-term level.

On the *supply side*, the higher the proportion of trustworthy citizens, the higher the level of income in the *right amount of trust* and, therefore, the higher the average income of individuals. A decrease in the proportion of trustworthy people, ceteris paribus, causes some expectations to be above the trustworthiness actually observed and needs to be adjusted as investment losses are recognized. In this way, people are led to trust each other less and less, until a new social trust equilibrium below the initial social trust is achieved.

It is worth noting that injustices – especially procedural unfairness –,[11] betrayal aversion[12] and economic inequality[13] are important for cooperation and social trust; and there is no need to argue that political corruption is inherently unjust. It is directly associated with procedural unfairness, it can be interpreted as a betrayal of the trust deposited by voters in politicians – even more so if campaign expectations and promises are to fight corruption – and it is positively correlated with economic inequality. Based on these premises, political corruption has a lot of scope to affect not just trust but also trustworthiness.

Rothstein and Eek (2009) show that corruption can undermine social trust. However, they claim that this only occurs when corruption is associated with increased inequality; and when beliefs about the trustworthiness of the local population have not yet been formed. They do not consider that other preferences associated with corruption, such as aversion to injustice and betrayal, can affect social trust. This study aims to take a step in this direction and raises the hypothesis that:

- the salience of political corruption can diminish the social trust of individuals, at least in the short term;
- this effect is mediated by the context in which corruption occurs: the more morally loaded, the greater the effect;

[11] See Rothstein and Eek (2009) and De Cremer et al. (2005).
[12] See Fehr (2009).
[13] Alesina and La Ferrara, 2002

- and by the political identity of the subject.

2.3 Measuring trust

The literature basically uses two approaches to measure trust: experiments with games, such as the trust game introduced by Berg et al. (1995) and surveys based on self-reported questions, such as Alesina and La Ferrara (2002). In this work, we will employ the second approach, but a brief discussion of the two metrics is pertinent.

In the first approach, the trust game, a participant (sender) can send part of his initial allocation to another participant (respondent). The quantity sent is multiplied by a value defined by the experimenter (usually two or three) and added to the respondent's initial allocation. The respondent then chooses how much they want to send back to the sender. In this experiment, the sender's behavior is generally interpreted as trust and the respondent's behavior as trustworthiness.

The second approach is the proportion of people who respond positively to a question like "In general, would you say that most people can be trusted or that you need to be very careful when dealing with people" contained in the World Values Survey (WVS) and many other surveys such as the General Social Survey, the European Social Survey and the Latin Barometer. This metric is widely used in the literature [14], is a good measure of generalized trust[15], and is well correlated with trustworthiness indicators[16].

Although widely used, the literature shows some challenges to survey-based measures. Glaeser et al. (2000) set up a laboratory experiment with Harvard students and found that the answers to the WVS question are not correlated with the sender's behavior in the trust game, but are correlated with the respondent's trustworthiness. Lazzarini et al. (2003) replicate the experiment with Brazilian students and find

[14] For example: Aghion et al. (2010), Knack and Keefer (1997) and Guiso et al. (2004).

[15] See Bjørnskov (2006).

[16] See Nannestad (2008). Knack and Keefer (1997) describe that the experiment "*conducted by the Reader's Digest (as reported in The Economist, June 22, 1996) provide reassuring behavioral evidence for the validity of these survey measures. Twenty wallets containing $50 worth of cash and the addresses and phone numbers of their putative owners were "accidentally" dropped in each of twenty cities, selected from fourteen different western European countries. Ten wallets were similarly "lost" in each of twelve U. S. cities. The number of wallets returned with their contents intact was recorded for each city. The percentage of wallets returned in each country closely tracks the WVS measures: it is correlated with TRUST at 0.67, and with item (d) of the CIVIC index, on the acceptability of "keeping money that you have found" at 0.52 (partial correlations controlling for per capita income are even higher).*"

similar results. They conclude that the survey question is a good predictor of trustworthiness, but not trust.

Challenging this view, Fehr et al. (2003) uses a representative sample of the German population to show that trusting behavior (sending a sum) in the trust game is correlated with survey-based metrics, such as WVS, and that the channel through which trust in strangers acts is through a more optimistic expectation of the amount returned by the respondents. For them, this expectation can also be interpreted as a measure of trust. To reconcile these results, Bellmare and Kroeger (2007) compared the behavior in the trust game of a large and representative sample of Dutch households with a sample composed only of students. They show that students tend to send and return smaller amounts than participants in the representative sample. However, this difference is dissipated when controlled by the economic and social characteristics of the samples[17]. Lastly, Sapienza et al. (2013) argue that the sender's behavior in the trust game is affected both by the belief in the trustworthiness of others and by preferences, such as risk and inequality aversion and altruism[18]. By applying the trust game by asking senders to report their beliefs about the respondent's behavior, they were able to separate expectations from preferences. Thus, they showed that the WVS questions capture the expectation of the amount returned in the trust game and that both the answers to the WVS question and the sender's expectation in the trust game can be used as a measure of trust.

2.4 Experimental design and experiment procedure

Our hypothesis is that the salience of political corruption can diminish the social trust of individuals, at least in the short term, and this effect is mediated by the context in which corruption occurs and by the political identity of the subject. To test it, we set up an online experiment in which participants should read a text and take a reading comprehension test before answering questions about trust. The content of the texts was marginally varied and randomly distributed among

[17] Nannestad (2008) reports other studies that replicate and contest the research by Glaeser et al. (2000), such as Holm and Danielson (2005), which show that the main results can be generalized to students in Tanzania, but not for Swedish students; and both Levi (2003) and Hardin (2006), who argue that the sender's behaviour in the trust game is cooperation and not trust. Besides, Johnson and Mislin (2012) use a data set containing observations of trust behaviour taken from 152 replications of the trust game, collected in 35 countries, and find strong evidence that the WVS trust question correlates with the trust observed in the laboratory.

[18] Schechter (2007) runs both the traditional trust game and a very similar gambling game in rural Paraguay, and shows that risk aversion plays an important role in the sender's behaviour in the trust game. It also shows that the difference documented in the literature in the trust levels of men and women, as well as of people with lower and higher income, is due to the greater risk aversion of women and low-income people.

the participants, in order to constitute the four analysis groups: negotiation in a morally neutral context, corruption in a morally neutral context, negotiation in a morally loaded context and corruption in a morally loaded context. Participants were randomly selected for one of the four groups, determined by the four texts below.

- According to a text that circulates online, after **intense negotiations between** deputies in the National Congress, a proposal that allows the **installation of duty-free shops in cities located on the border with other countries** was approved by the Chamber of Deputies. The proposal now goes to the Federal Senate.

- According to a text that circulates online, after **the payment of bribes to the** deputies of the National Congress, a proposal that allows the **installation of duty-free shops in cities located on the border with other countries** was approved by the Chamber of Deputies. The proposal now goes to the Federal Senate.

- According to a text that circulates online, after **intense negotiation between** deputies in the National Congress, a proposal that allows the **faster acquisition of medical and hospital equipment to treat patients with covid-19** was approved in the Chamber of Deputies. The proposal now goes to the Federal Senate.

- According to a text that circulates online, after **the payment of bribes to the** deputies in the National Congress, a proposal that allows the **faster acquisition of medical and hospital equipment to treat patients with covid-19** was approved in the Chamber of Deputies. The proposal now goes to the Federal Senate.

In morally loaded conditions, the situations described in the reading test refer to a proposal for faster release of resources for the acquisition of equipment to treat patients with covid-19, while in morally neutral conditions they refer to the installation of duty-free shops in cities located on the country's borders. It is expected that under morally loaded conditions the effect of the salience of corruption will be more pronounced than under morally neutral condition.

Table 5 summarizes the treatments and conditions.

After the reading test, participants answered a question of social trust: "In general, would you say that most people can be trusted or that you need to be very careful when dealing with people?" – a literal translation of the well-known WVS question to Brazilian Portuguese. The two possible responses were: "You need to be very careful" or "Most people can be trusted". We want to see if there is a statistical difference in the proportion of people who responded positively to this question between the *negotiation group* and the *corruption group*, for each condition.

		Treatment	
		Negotiation	Corruption
Condition	Morally neutral (MN)	Negotiation under MN	Corruption under MN
	Morally loaded (ML)	Negotiation under ML	Corruption under ML

Tabela 5 – Treatment and conditions - Social Trust

In addition to the question of social trust, two more questions were asked about trust in politicians and democracy. A small questionnaire with demographic questions, a question about the interest in politics and one about the political identity of the participant and two basic logic tests preceded the reading test. Logic questions were deleted from the database as soon as it was finalized. Its only function was to make sense of the reading test, so that it was not lost among demographic and trust questions. Interest in politics and political identity were elicited for the study of the first chapter, and were not used here.

The survey was applied to Brazilian subjects (in Brazilian Portuguese), answered online, through the monkeysurvey.com website, with expressly voluntary participation. The link was sent to the subjects through WhatsApp Messenger, with the request to pass it on to others interested in participating[19]. The complete research instrument, with the four texts of the reading comprehension test, can be found in Appendix A.

