

***ESCOLA BRASILEIRA DE ADMINISTRAÇÃO PÚBLICA E DE EMPRESAS***  
***MESTRADO EM ADMINISTRAÇÃO***

*Urszula Gabriela Lagowska*

***Title:***

**Show me the money and I will bring you the head. Evaluation of the effects of self-interest and anger on whistleblowing.**

***Academic Advisor:***

Prof. Filipe João Bera de Azevedo Sobral

**URSZULA GABRIELA LAGOWSKA**

**"SHOW ME THE MONEY AND I WILL BRING YOU THE HEAD.  
EVALUATION OF THE EFFECTS OF SELF-INTEREST AND ANGER ON  
WHISTLEBLOWING"**

Dissertação apresentada ao Curso de Mestrado em Administração da Escola Brasileira de Administração Pública e de Empresas para obtenção do grau de Mestre em Administração.

Data da defesa: 05/02/2016

Aprovada em:


**ASSINATURA DOS MEMBROS DA BANCA EXAMINADORA**

A handwritten signature in blue ink, reading 'Filipe João Bera de Azevedo Sobral', is written over a horizontal line.

**Filipe João Bera de Azevedo Sobral**  
Orientador (a)

A handwritten signature in blue ink, reading 'Eduardo Bittencourt Andrade', is written over a horizontal line.

**Eduardo Bittencourt Andrade**

A handwritten signature in blue ink, reading 'Bruno Felix Von Borell de Araujo', is written over a horizontal line.

**Bruno Felix Von Borell de Araujo**

Lagowska, Urszula Gabriela

Show me the money and I will bring you the head: evaluation of the effects of self-interest and anger on whistleblowing / Urszula Gabriela Lagowska. – 2016. 47 f.

Dissertação (mestrado) - Escola Brasileira de Administração Pública e de Empresas, Centro de Formação Acadêmica e Pesquisa.

Orientador: Filipe João Bera de Azevedo Sobral.

Inclui bibliografia.

1. Comportamento organizacional. 2. Interesse pessoal. 3. Ética empresarial. 4. Processo decisório. 5. Denúncia (Direito penal). I. Sobral, Filipe. II. Escola Brasileira de Administração Pública e de Empresas. Centro de Formação Acadêmica e Pesquisa. III. Título.

CDD – 658.406

## **Acknowledgements**

First and foremost, I would like to express my sincere gratitude to my advisor, Prof. Filipe Sobral for his encouragement, expertise, understanding, and patience. I appreciate his vast knowledge and skills in many areas, as well as his continuous support, which helped me not only to choose whistleblowing as my research topic, but also to overcome many obstacles, and finish this thesis.

Secondly, I would like to thank Prof. Eduardo Andrade whose thought-provoking comments and experience in experimental research helped me to plan and conduct the lab-based study presented in this thesis. I appreciate the fact that he has always been able to find time for me in his busy schedule and has encouraged me to follow high research standards.

I am also grateful to Juliana Mansur, mainly for helping me with experimental data collection, but also for generously sharing her experience with me. Without her energy, support, and encouragement running the lab-based study would have been impossible.

Furthermore, I would like to acknowledge the professors working at FGV-EBAPE, especially Prof. Rafael Goldszmidt who taught me everything I know about quantitative data analysis. I am also thankful to my fellow students from FGV EBAPE and all of my Brazilian friends for their support, friendship, and for making my arrival to Rio de Janeiro so much easier.

Finally, I would like to thank my family for their immense love, support, and encouragement during the time of crisis. I dedicate this thesis to them.

## **Introduction**

A whistleblower or a snitch? A hero or a villain? The image of a person who decides to report a misconduct in the society is still controversial and situation dependent. Or is it? Academics and practitioners do not seem to have any doubt concerning whistleblower's vital role in uncovering some of the biggest crimes, preventing image damages, and saving millions of dollars for the organizations (Association of Certified Fraud Examiners, 2014, Near and Miceli, 2015). It has been estimated that in the Department of Homeland Security alone, whistleblowers were able to generate \$100 million in annual cost savings (Lerner, 2015).

Though many of those who decided to report wrongdoings in their organizations were able to tell their stories (e.g. Bamford, 2014, Armenakis 2004), it is fair to say that there is still much left to uncover regarding the whole process which begins the moment a person labels an action as morally incorrect, up to the point where he or she shares this information with a competent organ able to take a corrective action (Miceli et al., 2008).

One of the first-found predictors of whistleblowing behavior were related to the individual's moral attitude and beliefs (Miceli et al., 1991). However, there is also some evidence to suggest that people decide to disclose morally questionable acts in their organizations because they hope to receive some kind of financial compensation (e.g. Dyck et al., 2007, Dworkin and Brown, 2012). That in turn, could imply that the motives behind whistleblowing may not be entirely altruistic and justice related.

More specifically, it has been found that bounty rewards offered to whistleblowers have significant influence on employee's decision to report corporate fraud (Dyck et al., 2007). In fact, it has been estimated that ever since the US Congress raised both fines number per incident and rewards size, the number of fraud claims increased by twenty times (Dworkin and Brown, 2012).

Building on this evidence, the paper aims to test the hypothesis which claims that people who attribute wrongdoing to the cause of their own financial loss (high self-interest) are more likely to report the act and its perpetrator to responsible authority as opposed to those individuals who do not lose money as a consequence of this wrongdoing.

Moreover, some of the authors who have attempted to describe the whistleblowing behavior, have proposed that emotions experienced by the observer should be included in the decision-making model as they are entangled with cost-benefit analysis (Edwards et al., 2009). More specifically, they can arise from individual's perceptions concerning the relative power of the perpetrator within the

organization, and/or they can mediate the relationship between the cost-benefit analysis and the decision to denounce (Gundlach et al., 2003).

As identified and noted so far in the literature, the emotions experienced by the individuals exposed to a wrongdoing, and who are aware of there being an option of denounce it, are mainly fear, anxiety, regret and anger (Gundlach et al., 2003 Henik, 2008). The last one, anger, has been proven consistently to positively influence one's decision to blow the whistle (e.g. Hollings, 2014, Henik 2015) and it is known to be elicited by either organizational inaction regarding previous cases of reported wrongdoing, moral outrage (Henik, 2015), or the perpetrator himself (Gundlach et al., 2003). Yet, so far it has not been examined whether the feeling of anger can also arise if the observer attributes wrongdoing to his or her financial loss, or in other words, when the self-interest of the employee is at stake. In the present paper this anger elicitor is tested along with its influence on whistleblowing rate.

A significant limitation to the current state of art of whistleblowing research is also the fact that all the knowledge gathered so far comes mostly from case studies (e.g. Hollings, 2013) and surveys (e.g. Miceli and Near, 2013), as well as experiments based on imaginary scenarios (e.g. Gundlach et al., 2006). The drawback of the first group of studies is that they hardly prove causality (Wilkinson et al., 1999), while the experimental vignettes are only able to measure behavioral intentions, which as we know, may not always be sufficient predictors of the actual behavior in a real situation (Mesmer-Magnus and Viswesvaran, 2005). Moreover, results coming from such studies may be marred with social desirability bias due to the topic's nature (Burton and Near, 1995).