As discussed in the first chapter, online experiments are useful tools for collecting data with internal validity. They allow the use of a more representative sample and a significant increase in its size without increasing costs. In addition, it does not require the use of attendance fees and has a much lower cost of inconvenience to participants. On the other hand, there are greater sources of distractions and a greater likelihood of receiving quick and less accurate responses than in the laboratory; greater difficulty in monitoring the identity of the participants; and selective dropout can occur in a way that the researcher cannot understand.

The main strategy used in this study to minimize the problems resulting from haste and lack of attention, and also to decrease abandonment, was the elaboration of a simple, short and direct questionnaire. The estimated time to complete the experiment, according to *surveymonkey.com*, was 4 minutes. The typical time spent on the experiment was 6 minutes and 40 seconds. Only 10.7% of the sample ended below the expected 4 minutes and 2.1% of the participants responded in less than

[19] The experiment was carried out in July 2020, during the covid-19 pandemic.

3 minutes. It can be concluded that most participants spent the time necessary to read and answer the questions carefully.

This experiment was carried out in conjunction with the experiment in the first chapter. The sample of this study contains 571 subjects. Of these, 315 were women and 256 men; 41 participants aged 18 to 24, 142 aged 25 to 34, 250 aged 35 to 44, 63 aged 45 to 54, 59 aged 54 to 65 and 16 participants aged over 65. Both the age group and the gender did not prove to be important covariates during the analysis of this study.

The experiment was open to participation from July 8 to August 5, 2020, during the height of the first wave of COVID-19 in Brazil. The graph in Appendix B shows that the first 7 days received 66% of the total participation, and in 15 days the participation reached 96% of the final sample. The past few days have received few entries.

2.5 Results

2.5.1 Trust in the presence of corruption

Let's start by comparing the proportion of trusting participants in the group that read about negotiation with the group that read the text on corruption, for the entire sample of the study – without differentiating between morally neutral and morally loaded conditions.

The graph 11 illustrates the percentage of participants who claim to trust people in general, for both groups: the negotiation group in red and the corruption group in blue. We can see that in the two groups approximately one third of the participants say that they can trust people. Therefore, we found no significant difference in the proportion between the two samples (n = 571; F.E. 0.791; χ^2 = 0.742). Interestingly, in this online survey, the percentage of people who claim to trust is well above that found in the World Value Survey for Brazil – the sample has greater confidence than the Brazilian population. Probably because the distribution of the online survey instrument concentrated participation in groups with higher income and education. Although interesting, it is hardly surprising, as trust is correlated with income and education.

Let us now look separately at those who read the morally neutral message (legislation for the establishment of duty-free shops in border cities) and those who read the morally loaded message (legislation to help fight the pandemic).

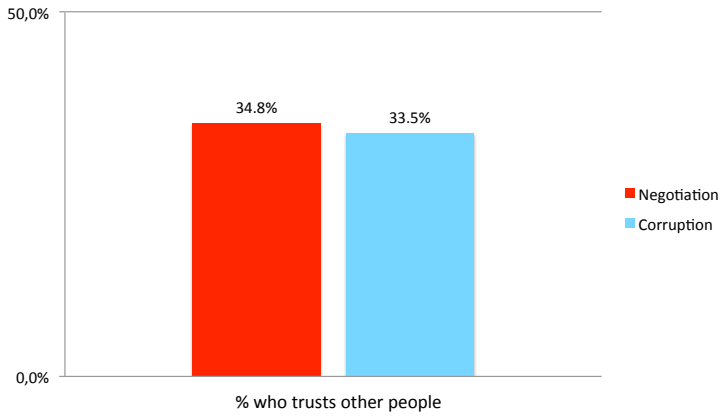


Figura 11 – Trust - All sample

Graphs 12 and 13 show the proportions of people who trust under morally neutral and morally loaded conditions, respectively. In the first condition, we found a significantly higher proportion among the participants in the corruption group, 36.2%, than among those in the negotiation group, 27.2% (n = 288; F.E. 0.128; χ^2 = 0.102). In morally loaded conditions, we found the opposite effect: there were a greater proportion of people who trust in the negotiation group, 41.9%, than in the corruption group, 30.5% (n = 283; F.E. 0.049; χ^2 = 0.046).

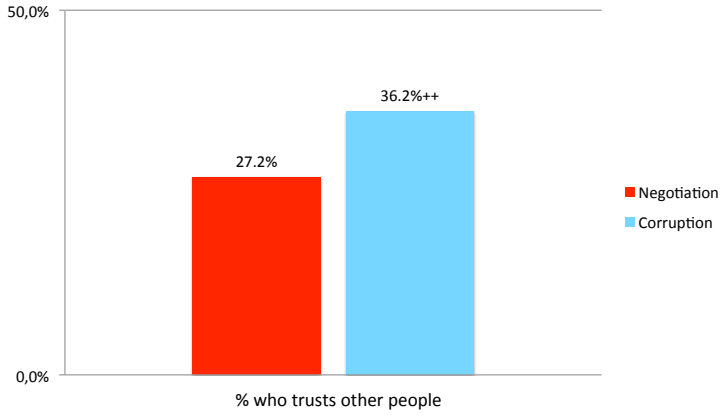


Figura 12 – Trust - Morally Neutral

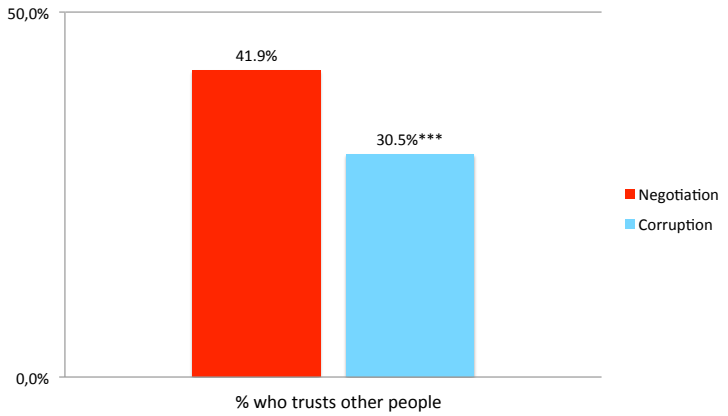


Figura 13 – Trust - Morally Loaded

Table 6 below summarizes the results found[20].

Treatment	*Negotiation*	*Corruption*			
	Trust – Yes (%)	*Trust – Yes (%)*	*n*	*F.E.*	χ^2
All sample	34.8	33.5	571	0.791	0.742
Morally neutral	27.2	36.2**	288	0.128	0.102
Morally loaded	41.9	30.5***	283	0.049	0.046

Share of subjects (in percent) who reported trusting (Yes); one-sided binomial tests that corruption group is smaller (larger) than negotiation group.
*(+) = 10%-level, ** (++) = 5%-level, *** (+++) = 1%-level

Tabela 6 – Social Trust

The result found in the morally loaded condition is in line with our hypothesis that corruption has adverse effects on trust. However, the positive effects of corruption on the social trust in morally neutral contexts were unexpected. One possible explanation is that the salience of dishonesty not only brings up norms of honesty,[21] but it can also raise awareness of the norms of cooperation, making people trust others more.

2.5.2 Trust in the presence of negotiation – given identity

Before testing the effects of the salience of corruption on the confidence of participants given their political identity, let's check whether these groups exhibit equal trusting in negotiation treatment.

[20] The values accompanied by the symbols (+), (++) or (+++) showed an one-sided binomial tests that corruption group is larger than negotiation group, for a significance level of 10%, 5% and 1%, respectively. The values accompanied by the symbols (*), (**) or (***) showed a decrease in the percentage of trust reported in relation to the control group, for the same significance levels.

[21] See Gino et al. (2009) for a detailed discussion.

In graph 14 we have in red, blue and green the proportion of left, right and centrist participants, respectively, who declare to trust people in general, under a morally neutral condition. We tested the hypothesis that the proportion of leftists who claim to trust is the same as that of centrist (n = 106; F.E. 0.000; $\chi^2 = 0.000$), and that the proportion of rightists who claim to trust is also equal to that of centrist (n = 90; F.E. 0.034; $\chi^2 = 0.043$). We also tested the joint hypothesis that the three proportions are equal (n = 147; F.E. 0.000; $\chi^2 = 0.000$). As we can see, we reject the three hypotheses. In our sample, there are more leftists who trust, 45.6%, followed by right-wingers, 24.4%, and in a much smaller proportion the centrist ones, 8.2%.

In the morally loaded condition, in turn, graph 15, our three analysis groups have the same proportion of people who trust. We cannot reject the hypothesis that the proportion of leftists is the same as that of centrist (n = 105; F.E. 0.842; $\chi^2 = 0.806$), nor that the proportion of rightists is the same as that of centrist (n = 93; F.E. 0.680; $\chi^2 = 0.664$). Nor can we reject the joint hypothesis that the three distributions are equal (n = 155; F.E. 0.876; $\chi^2 = 0.910$). This difference between morally loaded and neutral conditions stems from the increase in the proportion of right-wing and centrist, converging to the proportion of leftists who trust.