The present thesis is, thus, an attempt to fill this methodological gap by presenting the results of a lab-based experimental procedure that enabled observation of individual whistleblowing behavior in a group environment and manipulation of two independent factors, which were expected to promote whistleblowing: direct financial impact and anonymity.

In sum, the paper aims to contribute to the literature in three ways. First, it provides preliminary evidence that the wrongdoing linked with individual financial loss leads to higher whistleblowing rate. Secondly, it shows how the experience of anger is related to the higher likelihood to report the wrongdoer but only if the wrongful act is perceived as a cause of one's financial loss. Finally, the paper establishes first steps for the future development of an experimental procedure that would enable to predict, manipulate and measure whistleblowing behavior in the lab environment.

## **Theoretical background**

### **Financial incentives, self-interest and whistleblowing**

The tendency to see whistleblowing as a prosocial act (Brief and Motowidlo, 1986) driven by high ethical standards (e.g. Barnett, et al., 1996) has been dominant in the literature. In consequence, the image of a whistleblower which has emerged is that of a hero or a saint. However, given the seriousness of consequences, the whistleblowers need to take into consideration before reporting the wrongdoing, it is reasonable to consider the benefits one hopes to achieve (or loses one wants to avoid) once the act has been denounced (Miceli et al., 2008).

Prior research has established that some of those benefits may have psychological character. For instance, by denouncing the wrongdoing and helping to correct the act, a whistleblower is able to gain profit from an improved atmosphere in the workplace (Miceli et al., 2008). However, sometimes the benefits may also take a form of financial rewards, like those offered to the whistleblowers who help to prevent big financial losses by reporting fraud. Even though not popular in the private sector, such strategies are often offered by public institutions, where a whistleblower can count on receiving even up to 30% of recovered funds (Callahan and Dworkin, 1992, Dodd–Frank Act, 2010). In any case, it is fair to assume that the decision to report the wrongdoing is always, to some extent, related to one's self-interest.

In the economics literature, self-interest has long been recognized as a driver of rational behavior where it is understood as acting with an intention to optimize or maximize individual's outcome (e.g. Diekmann et al., 1997). Self-interest is also present in many behavioral theories (Miller, 1999), and has even been shown helpful in explaining such altruistic acts as donation (Briers et al., 2007).

Yet in the context of organizational behavior literature, it is a concept associated with rather negative connotations. For instance, it is known to inhibit helping behavior between units (e.g. Grant and Patil, 2012) and it is often linked with moral transgressions or moral disengagement (Kish-Gephart et al., 2014). Moreover, when observed in a leader, it translates into higher turnover intentions and decreased commitment and cooperation among followers (Decoster et al., 2014). Finally, self-interest is perceived as so dominant in the workplace environment that it makes employees suspicious of the good intentions of others (Critcher and Dunning, 2011).

To our knowledge only one paper so far, however, has examined the effect of self-interest on the likelihood to report the wrongful act. In the study by Jones and colleagues (2014), the authors distributed surveys with an imaginary scenario among students who were then asked whether they

would report unfair grading policies employed by a faculty member depending whether they belonged to the group that benefitted from them. The results did not confirm significant effect of self-interest, and thus it was concluded that from all the variables in the model, only anger and moral outrage were able to promote whistleblowing behavior (Jones et al., 2014) as it had been already proposed in previous theoretical models (Henik, 2008, Gundlach, 2003).

Nonetheless, the study cited above has several limitations. First, it has examined an effect of a wrongdoing committed by someone of a higher status than the observer. In such cases the observer (a student) may consider himself less powerful in the organization and thus the feeling of anger among the participants might have been muted by the sense of powerlessness (e.g. Gundlach et al., 2003). It is possible then that the impact of a wrongdoing committed by a fellow student could have produced a different result.

Another issue that should be addressed is that the self-interest measured in the study was not hypothesized to promote whistleblowing behavior. On the contrary, the authors expected the students to not take any action if they were part of the group receiving test questions before the exam (Jones et al., 2014). The study, thus, does not provide answer to the question whether individuals acting in defense of their self-interest would be more willing to report the wrongdoing than their counterparts who are not personally affected would. The authors were only testing whether their perceived self-interest would make them less (not more) prone to denounce.

The purpose of the present paper is to fill this gap. What we hope to test is whether high self-interest (financial loss) is positively related to the higher likelihood of denouncing the wrongful act and its author (Hypothesis 1).

### **Whistleblowing and emotions: anger**

The most common definition of whistleblowing describes it as ‘the disclosure by organizational members (former or current) of illegal, immoral, or illegitimate practices under the control of their employers, to persons or organizations that may be able to effect action’ (Near and Miceli, 1985). Research shows that among many different factors influencing the decision to blow the whistle, emotions are its strong predictors (Gundlach, 2008, Hollings, 2013), yet their inclusion in the popular models of whistleblowing models happened only after the affective revolution in the organizational studies (Edwards et al., 2009).

In Gundlach and colleagues’ 2003 Social Information Processing (SIP) model of Whistle-Blowing decisions, the authors propose that cost-benefit analysis and attributions of responsibility of



the wrongdoer have strong impact on the emotions of employee who has observed the wrongdoing in their company. The feelings of anger and resentment are mentioned explicitly with regards to the person who committed the act and their perceived responsibility (Gundlach et al., 2003). Another affective reaction presented in the model is fear of either organizational retaliation or of the wrongdoer himself who is able to elicit it in the observer via impression management. Together these emotions (anger, resentment, and fear), have direct influence on the decision to report the questionable act.

Another study presented by the same authors (Gundlach et al., 2008) provides support for the model. Specifically, the respondents who were exposed to the scenarios, where the wrongful act was attributable to controllable and stable causes, reported significantly higher perceptions of judgments of responsibility. Moreover, the relationship between those judgments and the decision to report the wrongdoing was proved to be fully mediated by the feelings of anger (Gundlach et al., 2008).

Further analysis of elicitors of anger as a part of whistleblowing experience was presented also in another paper by Erika Henik (2015), which was based on the set-theoretic analysis of 60 cases extracted from 50 in-depth interviews done with whistleblowers and inactive observers. From her results, two types of whistleblowers are inferred: Strategic Moral Guardian and Fed-Up Vigilante. In both cases, anger promoted the decision to report the wrongdoing and was experienced as a consequence of negative organizational signaling. More specifically, Strategic Moral Guardians were angry at their organizations because they considered them aware yet inactive, while Fed-Up Vigilantes felt anger after they had observed or suffered organizational retaliation and thus were willing to report the wrongdoing externally (Henik, 2015).

The special role of anger in this decision-making process may be explained by the fact that anger is known to be related to approach tendencies (e.g. Haidt, 2003; Carver and Harmon-Jones, 2009). More specifically, it promotes action to restore the circumstances to the way (according to the agent), they are “supposed to be” (e.g. Mascolo et al., 2000).

The decision to take action among angry individuals in the context of whistleblowing has been also further explained in other studies. In a theoretical work from Henik (2008), the author extends SIP model by Gundlach and proposes that anger promotes whistleblowing decision due to its certainty appraisal and contrasts it with another emotion of negative valence: fear, which increases the likelihood of seeing risk as higher (Henik, 2008, Lerner and Keltner, 2001). During the whistleblowing episode then, scared observers are more likely to see retaliation as more plausible and

stay silent, while the angry ones, confident of their success are more likely to ignore the risk of retaliation, and decide to report the wrongdoing (Henik, 2008).

This argument has been partially supported in the paper by James Hollings (2013) where the author describes four cases of whistleblowing in New Zealand. In particular, the whistleblowers in the study reported that only when the feeling of anxiety, fear or indecision was transformed into anger, they were managed to report the wrongful act. When asked to explain their change of heart they stated that the anger enabled them to see the consequences of speaking up in a more favorable light and to gain more confidence (Hollings, 2013).

Yet, there is another characteristic of anger that bears mentioning, that one which remains sparsely discussed in the context of whistleblowing, namely that anger arises as a response to perceived goal blockage (eg. Roseman and Smith, 2001). Individuals who see obstacles in the pursuit of their goals get frustrated and then consequently angry, oftentimes directing the feeling towards the offender. (Dollard, 1939, Berkowitz, 1989)

Provided then that the wrongdoing committed by the transgressor is harming one's self-interest (understood as a pursuit of a goal to maximize one's favorable outcome), the potential observer of said wrongdoing should experience higher levels of anger than his or her colleagues who do not lose anything. Or to put it differently, whose self-interest remains unaffected. Consequently, it is reasonable to believe, that as observed in above cited studies (Henik, 2015, Hollings, 2013, James et. al, 2014), the anger would increase the likelihood of the observers to denounce the act.

In sum, prior research has provided some preliminary evidence that angry individuals are more likely to blow the whistle than to remain silent observers due to the fact that the feeling of anger is related to an appraisal of certainty and approach tendencies (e.g. Haidt, 2003, Henik, 2008). Moreover, the literature on organizational behavior and whistleblowing has identified two main elicitors of anger: perception of responsibility as a consequence of attributions concerning locus of stability, causality, and controllability (Gundlach et al., 2008), and organizational signaling regarding the way the organizations deal with wrongdoing (inaction) and other whistleblowers (retaliation) (Henik, 2008).

Building on prior research, however, we theorize that individuals who link their financial loss to the act of wrongdoing will experience higher level of anger due to perceived harm of their self-interest (Hypothesis 2a). In consequence, they will demonstrate higher probability of whistleblowing behavior (Hypothesis 2b).

## **Study 1**

### **Method**

For the purpose of Study 1 a sample of 211 participants was recruited using Amazon Mechanical Turk. The participants were randomly assigned to 4 different conditions as per 2 (angry, N = 99 vs. calm, N = 112) x 2 (high self-interest – loss, N = 103 vs. low self-interest – no loss, N = 108) experimental design employed in this study. The subjects were on average around 35 years old, were mostly US citizens (72%) and were paid \$0,50 of participation fee. The data obtained were later analyzed using IBM SPSS and STATA 13 software.

The participants were first assigned to a priming condition (“angry” or “calm”) in which they were asked to complete crosswords containing either anger-related (“violence”, “red” etc.) or neutral/calm related words (“peace”, “relaxed” etc.). Similar manipulations had been previously proven effective and are in wide use still (e.g. Schorn and Maurhart, 2009). The complete list of items used along with the questionnaire can be found in the Appendix B.

After completing the crossword, the subjects were presented with a hypothetical scenario. They were asked to imagine they were participating in a lab-based experiment concerning risks and decision-making with a group of 9 other people in which they were invited to gamble up to \$5 of their \$10 participation fee in a roulette game, and presented with the rules.

Every participant then made their decision regarding whether or not, how much, and where he or she wanted to wager. In this specific scenario the subjects had only three betting options: bet on color (47% chance and paying even money 1:1), bet on corner (10% chance of winning paying 8:1), or not bet at all.

The decisions in the roulette game were made publically and written on the whiteboard for everyone’s reference. Furthermore, during that part of the experiment in the scenario, and also during the game itself, the researcher would leave the room in order not to influence the decision-making process. In the fixed pie (high self-interest) condition, the subjects received additional information that there was a certain amount of money dedicated to each session and in case the cumulative wins of their group were not high enough, the leftovers would be equally distributed among all participants.

Regardless of the condition, the participants were in, they received the same information about the game’s outcome. Specifically, they were told next that whatever they had decided to wager, they lost it and that no one managed to bet on corner and win. Afterwards, the participants in the scenario reported their wins on paper which they put inside the envelopes. The researcher collected the envelopes and left the room once again to fetch the money for the participants.

When he came back, the researcher distributed the wins among the participants and upon reaching the last person in the room made the following announcement: “Let me now congratulate Peter. He won \$40!” while in the fixed pie (high self-interest) condition, the researcher also mentioned that due to lucky Peter, the budget had been exhausted so there would be no money left to be equally distributed.

At this point the participants of the experiment should have perceived that Peter had misreported his win because one was only able to win \$40 in case they bet all 5 dollars on the winning corner, which according to the described outcome, did not happen.

In the next part of the experiment, the subjects were offered the opportunity to provide feedback on the roulette study from the point of view the participant aware of the cheating which took place. Moreover, they were specifically asked whether they would report the cheating in the feedback (DV1), and whether they would explicitly mention Peter’s name (DV2). Both dependent variables were measured using a 4 point scale varying from “Definitely no”, to “Definitely yes”. Afterwards, the subjects were asked to provide a brief justification for their choice.

Then, the participants answered questions regarding their understanding of the scenario (manipulation check), and demographic variables were collected, namely: age, gender, education level, country of origin, country of residence, and first language.

## **Results**

Before we proceeded with hypothesis testing, we used a chi-square test in order to check the distribution of potentially important demographic variables across the conditions (details in Table 1 in the Appendix). The results showed an abnormal distribution of gender in the second factor, which was high self-interest ( $p < 0,05$ ) while all the other variables (country of origin, age, and first language) proved to be statistically insignificant ( $p > 0,05$ ) and thus their even distribution across the conditions was confirmed. In consequence, the variable of gender was included in the models during hypothesis testing, that we will discuss below, as a control variable.

Having compared the distribution across the conditions and variables used in the study, we conducted a manipulation check. Results we gathered confirmed that almost all the subjects read the scenario carefully enough to remember the exact sum Peter had won in the study (96,3%). Moreover, the vast majority (82,3%) of the participants in the fixed pie (self-interest) condition confirmed that the sentence regarding the distribution of the leftovers was present in the scenario, while 89,8% of

subjects in the other condition indicated that it was not. We found these results satisfactory enough to carry out hypotheses testing.