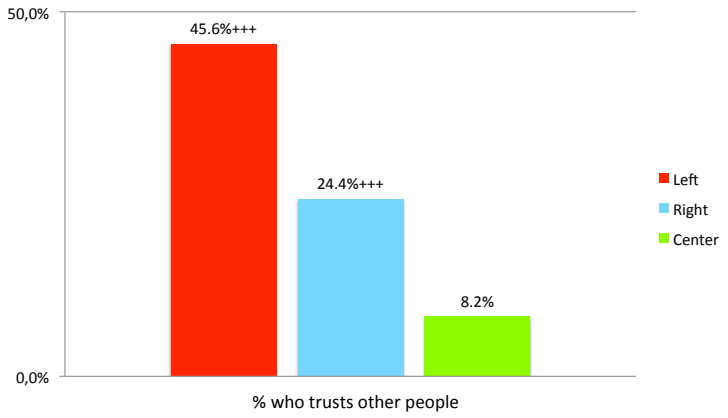


Figura 14 – Negotiation Group - Morally Neutral

The difference in trust between the different ideological groups is not particularly surprising. Graham and Haidt (2009) show that people of different political identities use different sets of moral foundations in their beliefs. The significant increase in the proportion of right-wing and centrist people in the morally loaded condition, however, seems quite peculiar, since the only difference between the texts read was the matter negotiated between political leaders, and not the way in which it was approved. A possible explanation is that, for the participants of these groups, the salience of the public health matter interacted with the political situation in

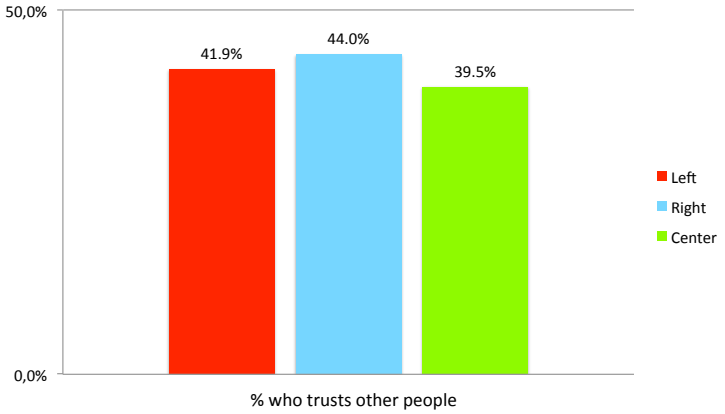


Figura 15 – Negotiation Group - Morally Loaded

Brazil, governed during the pandemic by a declared right-wing political group, and they interpreted the issue in terms of trusting or not in the incumbent political group.

2.5.3 Trust in the presence of corruption – given identity

We will now investigate the difference in trust between the negotiation and corruption treatments, controlling for different political identities.

Political identity: left

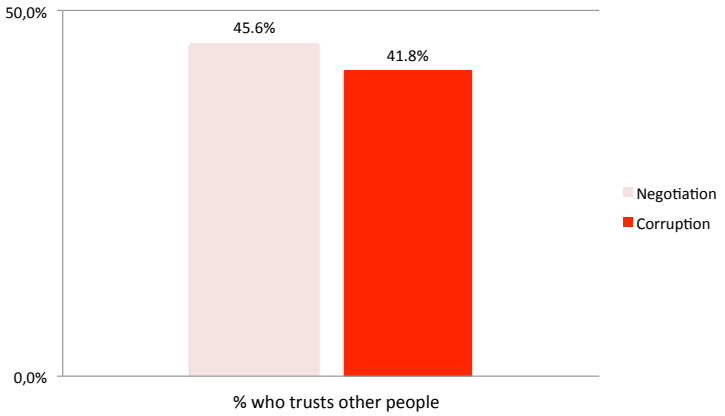


Figura 16 – Left Identified - Morally Neutral

Graphs 16 and 17 show the proportion of those who claim to trust among the leftist participants. We did not find a significant difference between the corruption group and the negotiation group, neither in the morally neutral condition (n = 112;

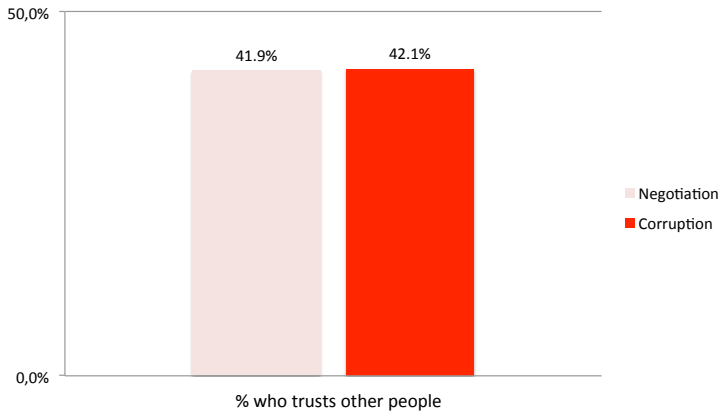


Figura 17 – Left Identified - Morally Loaded

F.E. 0.707; $\chi^2 = 0.686$), nor in the morally loaded condition (n = 119; F.E. 1.000; $\chi^2 = 0.985$), for this subsample.[22] The differences between the corruption treatment and the negotiation that we observed earlier, therefore, do not seem to come from the leftist participants.

Political identity: right

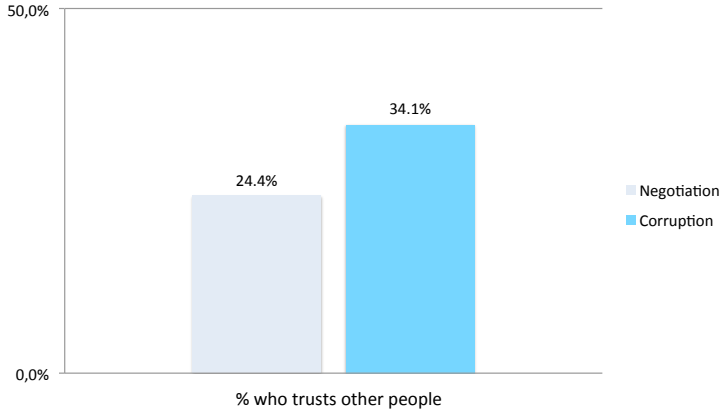


Figura 18 – Right Identified - Morally Neutral

Right-wing participants behave quite differently: in the morally neutral condition, the change in the form of approval of the bill, from negotiation to corruption, increased the proportion of those who claim to trust from 24.4% to 34.1%, but this result is not statistically significant (n = 82; F.E. 0.476; $\chi^2 = 0.332$). In the morally

[22] If we remove participants who declare a weak political identity from the sample, we find no change in the result.

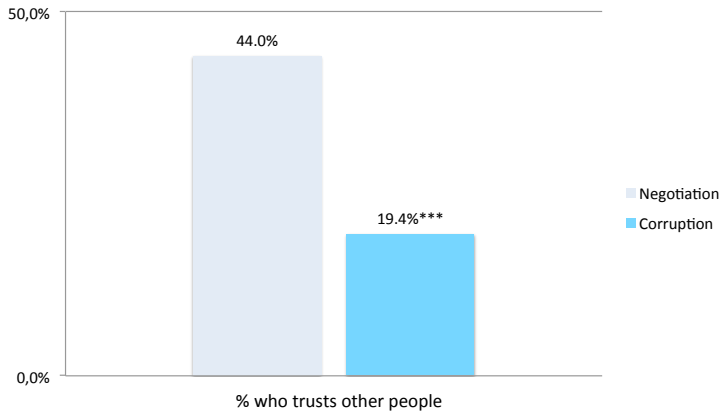


Figura 19 – Right Identified - Morally Loaded

loaded condition (n = 86; F.E. 0.022; $\chi^2 = 0.017$), we observed an expressive and significant reduction from 44% to 19.4% of those who claim to trust.

For right-wing participants, reading about political corruption in morally sensitive matters reduces confidence in people, but the same does not happen when the context of corruption is less sensitive.