### **Hypotheses testing**

In order to assess whether anger and self-interest influenced individual's decision to blow the whistle, two two-way ANOVA models were computed in which the willingness to denounce the act of wrongdoing and the willingness to denounce the cheater were dependent variables and the type of priming and self-interest, or lack thereof were binary independent variables. An interaction term between these two variables as well as the gender variable which was supposed to be a control variable, were also included in the models.

The test of the model in which willingness to report the cheating was dependent variable did not reveal any significant impact of neither priming manipulation ( $M_{\text{Anger}} = 3,27$   $M_{\text{Neutral}} = 3,24$ ,  $p > 0,05$ ), nor self-interest ( $M_{\text{Loss}} = 3,30$  vs.  $M_{\text{NoLoss}} = 3,21$ ,  $p > 0,05$ ), showing that anger and high self-interest did not affect the subjects, who declared a strong intention to denounce wrongdoing in the lab. Interestingly, gender proved to be significant variable with female participants more willing to report the cheating than the male ones ( $M_{\text{Male}} = 3,1$  vs.  $M_{\text{Female}} = 3,4$ ;  $p < 0,01$ ).

A substantially different pattern of results emerged when we computed the other ANOVA model with willingness to point out the cheater as a dependent variable. The analysis of the main effects revealed a non-significant effect of anger ( $M_{\text{Angry}} = 2,92$   $M_{\text{Neutral}} = 2,92$   $F(1) = 0,003$ ,  $p > 0,05$ ), however, the effect of self-interest on the decision to denounce the cheater proven to be significant with  $F(1) = 3,78$ ,  $p = 0,05$ . More specifically, the subjects directly affected by the cheating (fixed pie condition) were on average more likely to point out the dishonest Peter (low self-interest:  $M = 2,79$  vs. high self-interest  $M = 3,05$ ). The interaction between the two factors was not significant ( $F(1) = 1,53$   $p > 0,05$ , although a closer examination of simple main effects revealed that the second factor (self-interest) had significantly increased people's willingness to denounce the cheater only if they had been previously primed with anger-eliciting crossword.

The participants in the angry condition who had been manipulated to perceive the cheating as a cause of their financial loss were more likely to denounce Peter ( $M = 3,13$ ,  $N = 47$ ) than the subjects who were not informed about possible distribution of the leftovers ( $M = 2,72$ ,  $N = 52$ ). The chi-square test showed this difference was statistically significant ( $\chi^2 = 4,71$ ,  $p < 0,05$ ) while other pairwise comparisons were not ( $p > 0,05$ ). The results are presented in Table 1, as well as in Figures 1 and 2.

Table 1 ANOVA results: effects of self-interest and anger on the decision to report the cheater.

Source	Sum of squares	d.f.	MS	F
Self-interest (fixed pie)	3,25	1	3,25	3,78*
Angry	0,002	1	0,002	0,00
Self-interest X Angry	1,32	1	1,32	1,54
Gender	0,17	1	0,174	0,2
Error	177,34	206	0,86	
Total	181,63	210	0,86	

Note: \*  $P \leq 0,05$ ,  $R^2=0,02$  (Adjusted  $R^2= 0,004$ )

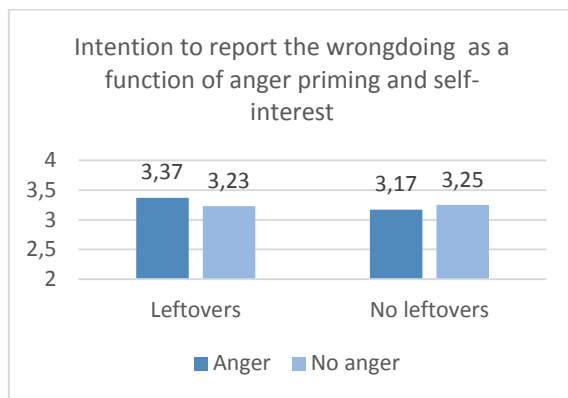


Figure 1

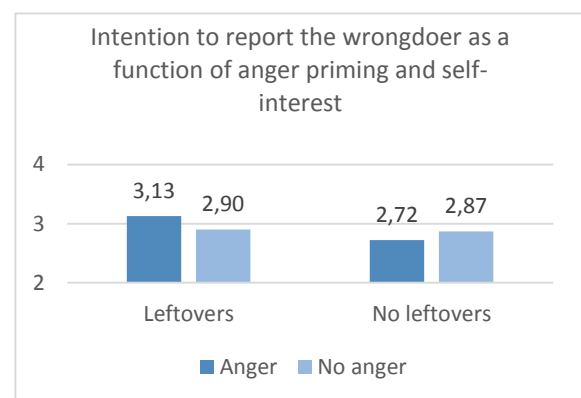


Figure 2

## Discussion

The results of the Study 1 showed that neither self-interest nor anger resulted in a higher willingness to report the act of wrongdoing. However, the subjects manipulated into perceiving the cheater as the one who deprived them of the opportunity to increase their earnings in the roulette game scenario, and who had been previously exposed to an anger-priming exercise, were significantly

more willing to denounce the cheater than the people who were presented with the same priming material but had not been informed about a possibility of gaining additional money.

In sum, the results seem to suggest that a directly perceived financial loss is able to increase the propensity to denounce the wrongdoer especially if it is paired up with a previously conducted anger-priming exercise. This could suggest that the feeling of anger interacts differently with high self-interest than it does with the wrongdoing that does not affect people personally.

Even though the results found provide some indication in favor of Hypotheses 1 and 2b, it is impossible to ignore some of the shortcomings of Study 1. First, the scenario is imaginary, and even though it is common to use vignettes in the whistleblowing research, one cannot deny the big role played by the social desirability bias which might have influenced the respondents to blow the whistle (ceiling effect) even though in a real life situation they would not have done it.

Secondly, the anger-eliciting crossword was only a priming exercise and based solely on this study, we are unable to determine whether it was this variable that mediated the effect of high self-interest to increase whistleblowing. It is possible that there was another, omitted variable that caused the mechanism. Moreover, the priming material containing neutral words might have actually primed the participants with a calm disposition instead of neutral one, making them more passive in their consecutive decision to report the cheater. Therefore, it might not have been the emotion of anger but the emotional valence that caused the effect.

Finally, the survey was constructed in such a way that the subjects were explicitly asked to deliberate on reporting both the wrongdoing and wrongdoer separately. In a normal situation this dilemma may not occur. Possibly a participant who was given an option to denounce the cheater would have never done it in the first place and fact the survey's structure may actually promote a punishing behavior among the subjects who experienced direct financial loss instead of measuring it.

Nonetheless, the results encouraged us to implement a slightly modified version of the procedure in the lab environment. Consequently, we approached this task with several main goals in mind.

The first one was to further test the hypotheses 1, and 2b. In addition, we also wanted to assess whether the actual direct financial impact (high self-interest) would be able to elicit anger without the priming manipulation (hypothesis 2a), and whether type of reporting channel (anonymous/non-anonymous) will promote whistleblowing in a real-life situation. Specifically, the anonymous condition was expected to further encourage whistleblowing behavior since it is believed anonymity

ensures protection against possible retaliation and thus lowers personal cost of reporting (Kaplan et al. 2012)

To test all the hypotheses mentioned above, we decided to implement the procedure described in Study 1 in the lab. This choice was motivated by the fact that many experts have stressed the lack of laboratory studies involving whistleblowing (Miceli et al., 2008) and expressed the concern that most of the research is based on the imaginary scenarios that measure behavioral intentions instead of actual behavior (e.g. Park and Blenkinsopp, 2009, Bhal and Dadhich, 2008). Another issue is that the few studies that have been published have provided scarce to none substantial support for their hypotheses or have not been published in the top journals (Miceli et al., 2008).

A reason for such a low number of experimental studies are practical challenges around a whistleblowing experiment that one needs to address having decided to take on the task. Some obstacles to tackle include determining: a type of wrongdoing that would be believable and easy to notice, a good cover story, and a procedure that would be engaging for the participants. Since the procedure described in Study 1 and conducted online provided some preliminary results, we decided to proceed with testing it in the Behavioral Lab (Study 2) located on FGV campus with the participation of undergraduate students and recent graduates from various schools of Rio de Janeiro.

## **Study 2**

### **Changes in experimental procedure**

Building on the results from Study 1, which provided preliminary evidence that angry individuals who are personally affected by the wrongdoing will be more willing to not only denounce it but also to disclose the identity of the wrongdoer, we decided to test the robustness of these findings in the lab.

In order to do that, the same procedure that has been described in the hypothetical scenario in Study 1 was employed. However, the pre-tests revealed several problems. The most serious of them being that the wrongdoing was not evident enough to the participants who once debriefed declared they did not notice any cheating in the room. Therefore, some minor changes in the previously described procedure were introduced and are discussed below.

First, in the leaflet promoting the experiment, students were informed that the purpose of the study was to investigate decision-making processes in business and gambling environment. This



information made it to the flayer for a reason: the subjects who participated in the whistleblowing experiment, they first took part in an unrelated study regarding leadership and task performance conducted by a fellow faculty student.

Additionally, in order to make the game more believable and also the cheating more apparent, the participants received more betting opportunities and in consequence, the payoffs changed. More specifically, the subjects were offered the option to bet on color, corner, pair, impair, lower, or upper half, and a number (with the exception of “zero”). They were also informed that they did not have to make any gambling decisions. Thus, basically, a participant could either choose not to bet, choose one of the options which offered around 50% of chance of winning and were paying even money (1:1), or bet on a specific number with around 2,5% chance of winning paying 35:1.

The change in odds and payoffs implied also a change in the amount that the confederate would rob in front of everyone in the group. In Study 2, the confederate stole the amount of RS\$175, which is equal to the payoff one would have received when betting on a winning number with all 5 chips. What is more, in the fixed pie condition, the participants were informed that in case of a big winner, he or she would have preference, and would take it all while all the others would leave the lab only with guaranteed sum of RS\$5 regardless of their betting decisions and the roulette outcome. In case the big winner was not present, however, the leftovers were said to be equally distributed among all the players.

Another factor, aside from self-interest, manipulated in the study was anonymity of the reporting channel. Some of the participants were asked to sign the questionnaire with their name, while the others were not. In addition, the completed questionnaires were collected in a cardboard box, which was supposed to make the anonymity of reporting channel even more salient.

Furthermore, the participants had not been exposed to any anger priming exercise before the roulette game. This way we were trying to assess what sort of emotional reaction being exposed to wrongdoing would elicit. Therefore, instead of priming anger, it was measured along with other self-related emotions.

Moreover, before the participants were left alone in the room they were instructed to play a trial round in order to make sure they understood the rules of the game. Then, a lottery was performed to choose a dealer from among the members of the group. The participants were told that the role of the dealer was to stir the wheel and ensure everyone in the group was aware of the betting decisions taken by others. However, the lottery was a part of the manipulation and the confederate was sorted as a dealer every single time. This additional function of the confederate was implemented to give

them more exposure in the group, as well as to make sure the participants would play by the game rules once left without supervision.

Another significant change from Study 1 was the way the participants inferred the wrongdoing took place and how they were nudged to report it. In Study 1 they were informed about it by the experimenter who congratulated the cheater in front of everyone for winning the money he did not, in fact, win. In Study 2, however, the cheater (using the moment when nobody was watching) moved all five chips to the winning number after the outcome was revealed, just before the experimenter was about to pay each participant based on the bets and amounts were displayed on the roulette towel. Thus, in Study 2, the participants were no longer reporting their results on their own. This change was implemented, as it seemed more realistic and more feasible to replicate in a lab scenario.

Moreover, in order to ensure the participants would not start reporting the cheating in front of everyone in the group and turn whistleblowing into a group behavior, the participants were told that once the researchers were back in the lab (after the proper game has been played), they were no longer allowed to communicate. Instead, they were encouraged to analyze the way they felt and share anything they wanted to (possible improvements, critique and so on) with the researchers in the feedback part of the survey. They were not, however, specifically asked if they wanted to reveal the cheating or point out to the cheating perpetrator.

Finally, there were some differences, which occurred due to the implementation of recruitment strategy, as well as time and logistic constraints. First, the sample consisted of 90 students enrolled in several undergraduate programs at the local universities of Rio de Janeiro – a group significantly younger and smaller than in the Study 1 (almost 21 years of age). Secondly, the cheater's role in the experiment was performed by not one, but three different female confederates, who were not professional actors. Lastly, the number of participants in each group varied from five to ten (including the confederate) due to the differences in students' schedule and difficulties to recruit equal number of subjects for each experimental session. As a result, decided to control for the number of participants in the group in the analysis.

It also bears mentioning, that the experimental groups were composed in such a way as to limit the likelihood their members would be acquainted. This precaution was taken in order to ensure that the confederate would not appear suspicious to the group from the very beginning and treated like an outsider which could have skewed the results.

In sum, Study 2 was a lab-based experiment which employed a 2x2 (high, N = 44 vs. low self-interest, N = 46 and anonymous, N = 44 vs. non-anonymous channel, N = 46) between-subject design.

## **Measures**

The subjects responded to two questionnaires. The first one was divided in two parts (before and after the game) and contained Big-Five scale, manipulation check questions, age and sex items, emotion measures, and an open-ended question where the subjects were asked for feedback. The second questionnaire was distributed only after the first part was answered and consisted of just three items: perception of cheating, self-assessment of whistleblowing, and a justification for not blowing the whistle on the cheater.

### **Whistleblowing**

The dependent variable was assessed based on an open item analysis, which was included in the questionnaire. The subjects were asked to provide feedback about any problems, critiques, or suggestions they might had regarding the roulette experiment.

The responses were coded by the researcher and then by an external coder into two binary variables: Reporting the wrongdoing and Reporting the Cheater as it was done in Study 1. The agreement rate between the coders was very high (around 95% and 94% for Reporting the wrongdoing and Reporting the wrongdoer respectively).

Moreover, the subjects were presented with another open-ended question urging them to provide a reason why they decided not to report the cheater to the researchers. This item was included in the second questionnaire distributed only after the participants completed the first one and were asked not to introduce any changes in already answered items.