Political identity: center

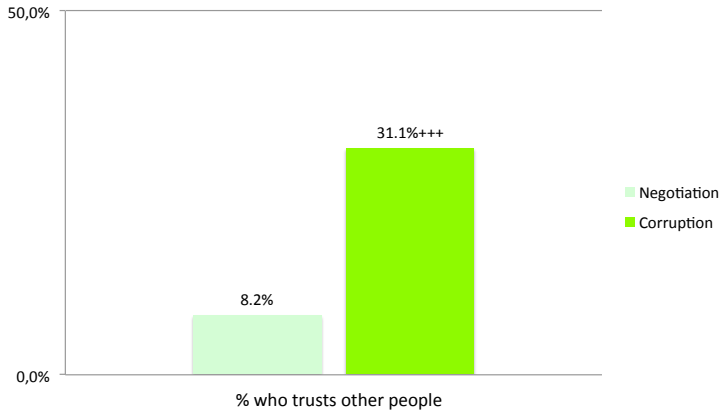


Figura 20 – Nonidentified - Morally Neutral

Center participants have a similar variation to those on the right. In the morally neutral condition, we found an increase, this time statistically significant, from 8.2% to 31.1% (n = 94; F.E. 0.008; $\chi^2 = 0.005$). In the morally loaded condition, we found a significant decrease in the proportion of those who trust from 39.5%

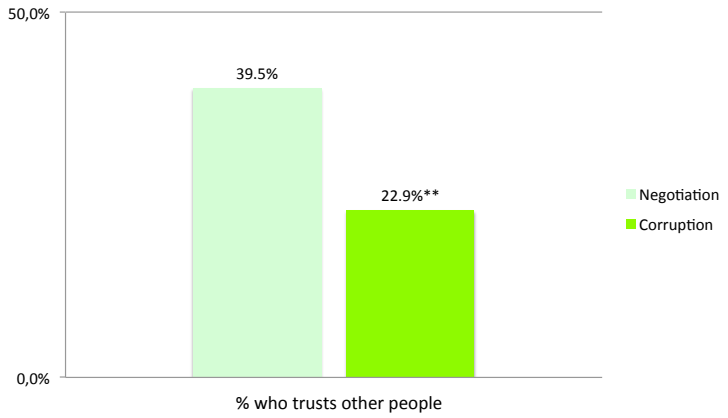


Figura 21 – Right Identified - Morally Loaded

to 22.9% between the negotiation and corruption group (n = 78; F.E. 0.147; χ^2 = 0.116).

As we have seen, the salience of corruption does not affect the proportion of left-wing participants who trust. Therefore, the differences we find between the negotiation treatment and the corruption treatment in the graphs 14 and 15 are due to the effects of the perception of corruption on the group of right and center participants.

Tables 7 and 8 below summarize the results presented in this subsection

Morally neutral	*Negotiation*	*Corruption*			
Political identity	*Trust – Yes (%)*	*Trust – Yes (%)*	*n*	*F.E.*	χ^2
Left	45.6	41.8	112	0.707	0.686
Center	8.2	31.1***	94	0.008	0.005
Right	24.4	34.1	82	0.476	0.332

Share of subjects (in percent) who reported trusting (Yes); one-sided binomial tests that corruption group is smaller (larger) than negotiation group.
*(+) = 10%-level, ** (++) = 5%-level, *** (+++) = 1%-level

Tabela 7 – Social Trust by identity - Morally neutral

Morally loaded	*Negotiation*	*Corruption*			
Political identity	*Trust – Yes (%)*	*Trust – Yes (%)*	*n*	*F.E.*	χ^2
Left	41.9	42.1	119	1.000	0.985
Center	39.5	22.9**	78	0.147	0.116
Right	44.0	19.4***	86	0.022	0.017

Share of subjects (in percent) who reported trusting (Yes); one-sided binomial tests that corruption group is smaller (larger) than negotiation group.
*(+) = 10%-level, ** (++) = 5%-level, *** (+++) = 1%-level

Tabela 8 – Social Trust by identity - Morally loaded

2.5.4 Discussion

This study documents that, in morally loaded contexts, the perception of corruption causes a decrease in social trust, but in more common contexts it causes an increase in social trust. And that the salience of corruption affects the social trust of right-wing and centrist participants, but not of left-wingers.

A possible explanation for our result comes from studies of updating and "consumption" of beliefs. EIL and RAO (2011) show that people tend to incorporate positive and negative information in their beliefs asymmetrically. Positive information is incorporated into beliefs following a Bayesian rule, while negative information is underestimated and diverges significantly from what would be expected of a Bayesian agent.[23] This asymmetry occurs through what psychologists call motivated beliefs, and occurs only when information is ambiguous and challenges beliefs loaded with value for the subject, such as those involving person's identity, morality, religion and politics.[24]

We can argue that the salience of corruption tends to diminish the confidence of people in general, regardless of political ideology. However, due to Brazil's recent history, with corruption scandals in left-wing governments and recent elections with campaigns associating corruption with left-wing politicians, it is possible that participants with this political identity may have, occasionally, incurred some form of motivated beliefs, therefore avoiding updating their beliefs with unwanted information.[25]

Another possible explanation for the differences in the behavior of the three groups can be constructed based on the Moral Foundations theory.[26] Graham and Haidt (2009) show that people from different political spectrum respond differently to different moral stimuli. American leftist liberals, for example, build their moral system almost entirely on two sets of fundamentals: Harm/care and Fairness/reciprocity, while conservatives use five sets: Harm/care, Fairness/reciprocity, Ingroup/loyalty, Authority/respect, and Purity/sanctity. Thus, it is possible that different moral

[23] Sharot and Garrett (2016) show that the processing of positive and negative information occurs in different regions of the brain.

[24] Bénabou and Tirole (2002) and Bénabou (2015) present decision models that treat beliefs as an asset or common good — "*which people consume, invest in, reap returns from, and produce, using the informational inputs they receive or have access to (. . .) with positive beliefs eliciting positive feelings, and thus having positive utility, and negative beliefs eliciting negative feelings, and having negative utility*". One of the implications of this model is that people find themselves motivated to ignore, discount and rationalize away unwanted News. See also Bénabou and Tirole (2016).

[25] To test whether the salience of corruption tends to affect the tendency of people in general to trust, one should replicate the experiment in other countries and other political contexts.

[26] See Haidt and Graham (2007) and Haidt and Joseph (2004).

foundations motivated and directed the behavior of different groups in our experiment.

It would not be right to draw a direct parallel between American liberals and conservatives and Brazilian leftists and right-wingers, but it is still possible to assume that the rightists are in some degree associated with Ingroup/loyalty norms and foundations. Suppose also that some participants associated political corruption of the text with the government in office in Brazil at the time of the research, although the treatment did not identify a political group and made reference to parliamentarians. The recent election of a right-wing politician, the strong campaign speech against corruption and the salience of corruption, may have sensitized the Ingroup/loyalty norms of the right-wing participants and, thus, fueled a sense of disloyalty due to the difference between campaign speeches and the salient practice.

These assumptions are purely speculative and it is beyond the scope of this paper to ascertain whether beliefs that cause disturbances in social trust are subject to motivated beliefs, or whether trust is a value associated with moral foundations shared by people of a particular political spectrum. What we can conclude from our experiments, however, is that (1) the political and institutional environment, in particular the corruption, causes disturbances in people's social trust; (2) the salience of corruption affects differently the beliefs of people with different political identities; (3) the context of corruption determines how it will affect trust.

2.5.5 Trust in politicians and in the democratic system

We repeated the above analyzes, for the same sample, under the same conditions and treatments, but now asking whether they can trust politicians in general, and whether they can trust the democratic system in Brazil.

In the exercise of trust in politicians in general, approximately 20% of the subjects declared that they could trust them, and we found no significant variation in this proportion between the negotiation and corruption groups, under any conditions, for any of the political identities. We also found no relevant variations in this proportion, either between the two conditions or between the different political identities.

In the analysis of confidence in the democratic system, approximately 33% of people said they trusted it. We also found no significant variations between treaties and controls, under any conditions, for any of the political identities (these results can be provided, if requested).

Treatment and conditions seem to affect the general trust, but not necessarily

the particularized trust of people in specific groups and institutions.

2.6 Conclusion

This chapter examines, through an extra-laboratory online experiment, whether the salience of political corruption can affect the social trust of individuals and whether this effect is mediated by the context in which corruption occurs and the individual's political identity. The results suggest that the perception of political corruption affects the social trust of individuals. This result, however, comes with some caveats: in a morally loaded context, corruption has adverse effects on social confidence, as we expected; however, in a morally neutral context, we find the salience of corruption associated with an increase in social trust. We conjecture that, in morally neutral context, the salience of dishonesty does not only bring injunctive norms of honesty to individuals, as in Gino, Ayal and Ariely (2009), but it can also raise awareness of cooperation norms, enhancing trust between strangers. In addition, in this sample of Brazilians, who were invited to participate in an online experiment through an online chat application, only those participants who claimed to have a right-wing and centrist political identity were affected by the prominence of political corruption. No significant effects were found for the left-wing participants.

The study shows that the costs of corruption go far beyond its effects on classic economic variables, such as misallocation of resources, poverty, concentration of income and poor quality of the public good. Corruption can affect subjects' preferences and decrease individuals' trust in society, with potentially damaging consequences in the long run. Political corruption can causes negative disturbances in people's social trust, distancing the expectation of trustworthiness from the real trustworthiness of society. This conclusion raises two important questions that need to be answered empirically in future research: (1) how slow and expensive for society the return to the level of social trust equilibrium can be; (2) and whether political corruption affects social trustworthiness. The second issue is particularly important because, if the proportion of trustworthy citizens in the population decreases, temporary shocks may become permanent. In an environment in which information spreads with great speed and breadth, such as our post-Internet society, (1) small variations in the perception of political corruption can have significant costs until they dissipate and (2) can leave permanent effects on the level of social trust.