### **Emotions**

The emotional valence and arousal after the wrongdoing exposure were measured using an adapted version of the Self-Assessment Manikin (SAM) two-item scale (Bradley and Lang, 1994). What is more, the participants were asked to choose one of four groups of emotions which they thought represented best the way they felt at the time: Group 1: fear, anxiety, nervousness 2: enthusiasm, exhilaration, fun, Group 3: discomfort, shame, annoyance, Group 4: anger, irritation, indignation).

### **Control variables**

**Big-5 personality factors** were assessed via a 20-item Mini-IPIP 5-point Likert scale developed by Donnellan and colleagues (2006). This scale was answered before the roulette game. Afterwards, the participants provided information about their **age** and **sex**.

## **Manipulation checks and hypothesis guessing**

In order to make sure that the participants understood the manipulation and paid attention to their surroundings, they were asked about the winning number in their session. They were also made to tell whether the researcher mentioned equal distribution of the leftovers in case of the absence of a big winner, and whether the subject noticed the cheating in the experimental room.

An additional, hypothesis- guessing question was also included in the survey, not only to assess whether the participants were able to name the purpose of the study, but also to control for a possible contagion between subjects.

## **Results**

### **Manipulation checks**

The results of the manipulation checks suggested that vast majority understood the rules of the game and were aware of its outcome since out of 90 participants 80 (89%) reported a correct winning number and 78 (87%) remembered correctly whether the experimenter mentioned leftovers' distribution.

However, only 67 participants (74%) reported that they were aware of the cheating incident in the lab. Further analysis revealed discrepancy in wrongdoing perception across two experimental groups. More specifically, those informed that in case nobody won the top prize the leftovers would be evenly distributed, were much more perceptive as 86,4 % of subjects in the "leftovers condition" responded that they noticed the cheating, while only 63% of them did so in the "no leftovers condition" (low self-interest). The results of logistic regression with perception of wrongdoing as dependent variable confirmed that, indeed, this difference was statistically significant ( $\beta = 1,295$  SE = 0,54,  $p = 0,01$ ).

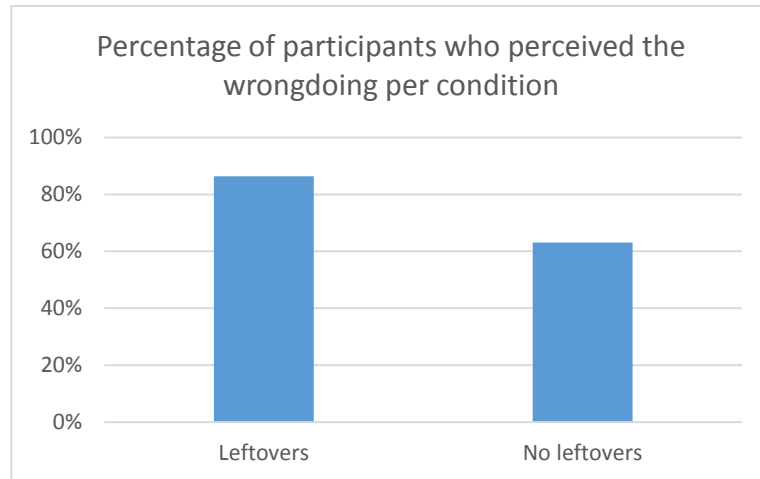


Figure 3

Another problem that emerged from this preliminary data analysis was an uneven distribution of participants across the conditions. Chi-square tests and ANOVA confirmed these concerns; significant results were found for gender and age distribution in both factors (details in Table 2 in the Appendix). Both variables were later controlled for in the hypotheses testing. No significant differences have, however, been found between the conditions in terms of number of participants in the groups ( $p > 0,05$ ) nor personality factors ( $p > 0,05$ ). Finally, having analyzed the answers, we assessed that 8 participants (9%) guessed the hypothesis. Notwithstanding the problems identified so far, we proceeded with further testing.

We carried out the analysis of the internal reliability of IIPP personality scale. The Extraversion, Agreeableness and Openness to new experiences were the factors where all 4 items had satisfactory loadings (over 0,67) and high internal reliability (Cronbach alpha  $> 0,7$ ). However, in each of two other factors (Conscientiousness and Neuroticism) there was one item that did not achieve loadings higher than 0,60 and thus they were excluded from the analysis. The rest of the items were averaged within their respective factors. Complete information regarding loadings and factors is presented in Table 3 in the Appendix.

The distribution of personality traits across the experimental conditions was even (results of ANOVA for all personality traits distribution across conditions were  $p > 0,05$ ), thus, we had chosen not to include these variables in the hypothesis testing model.

## **Hypotheses Testing**

### **Emotional reaction check**

To explore the differences in emotional reactions between self-interested and not self-interested conditions (Table 4 in Appendix A), as well as between individuals in anonymous and non-anonymous conditions we conducted a Chi-square test. Contrary to our predictions, the participants did not experience more anger in the condition where they were financially affected by the cheater (32% vs. 31% cases,  $\chi^2(1) = 0,006$ ,  $p > 0,05$ ). Also the differences between other groups did not prove to be significant  $p > 0,05$  which prompted us to conclude, that those who had lost money as a consequence of wrongdoing did not feel more angry than their counterparts who did not. As a consequence, we discarded Hypotheses 2a and 2b which predicted that direct financial loss caused by the cheating would elicit more anger in the participants and thus would result in higher whistleblowing rate.

However, it bears mentioning that the comparison between the anonymous and non-anonymous group showed that in the case of anger, the participants who received non-anonymous questionnaires, were more prone to report it ( $\chi^2(1) = 5,45$ ,  $p > 0,05$ ).

In order to verify whether self-interest and anonymity of reporting channel, influenced individual's decision to blow the whistle on the wrongdoing and/ or the cheater, four different models were run for each dependent variable. We opted for binary logistic regression as this test is known to be used when dependent and independent variables are categorical and binary (Long and Freese, 2001).

The first model contained only the variables manipulated in the study and the outcome: willingness to denounce the act with the effect being insignificant in both cases. The anonymity of reporting channel reached significance level of  $p = 0,09$ , yet the direction of the effect was opposite of what was expected. Thus, we concluded there was no main effect of self-interest on whistleblowing, but weak, and negative effect of anonymity was found.

In Model 2, we introduced the interaction term of self-interest and anonymity. The interaction proved to be marginally significant (with  $p = 0,10$ ). Moreover, we observed a marginally significant simple main effect of treatment among participants in non-anonymous condition, further confirmed in the latter two models where covariates were included (Models 3 and 4). The results are presented in Table 2.