If reading about political corruption in a simple reading comprehension test can affect people's social trust, It does not take much abstraction to infer that systemic corruption produces an indirect but high economic cost to society,

through the permanent reduction of social trust and trustworthiness. And that the fight against widespread corruption can bring gains to society in terms of trust, cooperation, efficiency in the provision of public goods, less inequality and more economic growth. Therefore, we believe that is pressing understand the effects of corruption on social beliefs and preferences, such as cooperation, altruism, trust and, above all, trustworthiness and the tendency to trust others in the long run.

Finally, it is worth highlighting the speed with which new forms of communication disseminate news, both false and true, which can impact the level of trust in society. These communication tools can both assist society in overseeing government management, the functioning of institutions and the provision of the public good, as well as serve to disseminate lies and distrust among the various actors in society. In view of the availability of powerful tools to shape society, it is up to us to better understand the potential risks and benefits of its good and bad use.

References

ABELER, J.; et al. Representative Evidence on Lying Costs. Journal of Public Economics, Vol. 113, 2014

AGHION, et al. Regulation and Distrust. The Quarterly Journal of Economics, Vol. 125 (3), 2010

AKERLOF, G.; and KRANTON, R. Economics and Identity. The Quarterly Journal of Economics, Vol. 115 (3), 2000

ALESINA, A. and GIULIANO, P. Family Ties and Political Participation. Journal of the European Economic Association, Vol. 9 (5), 2011

ALESINA, A. and GIULIANO, P. Culture and Institutions. Journal of Economic Literature, Vol. 53 (4), 2015

ALESINA, A.; and LA FERRARA, E. Who Trusts Others. Journal of Public Economics, Vol. 85, 2002

ALGAN, Y., and CAHUC, P. Civic Virtue and Labor Market Institutions. American Economic Journal - Macroeconomics, Vol. 1 (1), 2009

ALGAN, Y., and CAHUC, P. Inherited Trust and Growth. American Economic Review, Vol. 100 (5), 2010

ALGAN, Y.; CAHUC, P. Trust and Growth. Annual Reviews of Economics. vol. 5, 2013

ALGAN, Y., CAHUC, P., and SANGNIER, M. Trust and the Welfare State: The Twin Peaks Curve. The Economic Journal, Vol. 126 (593), 2016

ALGAN, Y., CAHUC, P., and SHEIFLER, A. Teaching Practices and Social Capital. American Economic Journal - Applied Economics, Vol. 5 (3), 2013

ALLINGHAM, M.; and SANDMO, A. Income Tax Evasion: A Theoretical Analysis. Journal of Public Economics, Vol. 1 (3–4), 1972

ANDERHUB, V.; MÜLLER, R.; and SCHMIDT, C. Design and Evaluation of an Economic Experiment via the Internet. Journal of Economic Behavior and Organization, Vol. 46 (2), 227-247, 2001

ANDVIG, J.; and MOENE, K. How Corruption May Corrupt. Journal of Economic Behavior and Organization, Vol. 13 (1), 1990

ARECHAR, A.; GÄCHTER, S.; and MOLLEMAN, L. Conducting Interactive Experiments Online. Experimental Economics, Vol. 21, 99–131, 2018

ARROW, K. Gifts and Exchanges. Philosophy and Public Affairs, Vol. 1 (4), 1972

BAICKER, K.; and STAIGER, D. Fiscal Shenanigans, Targeted Federal Health Care Funds, and Patient Mortality. The Quarterly Journal of Economics, Vol. 120 (1),

2005

BANERJEE, A.; et al. Corruption. NBER Working Paper No. 17968, National Bureau of Economic Research, 2012

BARKAN, R.; et al. The Pot Calling the Kettle Black: Distancing Response to Ethical Dissonance. Journal of Experimental Psychology: General, Vol. 141 (4), 2012

BASSARAK, C.; et al. What Provides Justification for Cheating — Producing or Observing Counterfactuals? Journal of Behavioral Decision Making, Vol. 30 (4), 2017

BAUMOL, W. Entrepreneurship: Productive, Unproductive, and Destructive. Journal of Political Economy, Vol. 98 (5), 1990

BECKER, G. Crime and Punishment: An Economic Approach. Journal of Political Economy, Vol. 76 (2), 1968

BELLEMARE, C. and KROGER, S. On Representative Social Capital. European Economic Review, Vol. 51 , 2007

BÉNABOU, R. The Economics of Motivated Beliefs. Revue d'économie politique, vol. 125 (5), 2015

BÉNABOU, R., and TIROLE, J. Self-Confidence and Personal Motivation. The Quarterly Journal of Economics, Vol. 117 (3), 2002

BÉNABOU, R.; and TIROLE, J. Intrinsic and Extrinsic Motivation. The Review of Economic Studies, Vol. 70 (3), 2003

BÉNABOU, R.; TIROLE, J. Mindful Economics: The Production, Consumption, and Value of Beliefs. Journal of Economic Perspectives, Vol. 30 (3), 2016

BERG, J. et. al. Trust, Reciprocity, and Social History. Games and Economic Behavior. Vol. 10 (1), 1995

BERTRAND, M.; et al. Obtaining a Driver's License in India: An Experimental Approach to Studying Corruption. The Quarterly Journal of Economics, Vol. 122 (4), 2007

BIDNER, C.; FRANCOIS, P. Cultivating Trust: Norms, Institutions and the Implications of Scale. The Economic Journal, Vol. 121 (555), 2011

BJØRNSKOV, C. Determinants of Generalized Trust: A Cross-Country Comparison. Public Choice, Vol. 130, 2006

BJØRNSKOV, C., and SVENDSEN, G. Does Social Trust Determine the Size of the Welfare State: Evidence Using Historical Identification. Public Choice, Vol. 157, 2013

BLOOM, N. et. al. The Organization of Firms Across Countries. The Quarterly Journal of Economics, Vol. 127 (4), 2012

BOTTAZZI, L. et. al. The Importance of Trust for Investment: Evidence from Venture Capital. The Review of Financial Studies, Vol. 29 (9), 2016

BUTLER, J. et. al. The Right Amount OF Trust. Journal of the European Economic

Association, Vol. 14 (5), 2016.
CADOT, O. Corruption As a Gamble. Journal of Public Economics, Vol. 33 (2), 1987
CAGE, J. and RUEDA, V. The Long-Term Effects of the Printing Press in sub-Saharan Africa. American Economic Journal: Applied Economics, Vol. 8 (3), 2016
CHARNESS, G.; GNEEZY, U.; and KUHN, M. Experimental Methods: Extra-Laboratory Experiments-Extending the Reach of Experimental Economics. Journal of Economic Behavior and Organization, Vol. 91, 93-100, 2013
CHAUDHURY, N.; et al. Missing in Action: Teacher and Health Worker Absence in Developing Countries. Journal of Economic Perspectives, Vol. 20 (1), 2006
CIALDINI, R.; et al. A Focus Theory of Normative Conduct: Recycling the Concept of Norms to Reduce Littering in Public Places. Journal of Personality and Social Psychology, Vol. 58 (6), 1990
CLOT, S.; et al. Smug Alert! Exploring Self-Licensing Behavior in a Cheating Game. Economics Letters, Vol. 123 (2), 2014
COHN, A.; et al. Business Culture and Dishonesty in the Banking Industry. Nature, Vol. 516, 2014
COHN, A.; et al. Bad Boys: How Criminal Identity Salience Affects Rule Violation. The Review of Economic Studies, Vol. 82, (4), 2015
COHN, A.; and MARÉCHAL, M. Laboratory Measure of Cheating Predicts School Misconduct. The Economic Journal, Vol. 128 (615), 2018
COJOC, D.; and STOIAN, A. Dishonesty and Charitable Behavior. Experimental Economics, vol. 17 (4), 2014
COLEMAN, J. Social Capital in the Creation of Human Capital. American Journal of Sociology, Vol. 94, 1988
DAI, Z.; et al. Cheating in the Lab Predicts Fraud in the Field: An Experiment in Public Transportation. Management Science, Articles in Advance, 2018
DE CREMER, D.; TYLER, T.; and DEN OUDEN, N. Managing Cooperation via Procedural Fairness: The Mediating Influence of Self-Other Merging. Journal of Economic Psychology, Vol. 26 (3), 2005
DHAMI, S. (2016) The Foundations of Behavioral Economic Analysis. Oxford University Press, 2016
DIXIT, A. Trade Expansion and Contract Enforcement. Journal of Political Economy, Vol. 111 (6), 2003
DOHMEN, T. et al. The Intergenerational Transmission of Risk and Trust Attitudes. The Review of Economic Studies, vol. 79 (2), 2012
DONG, B.; et al. Conditional Corruption. Journal of Economic Psychology, Vol. 33 (3), 2012