Table 2 Results of Logistic regression with Reporting the wrongdoing as dependent variable

	Model 1	Model 2	Model 3	Model 4
Constants	-0,24	-0,53	-2,7	-7,3*
Self-interest	0,38	1,07+	1, 15+	1,5*
Anonymity	-0,74+	-0,008	-0,06	0,46
Self-interest x anonymity		-1,47+	-1,3	-1,91+
Age			0,11	0,11
Gender			-0,43	-0,46
Valence				0,17
Arousal				0,11
Enthusiasm				-0,18
Fear				0,02
Anger				1,543
Extraversion				0,47
Agreeableness				-0,007
Conscientiousness				0,17
Neuroticism				0,01
Openness for new experiences				0,18
Model $\chi^2$	3,16	2,71+	1,58	12,07
Pseudo R <sup>2</sup>	0,04	0,08	0,10	0,26

Note: +  $P \leq 0,10$  \*  $P \leq 0,05$

Finally, none of the variables included in the models with dependent variable (Models 5-8) as denouncing the wrongdoer reached the significance level  $p < 0,05$  (Table 3 in the Appendix).

To sum up, the results of Study 2 failed to confirm Hypotheses 2a and 2b. Moreover, Hypothesis 1 could not be supported either. However, it bears mentioning that a significant effect of self-interest treatment was found among the participants in the non-anonymous condition. In the next

sections, we discuss the results of both studies, present their limitations and suggest possible directions future the research could take.

## **Discussion**

While the debate concerning whistleblowing has by no means ceased, our findings regarding self-interest related to the wrongdoing and emotions elicited by it, shed some light on the complex process behind making the decision to blow the whistle.

The results from Study 1, provided some preliminary evidence that while there was no positive link between direct financial loss and intention to report the wrongdoing, it had significant effect on the likelihood to report the wrongdoer. Moreover, the whistleblowing rate was higher among these participants who had been exposed to an anger-priming manipulation.

To check the robustness of this result and test Hypothesis 2b, Study 2 has been conducted, this time in the lab, and even though neither the main effect of direct financial impact on whistleblowing, nor the variance in the anger felt by affected and non-affected participants have been found (possibly due to some procedural limitations), a marginally significant simple main effect emerged within the group of those participants, who were offered to report the wrongdoing via non-anonymous channel. We discovered they were more likely to report the wrongdoing when they attributed wrongdoing as a cause of their financial loss than the subjects who did not.

Given the sample size in Study 2, this effect might have been mere coincidence. However, it may also confirm some reservations concerning the effect the anonymity has on whistleblowing. Specifically, it has been reported that ever since the introduction of The Sarbanes-Oxley Act (SOX), in 2002 in the US, per which all publicly trading companies are obliged to establish both anonymous and non-anonymous reporting channels in order to protect whistleblowers, the level of whistleblowing has gone down by 20% (Dyck, et al. 2007). Moreover, some other papers questioned the quality of anonymous reports, arguing that by definition they are more difficult to follow up on or confirm (Jernberg, 2003).

An increased likelihood to report the wrongdoing via non-anonymous channel found in the study, could be related to the feeling of anticipated pride one hopes to experience after the act (e.g. Edwards et al. 2009, Ohnishi et al., 2008). Prior research shows that the feeling of pride is strongly related to the public praise and recognition (Webster et al., 2003). However, taking a credit for doing the right thing might have been less salient or more difficult for those individuals who were offered



a possibility to report the wrongdoer anonymously. In consequence, it might have discouraged them from blowing the whistle.

The effect may be also further explained by impression management theory which states that people care how the others interpret their actions, and thus they try to influence these impressions depending on their personal goals, for example: group acceptance, or power advantage (Jones and Pittman, 1982, Gordon, 1996, Ratner and Kahn, 2002). It is possible that participants in the non-anonymous condition were encouraged by the public form of disclosure to make themselves look more competent in front of the experimenter, rather than liked by the group. In other words, by denouncing the cheating incident they were engaging in a form of self-enhancing activity. Nonetheless, these hypotheses would require further testing.

Interestingly enough, the participants who believed they had lost their money as a consequence of wrongdoing, were more likely to notice the cheating incident in the lab. This finding may result from the fact that the condition of outcome interdependence might have caused the groups to adopt prevention regulatory focus (Crowe and Higgins, 1997) and, in consequence, they became more vigilant. A study by Beersma and colleagues (2013) seems to support this notion as it shows that prevention-focused teams with team awards structure demonstrate lower tolerance for errors and higher engagement than promotion-focused teams.

Another possible explanation for this discrepancy is high internal consistency typical for self-reported measures caused by one's tendency to reduce cognitive dissonance (Harmon-Jones and Harmon-Jones, 2007) that could have possibly influenced the participants to declare that they did not observe any cheating in the room because they failed to report it in the first place.

### **Practical implications**

In some managerial circles, self-interest has been seen rather as an obstacle than an idea worth spreading (e.g. Simha and Cullen, 2012). However, the findings presented in the paper provide preliminary support to the opposite: creating interdependence of financial outcome in organizations, and by extension increasing self-interest of their employees, can have positive consequences. Specifically, it makes people more aware of any wrongdoing committed in their vicinity and it could elicit emotional reaction, which would in turn result not only in blowing the whistle on corporative crimes, but also possibly, exposing individuals behind them.

This does not necessarily mean that companies should abandon the popular path of promoting whistleblowing as a prosocial behavior (e.g. Street, 2011). Rather, we suggest that a fresh and realistic framework of seeing the act of reporting the wrongdoing in a more tangible way, related not only to financial incentives already offered by some organizations, but also to individual loss could be employed.

For instance, it seems reasonable to believe that many public service employees would be more willing to report corruption cases if they perceived that the money robbed came from their own pocket. We believe a salary system related to the organizational performance based on thriftiness could possibly tackle this problem. Another venue public institutions could take is to make sure that their employees are aware of how public funds are being distributed in their surroundings and how much of it is subject to embezzlement as a result of specific cases of corruption or over-spending.

## **Limitations**

As all experimental studies, also the ones presented in the paper are bound by certain limitations. First, the only significant effect of self-interest on whistleblowing emerged in Study 1 which not only was web-based, it also used an imaginary scenario, and it was conducted on a group consisting of mainly US citizens. Therefore, the lack of main effect in the second study may be related to the sample's distinctive characteristics since in Study 2 almost all participants were undergraduate Brazilian students enrolled in private universities who could have been less affected by the size of cheating in the lab.

Another shortcoming that we acknowledge is the sample size of Study 2 which is due to the recruiting difficulties the researchers encountered. VanVoorhis and Morgan (2007) mention that between-subject experimental studies should account for at least 30 subjects per condition, which is the exact number our study comes short of in fulfilling this requirement.

In addition, the significant difference in perceiving the wrongdoing between self-interested condition and the control in Study 2 may have at least two explanations. First, all of the subjects, acknowledged the wrongdoing but were ashamed to reveal it, thus they chose the “No” option when asked to tell whether they had noticed any kind of cheating in the lab. Another possible explanation is, that they, indeed, failed to understand that the roulette outcome had been altered by the cheater's

actions. This would mean they were ultimately not manipulated successfully, and that the procedure requires revision.