DURANTE, R. Risk Cooperation and the Economic Origin of Social Trust: An Empirical Investigation, 2010

EIL, D.; AND RAO, J. The Good News-Bad News Effect: Asymmetric Processing of Objective Information about Yourself. American Economic Journal, Vol. 3(2), 2011

ECKEL, C.; and GROSSMAN, P. Volunteers and Pseudo-Volunteers: The Effect of Recruitment Method in Dictator Experiments. Experimental Economics, Vol. 3, 107–120, 2000

ERAT, S. Avoiding Lying: The Case of Delegated Deception. Journal of Economic Behavior and Organization. Vol. 93, 2013

ERMISCH, J.; GAMBETTA, D. Do Strong Family Ties Inhibit Trust. Journal of Economic Behavior and Organization, Vol. 75 (3), 2008

FEHR, E. On The Economics and Biology of Trust. Journal of the European Economic Association, Vol. 7 (2–3), 2009

FEHR, E.; et al. Examining Trust and Trustworthiness by Integrating Behavioral Experiments into Representative Surveys, 2003

FEHR, E.; and HOFF, K. Tastes, Castes and Culture: the Influence of Society on Preferences. The Economic Journal, Vol. 121 (556), 2011

FERRAZ, C.; et al. Corrupting Learning: Evidence from Missing Federal Education Funds in Brazil. Journal of Public Economics, Vol. 96 (9–10), 2012

FISCHBACHER, U.; and FÖLLMI-HEUSI, F. Lies in Disguise — An Experimental Study on Cheating. Journal of the European Economic Association, Vol. 11 (3), 2013

FISMAN, R.; and SVENSSON, J. Are Corruption and Taxation Really Harmful to Growth? Firm Level Evidence. Journal of Development Economics Vol. 83, 2007

FRIEDMAN, E.; et al. Dodging the Grabbing Hand: The Determinants of Unofficial Activity in 69 Countries. Journal of Public Economics, Vol. 76 (3), 2000

GÄCHTER, S.; and SCHULZ, J. Intrinsic Honesty and the Prevalence of Rule Violations across Societies. Nature, Vol. 531 (7595), 2016

GIAVAZZI, F. et. al. Culture: Persistence and Evolution. Journal of Economic Growth, Vol. 24, 2019

GINO, F.; AYAL, S.; and ARIELY, D. Contagion and Differentiation in Unethical Behavior: The Effect of One Bad Apple on the Barrel. Psychological Science, Vol. 20 (3), 2009

GINO, F.; GU, J.; and ZHONG, C. Contagion or Restitution? When Bad Apples Can Motivate Ethical Behavior. Journal of Experimental Social Psychology, 45 (6), 2009

GLAESER, E.; et al. Measuring trust. Quarterly Journal of Economics, vol. 115 (3), 2000

GNEEZY, et al. Measuring Lying Aversion. Journal of Economic Behavior and

Organization, Vol. 93, 2013

GRAHAM, J.; HAIDT, J.; and Nosek, B. Liberals and Conservatives Rely on Different Sets of Moral Foundations. Journal of Personality and Social Psychology, Vol. 96 (5), 2009

GUISO, L., et al. The Role of Social Capital in Financial Development. The American Economic Review, Vol. 94 (3), 2004

GUISO, L. et. al. Cultural Biases in Economic Exchange. The Quarterly Journal of Economics, Vol. 124, (3), 2009

GUISO, L.; SAPIENZA, P.; and ZINGALES, L. Does Culture Affect Economic Outcomes. Journal of Economic Perspectives, Vol. (20), 2006

GUISO, L.; SAPIENZA, P.; and ZINGALES, L. Trusting the Stock Market. The Journal of Finance, Vol. 63 (6), 2008a

GUISO, L., SAPIENZA, P., and ZINGALES, L. Alfred Marshall Lecture: Social Capital as Good Culture. Journal of the European Economic Association, Vol. 6 (2-3), 2008b

GUPTA, S.; et al. Does Corruption Affect Income Inequality and Poverty. Economics of Governance, Vol. 3, 2002

HAIDT, J.; GRAHAM, J. When Morality Opposes Justice: Conservatives Have Moral Intuitions that Liberals may not Recognize. Social Justice Research, Vol. 20 (1), 2007

HAIDT, J.; JOSEPH, C. Intuitive Ethics: How Innately Prepared Intuitions Generate Culturally Variable Virtues. Daedalus Vol. 133 (4). 2004

HANNA, R.; and WANG, S. Dishonesty and Selection into Public Service: Evidence from India. American Economic Journal: Economic Policy, Vol. 9 (3), 2017

HAO, LI; and HOUSER, D. Perceptions, Intentions, and Cheating. Journal of Economic Behavior and Organization. Vol. 133, 2017

HARDIN, R. Trust. Cambridge, UK: Polity, 2006

HELLIWELL, J.; PUTNAM, R. The Social Context of Well-Being. Philos Trans R Soc Lond B Biol Sci. Vol. 359 (1449), 2004

HERGUEUX, J.; and JACQUEMET, N. Social Preferences in the Online Laboratory: A Randomized Experiment. Experimental Economics, Vol. 18, 251-283, 2015

HILBIG, B; and HESSLER, C. What Lies Beneath: How the Distance Between Truth and Lie Drives Dishonesty. Journal of Experimental Social Psychology, Vol. 49 (2), 2013

HOLM, H.; DANIELSON, A. Tropic Trust Versus Nordic Trust: Experimental Evidence From Tanzania And Sweden. The Economic Journal, Vol. 115 (503), 2005.pdf

HOUSER, D.; et al. Fairness and Cheating. European Economic Review, Vol. 56 (8), 2012

HUNT, J. How Corruption Hits People When They Are Down. Journal of Development Economics, Vol. 84 (2), 2007,

HUNTINGTON, S. Political Order in Changing Societies. New Haven: Yale University Press, 1968

HURKENS, S.; and KARTIK, N. Would I Lie to You? On Social Preferences and Lying Aversion. Experimental Economics. Vol. 12, 2009

IACONO, S. Does Community Social Embeddedness Promote Generalized Trust: An Experimental Test of the Spillover Effect. Social Sicence Research, Vol. 73, 2018

JACOBSEN, C.; and PIOVESAN, M. Tax Me if You Can: An Artifactual Field Experiment on Dishonesty. Journal of Economic Behavior and Organization, Vol. 124, 2016

JIANG, T. Cheating in Mind Games: The Subtlety of Rules Matters. Journal of Economic Behavior and Organization. Vol. 93, 2013

JOHNSON, N. et al. Corruption is Bad for Growth (Even in the United States). Public Choice, Vol. 147, (3/4), 2011

JOHNSON, N.; MISLIN, A. How Much Should We Trust the World Values Survey Trust Question. Economics Letters, Vol. 116, 2012

JORDAN, J.; et al. Striving for the Moral Self: The Effects of Recalling Past Moral Actions on Future Moral Behavior. Personality and Social Psychology Bulletin, Vol. 37 (5), 2011

JUSTESEN, M.; and BJØRNSKOV, C. (2014) Exploiting the Poor: Bureaucratic Corruption and Poverty in Africa. World Development, Vol. 58 (C), 2014

KAJACKAITE, A.; GNEEZY, U. Incentives and Cheating. Games and Economic Behavior, Vol. 102, 2017

KEIZER, K.; et al. The Spreading of Disorder. Science, Vol. 322 (5908), 2008

KNACK, S. and KEEFER, P. Does Social Capital Have an Economic Payoff: A Cross-Country Investigation. The Quarterly Journal of Economics, Vol. 112 (4), 1997

KNACK, S., and ZAK, P. Building Trust: Public Policy, Interpersonal Trust, and Economic Development. Supreme Court Economic Review, Vol. 10, 2003

KÖBIS, N. et al. Who Doesn't? — The Impact of Descriptive Norms on Corruption. PLoS ONE, Vol. 10 (6), 2015

KRÖLL, M.; and RUSTAGI, D. Shades of Dishonesty and Cheating in Informal Milk Markets in India. SAFE Working Paper Series, No. 134, 2016

LA PORTA, R.; et. al. Trust in Large Organizations. The American Economic Review, Vol. 87 (2), 1997

LAZZARINI, S. et. al. Measuring Trust: An Experiment in Brazil. Working Paper, IBMEC Business School, 2003

LEFF, N. Economic Development Through Bureaucratic Corruption. American

Behavioral Scientist, Vol. 8 (3), 1964
LEVI, M. The Transformation of a Skeptic: What Nonexperimentalists Can Learn from Experimentalists. In: Ostrom E, Walker J. Trust and Reciprocity. New York: Russell Sage Found, pp. 373–80, 2003
LEVITT, S. White-Collar Crime Writ Small: A Case Study of Bagels, Donuts, and the Honor System. The American Economic Review, Vol. 96 (2), 2006
LEWIS, A.; et al. Drawing the Line Somewhere: An Experimental Study of Moral Compromise. Journal of Economic Psychology. Vol. 33 (4), 2012
MANN, H.; et al. Cut From the Same Cloth: Similarly Dishonest Individuals Across Countries. Journal of Cross-Cultural Psychology, Vol. 47 (6), 2016
MAURO, P. Corruption and Growth. The Quarterly Journal of Economics, Vol. 110 (3), 1995
MAURO, P. Corruption and the Composition of Government Expenditure. Journal of Public Economics, Vol. 69 (2), 1998
MAZAR, N.; AMIR, O.; and ARIELY, D. The Dishonesty of Honest People: A Theory of Self-Concept Maintenance. Journal of Marketing Research, Vol. 45 (6), 2008
MAZAR, N.; and ZHONG, C. Do Green Products Make Us Better People? Psychological Science, Vol. 21 (4), 2010
MURPHY, K.; et al. The Allocation of Talent: Implications for Growth. The Quarterly Journal of Economics, Vol. 106 (2), 1991
MURPHY, K.; et al. Why Is Rent-Seeking So Costly to Growth? The American Economic Review, Vol. 83 (2), Papers and Proceedings of the Hundred and Fifth Annual Meeting of the American Economic Association, 1993
NANNESTAD, P. What Have We Learned About Generalized Trust, If Anything. Annual Review of Political Science, Vol. 11, 2008
NANNESTAD, P. et. al. Do Institutions or Culture Determine the Level of Social Trust: The Natural Experiment of Migration from Non western to Western Countries. Journal of Ethnic and Migration Studies, Vol. 40 (4), 2014
NUNN, N.; WANTCHEKO, L. The Slave Trade and the Origins of Mistrust in Africa. American Economic Review, Vol. 101 (7), 2011
OLKEN, B. Corruption and the Costs of Redistribution: Micro Evidence from Indonesia. Journal of Public Economics, Vol. 90 (4–5), 2006
PADRÓ-I-MIQUEL, G. et. al. Making Democracy Work: Culture, Social Capital and Elections in China. NBER, Working Paper 21058, 2015
PASCUAL-EZAMA, D.; et al. Context-Dependent Cheating: Experimental Evidence from 16 Countries. Journal of Economic Behavior and Organization, Vol. 116, 2015
PAUNOV, C. Corruptions Asymmetric Impacts on Firm Innovation. Journal of

Development Economics, Vol. 118 (C), 2016
PITTARELLO, A.; et al. Justifications Shape Ethical Blind Spots. Psychological Science, Vol. 26 (6), 2015
PLONER, M. and; REGNER, T. Self-Image and Moral Balancing: An Experimental Analysis. Journal of Economic Behavior and Organization, Vol. 93, 2013
POTTERS, J.; and STOOP, J. Do Cheaters in the Lab Also Cheat in the Field. European Economic Review, Vol. 87 (C), 2016
PRUCKNER, G.; and SAUSGRUBER, R. Honesty on the Streets: A Field Study on Newspaper Purchasing. Journal of the European Economic Association, Vol. 11 (3), 2013
REINIKKA, R.; and SVENSSON, J. Local Capture: Evidence from a Central Government Transfer Program in Uganda. The Quarterly Journal of Economics, Vol. 119 (2), 2004
REINIKKA, R.; and SVENSSON, J. Fighting Corruption to Improve Schooling: Evidence from a Newspaper Campaign in Uganda. Journal of the European Economic Association, Vol. 3 (2-3), 2005
ROTHSTEIN, B.; EEK, D. Political Corruption and Social Trust: An Experimental Approach. Rationality and Society, Vol. 21 (1), 2009
SAPIENZA, P.; et. al. Understanding Trust. The Economic Journal, Vol. 123 (573), 2013
SCHECHTER, L. Traditional Trust Measurement and the Risk Confound: An Experiment in Rural Paraguay. Journal of Economic Behavior and Organization, Vol. 62 (2), 2007
SCHURR, A.; and RITOV, I. Winning a Competition Predicts Dishonest Behavior. PNAS, Vol. 113 (7), 2016
SELIGSON, M. The Impact of Corruption on Regime Legitimacy: A Comparative Study of Four Latin American Countries. The Journal of Politics, Vol. 64 (2), 2002
SEQUEIRA, S. Chapter 6 Advances in Measuring Corruption in the Field. In: New Advances in Experimental Research on Corruption. Published online: 2015
SHALVI, S.; el at. Justified Ethicality: Observing Desired Counterfactuals Modifies Ethical Perceptions and Behavior. Organizational Behavior and Human Decision Processes, Vol. 115 (2), 2011a
SHALVI, S.; el at. Ethical Manoeuvring: Why People Avoid Both Major and Minor Lies. British Journal of Management, Vol. 22 (1), 2011b
SHALVI, S.; el at. Honesty Requires Time (and Lack of Justifications). Psychological Science, Vol. 23 (10), 2012
SHALVI, S. et al. Self-Serving Justifications: Doing Wrong and Feeling Moral. Current Directions in Psychological Science, Vol. 24 (2), 2015

SHAROT, T.; and GARRETT, N. Forming Beliefs: Why Valence Matters. Trends in Cognitive Sciences, Vol. 20 (1), 2016

SHLEIFER, A.; and VISHNY, R. Corruption. The Quarterly Journal of Economics, Vol. 108 (3), 1993

STIGLER, G.; and BECKER, G. De Gustibus Non Est Disputandum. The American Economic Review, Vol. 67 (2), 1977

TABELLINI, G. The Scope of Cooperation: Values and Incentives. The Quarterly Journal of Economics, VOL. 123 (3), 2008

TABELLINI, G. Culture and Institutions: Economic Development in the Regions of Europe. Journal of the European Economic Association, Vol. 8 (4), 2010

TAJFEL, H.; and TURNER, J. An Integrative Theory of Intergroup Conflict. In W.G. Austin and S. Worchel, The Social Psychology of Intergroup Relations. Pacific Grove, CA: Brooks/Cole, 1979

USLANER, E. Trust and Corruption Revisited: How and Why Trust and Corruption Shape Each Other. Qual Quant, Vol. 47, 2013

UTIKAL, V.; and FISCHBACHER, U. Disadvantageous Lies in Individual Decisions. Journal of Economic Behavior and Organization, Vol. 85, 2013

WEISEL, O.; and SHALVI, S. The Collaborative Roots of Corruption. PNAS, Vol. 112 (34), 2015

WILSON, J.; and KELLING, G. Broken Windows: The Police and Neighborhood Safety. The Atlantic Magazine, March, 1982

WILTERMUTH, S. Cheating More When the Spoils Are Split. Organizational Behavior and Human Decision Processes, Vol. 115 (2), 2011

XU, G.; and YANO, G. How Does Anti-corruption Affect Corporate Innovation? Evidence from Recent Anti-corruption Efforts in China. Journal of Comparative Economics, Vol. 45 (3), 2017

ZAK, P. and KNACK, S. Trust and Growth. The Economic Journal, Vol. 111 (470), 2001

ZHOU, H.; and FISHBACH, A. The Pitfall of Experimenting on the Web: How Unattended Selective Attrition Leads to Surprising (Yet False) Research Conclusions. Journal of Personality and Social Psychology, Vol. 111 (4), 493-504, 2016

Appendix A

Research Instrument

V.F. Política e Confiança

Bem-vindo à pesquisa Identidade Política, Comportamento e Confiança

Caro participante,

Esta pesquisa contém testes e questionários, e levará menos de 4 minutos para ser respondida. Com sua participação, você fará uma contribuição importante para o estudo.

Suas respostas e opiniões pessoais são de grande interesse para nós. Assim, pedimos que você responda todas as perguntas com bastante atenção.

Muito obrigado por participar!

V.F. Política e Confiança

Termo de Consentimento Livre e Esclarecido

Somos pesquisadores do Departamento de Economia da Universidade de Brasília e estamos lhe convidando para participar de um estudo sobre Identidade Política, Comportamento e Confiança.

Sua participação não implica em riscos para você. As respostas serão tratadas com o mais rigoroso sigilo e avaliadas de forma anônima.
Se você tiver qualquer dúvida pode contatar o pesquisador responsável através do e-mail: 160042771@aluno.unb.br

O estudo estará disponível aos participantes que solicitarem pelo e-mail acima, podendo ser publicado posteriormente na comunidade científica.

Sua participação é voluntária e livre de qualquer remuneração ou benefício. Você é livre para recusar-se a participar, retirar seu consentimento ou interromper sua participação a qualquer momento.

Este projeto foi revisado e aprovado pelo Comitê de Ética em Pesquisa em Ciências Humanas e Sociais da Universidade de Brasília - CEP/CHS. As informações com relação aos direitos do sujeito da pesquisa podem ser obtidos através do e-mail do CEP/CHS cep_chs@unb.br, ou pelo telefone do CEP/CHS (61) 3107-1592.

1. Declaro que li o Termo de Consentimento Livre e Esclarecido acima e:

☐ Aceito participar da pesquisa

2. Para participar desta pesquisa é obrigatório ter no mínimo 18 anos

☐ Declaro que tenho 18 anos ou mais

3. Informe seu e-mail para receber uma cópia deste Termo de Consentimento Livre e Esclarecido:

2

V.F. Política e Confiança

Dados demográficos

4. Qual é a sua idade?

5. Qual é o seu sexo?

- Masculino
- Feminino

6. Qual é o nível de escolaridade da sua mãe?

- Sem escolaridade
- Ensino fundamental (primeiro grau) incompleto
- Ensino fundamental (primeiro grau) completo
- Ensino médio (segundo grau) incompleto
- Ensino médio (segundo grau) completo
- Superior incompleto
- Superior completo
- Pós graduação
- Não sei informar

7. Você se interessa por política?

- Tenho muito interesse
- Tenho algum interesse
- Tenho pouco interesse
- Não tenho nenhum interesse

8. Como você se definiria politicamente?

- ◯ Muito de esquerda
- ◯ De esquerda
- ◯ Um pouco de esquerda
- ◯ Nem de esquerda nem direita
- ◯ Um pouco de direita
- ◯ De direita
- ◯ Muito de direita

V.F. Política e Confiança

Lógica

9. A figura abaixo foi desenhada em cartolina e será dobrada de modo a formar um cubo.

Nesse cubo, a face oposta à face X é

- A
- B
- C
- D
- E

10. Quantos cubos há na figura abaixo?

- 6
- 7
- 8
- 9
- 10

V.F. Política e Confiança

Interpretação de texto

Assinale V (Verdadeiro) ou F (Falso):

A 15.0% De acordo com um texto que circula online, após o pagamento de propina aos deputados do Congresso Nacional, uma proposta que permite a instalação de free shops em cidades localizadas na fronteira com outros países foi aprovada na Câmara dos Deputados. A proposta agora segue para o Senado Federal.

B 15.0% De acordo com um texto que circula online, após intensa negociação entre os deputados no Congresso Nacional, uma proposta que permite a instalação de free shops em cidades localizadas na fronteira com outros países foi aprovada na Câmara dos Deputados. A proposta agora segue para o Senado Federal.

C 20.0% De acordo com um texto que circula online, após o pagamento de propina aos deputados dos principais partidos de esquerda do Congresso Nacional, uma proposta que permite a instalação de free shops em cidades localizadas na fronteira com outros países foi aprovada na Câmara dos Deputados. A proposta agora segue para o Senado Federal.

D 15.0% De acordo com um texto que circula online, após intensa negociação entre os deputados no Congresso Nacional, uma proposta que permite a aquisição com mais rapidez de equipamentos médicos e hospitalares para tratar pacientes com covid-19 foi aprovada na Câmara dos Deputados. A proposta agora segue para o Senado Federal.

E 15.0% De acordo com um texto que circula online, após o pagamento de propina aos deputados do Congresso Nacional, uma proposta que permite a aquisição com mais rapidez de equipamentos médicos e hospitalares para tratar pacientes com covid-19 foi aprovada na Câmara dos Deputados. A proposta agora segue para o Senado Federal.

F 20.0% De acordo com um texto que circula online, após o pagamento de propina aos deputados dos principais partidos de esquerda do Congresso Nacional, uma proposta que permite a aquisição com mais rapidez de equipamentos médicos e hospitalares para tratar pacientes com covid-19 foi aprovada na Câmara dos Deputados. A proposta agora segue para o Senado Federal.

11. A proposta foi aprovada na Câmara dos Deputado e seguiu para sanção presidencial sem passar pelo Senado.

- ◯ Verdadeiro
- ◯ Falso

V.F. Política e Confiança

Questionário

Indique o quanto você concorda com as afirmações abaixo:

12. De um modo geral, você diria que a maioria das pessoas pode ser confiável ou que você precisa ter muito cuidado ao lidar com as pessoas?

- ◯ A maioria das pessoas pode ser confiável
- ◯ Precisa ter muito cuidado

13. Há muitos políticos confiáveis no Brasil

- ◯ Discordo totalmente
- ◯ Discordo
- ◯ Discordo um pouco
- ◯ Concordo um pouco
- ◯ Concordo
- ◯ Concordo totalmente

14. O sistema político democrático funciona bem no Brasil

- ◯ Discordo totalmente
- ◯ Discordo
- ◯ Discordo um pouco
- ◯ Concordo um pouco
- ◯ Concordo
- ◯ Concordo totalmente

V.F. Política e Confiança

Agradecimento

Como reconhecimento à contribuição de todos, sortearemos entre os participantes 10 vale compras para o site americanas.com, no valor de 50 reais cada um.

O sorteio será efetuado por meio de uma planilha do software Excel. Os e-mails dos participantes serão listados na planilha, em seguida o próprio software selecionará, por meio da função "aleatório", os dez e-mails que receberão os vale compras.

Cada participante poderá ter seu e-mail colocado até seis vezes na nossa "urna eletrônica" (planilha), aumentando as chances de ganhar um vale compra. Para saber quantas vezes seu e-mail será inserido na planilha, pegue um dado de 6 faces e role-o. O número que cair será o número de vezes que seu endereço eletrônico constará na "urna". Caso não tenha nenhum dado por perto, utilize uma das inúmeras opções de dados virtuais disponíveis na internet,

como o dado virtual do Google

ou o dado virtual do PiliApp.

O sorteio ocorrerá no dia 20 de julho, podendo ser prorrogado por até duas semanas, caso o número mínimo de participantes para uma pesquisa estatisticamente relevante não tenha sido atingido.

Os vencedores serão contactados por e-mail e o resultado será disponibilizado no site da pesquisa.

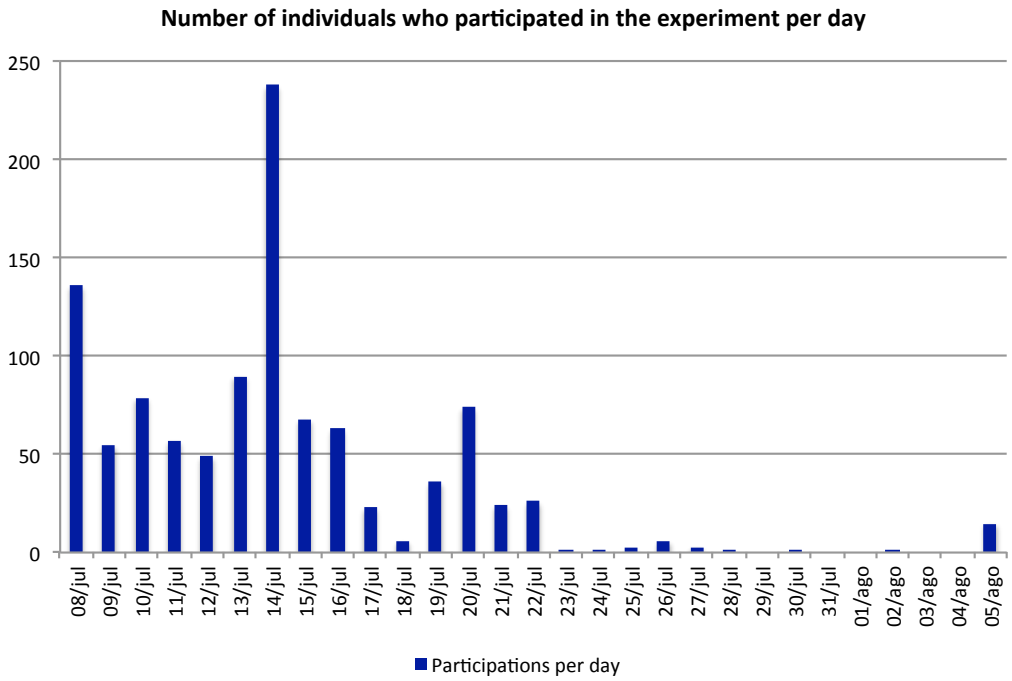
Se você tiver qualquer dúvida pode contatar o pesquisador responsável através do e-mail: 160042771@aluno.unb.br

15. Indique aqui o número que tirou ao rolar o dado. Este será o número de vezes que seu e-mail aparecerá na "urna"

- [ ] 1
- [ ] 2
- [ ] 3
- [ ] 4
- [ ] 5
- [ ] 6

8

Appendix B


Number of individuals who participated in the experiment per day
250
200
150
100
50
0
08/jul
09/jul
10/jul
11/jul
12/jul
13/jul
14/jul
15/jul
16/jul
17/jul
18/jul
19/jul
20/jul
21/jul
22/jul
23/jul
24/jul
25/jul
26/jul
27/jul
28/jul
29/jul
30/jul
31/jul
01/ago
02/ago
03/ago
04/ago
05/ago
Participations per day