Furthermore, in Study 2, there were three different women working as confederates, which we think, might have had additional effect on whistleblowing behavior. We noticed, for instance, that in the last three sessions conducted with the third confederate, the awareness of whistleblowing was especially low: only 8 out of 22 participants declared they noticed someone cheated in the roulette game. This would confirm the suggestion from Gundlach's model that the transgressor can affect the observer and influence their decision to report the wrongdoing (Gundlach et al., 2003).

Finally, it has to be acknowledged that one of the purposes of Study 2 was to expose the participants to just one act of wrongdoing. However, from the confederates' reports that we collected after the sessions, we learned that in nearly every study group, the participants were either colluding with one another to change the roulette outcome after the researchers left the lab for them to play, or they were entering in agreements with each other to divide the prize in case one of them won. This was one behavior that we had not foreseen, and it might have influenced the results, as it has been shown that being exposed to an uncorrected wrongdoing in the organization, can result in demoralization (Miceli et al., 2012).

### **Future research**

Notwithstanding the operational difficulties, we suggest that further work on the development of experimental studies able to provide consistent results in the area of whistleblowing should be continued. There is a need of validation in the field of some already expressed propositions (Miceli et al., 2008) and, as it is hoped this paper successfully conveys, even studies that fail to produce significant effect can still provide interesting findings concerning group behavior, the topic of wrongdoing in the organizations, and the decision to report it.

Additionally, we believe that a few procedural changes such as assigning only one confederate, making the procedure simpler in a sense of reducing the number of conditions, increasing the sample size, and controlling for the behavior of participants when they play, could improve the Study 2 and potentially help to find the confirmation for hypotheses.

Moreover, even though it is only partially supported, the notion that self-interest could have positive impact on whistleblowing, should be of interest to both scholars and practitioners. Next

studies could aim to confirm this finding and examine its implications on other variables of interest such as organizational climate and engagement.

The role the emotions can play in reporting a wrongdoing, as well as in its perception and labeling has not yet been fully explained either. Study 1 provides evidence that even a priming of anger, which was completely unrelated to the wrongdoing is capable of increasing the chances that the cheater would be explicitly pointed out in the report. It is likely that other incidental emotions, which have been proven to influence consequent decision-making process (Andrade and Ariely, 2009), would have different effects on whistleblowing. Shame and guilt, for instance, are known to be related to opposite appraisals concerning self-efficacy (e.g. Baldwin et al., 2006), as well as distinct coping strategies (Duhachek et al., 2012). Future research could investigate whether their incidental manipulation is able to influence the decision to blow the whistle.

## References

- Andrade, Eduardo B., and Dan Ariely. "The enduring impact of transient emotions on decision making." *Organizational Behavior and Human Decision Processes* 109.1 (2009): 1-8.
- Association of Certified Fraud Examiners (2014) *Report to the Nation: Occupational Fraud and Abuse*, Austin, TX
- Armenakis, Achilles. "Making a difference by speaking out: Jeff Wigand says exactly what's on his mind" *Journal of Management Inquiry*, 13 (4) (2004):355–362
- Baldwin, Kim M., John R. Baldwin, and Thomas Ewald. "The relationship among shame, guilt, and self-efficacy." *American Journal of Psychotherapy* 60.1 (2006): 1.
- Bamford, James. "The most wanted man in the world" *Wired*, 22. 9 (2014): 78-95.
- Barnett, Tim, Ken Bass, and Gene Brown. "Religiosity, ethical ideology, and intentions to report a peer's wrongdoing." *Journal of Business Ethics* 15.11 (1996): 1161-1174.
- Berkowitz, Leonard. "Frustration-aggression hypothesis: examination and reformulation." *Psychological bulletin* 106.1 (1989): 59.
- Beersma, Bianca, et al. "Outcome interdependence shapes the effects of prevention focus on team processes and performance." *Organizational Behavior and Human Decision Processes* 121.2 (2013): 194-203.
- Bradley, Margaret M., and Peter J. Lang. "Measuring emotion: the self-assessment manikin and the semantic differential." *Journal of behavior therapy and experimental psychiatry* 25.1 (1994): 49-59.
- Brief, Arthur P., and Stephan J. Motowidlo. "Prosocial organizational behaviors." *Academy of management Review* 11.4 (1986): 710-725.
- Briers, Barbara, Mario Pandelaere, and Luk Warlop. "Adding exchange to charity: a reference price explanation." *Journal of Economic Psychology* 28.1 (2007): 15-30.
- Burton, Brian K., and Janet P. Near. "Estimating the incidence of wrongdoing and whistle-blowing: Results of a study using randomized response technique." *Journal of Business Ethics* 14.1 (1995): 17-30.
- Callahan, Elletta Sangrey, and Terry Morehead Dworkin. "Do good and get rich: Financial incentives for whistleblowing and the False Claims Act." *Vill. L. Rev.* 37 (1992): 273.
- Carver, Charles S., and Eddie Harmon-Jones. "Anger is an approach-related affect: evidence and implications." *Psychological bulletin* 135.2 (2009): 183.

- Critcher, Clayton R., and David Dunning. "No good deed goes unquestioned: Cynical reconstruals maintain belief in the power of self-interest." *Journal of Experimental Social Psychology* 47.6 (2011): 1207-1213.
- Crowe, Ellen, and E. Tory Higgins. "Regulatory focus and strategic inclinations: Promotion and prevention in decision-making." *Organizational behavior and human decision processes* 69.2 (1997): 117-132.
- Dadhich, Anubha, and Kanika T. Bhal. "RESEARCH Ethical Leader Behaviour and Leader-Member Exchange as Predictors of Subordinate Behaviours." *Vikalpa* 33.4 (2008): 15.
- Decoster, Stijn, Jeroen Stouten, and Thomas M. Tripp. "Followers' reactions to self-serving leaders: the influence of the organization's budget policy." *American Journal of Business* 29.3/4 (2014): 202-222.
- Diekmann, Kristina A., et al. "Self-interest and fairness in problems of resource allocation: allocators versus recipients." *Journal of personality and social psychology* 72.5 (1997): 1061.
- Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376 (2010)
- Donnellan, M. Brent, et al. "The mini-IPIP scales: tiny-yet-effective measures of the Big Five factors of personality." *Psychological assessment* 18.2 (2006): 192.
- Dollard, John, et al. "Frustration and aggression." (1939).
- Duhachek, Adam, Nidhi Agrawal, and DaHee Han. "Guilt versus shame: Coping, fluency, and framing in the effectiveness of responsible drinking messages." *Journal of Marketing Research* 49.6 (2012): 928-941.
- Dworkin, Terry Morehead, and A. J. Brown. "Money or the Media: Lessons from Contrasting Developments in US and Australian Whistleblowing Laws, The." *Seattle J. Soc. Just.* 11 (2012): 653.
- Dyck, Alexander, Adair Morse, and Luigi Zingales. "Who blows the whistle on corporate fraud?." *The Journal of Finance* 65.6 (2010): 2213-2253.
- Edwards, Marissa S., Neal M. Ashkanasy, and John Gardner. "Deciding to speak up or to remain silent following observed wrongdoing: The role of discrete emotions and climate of silence." *Voice and silence in organizations* (2009): 83-109.
- Gordon, Randall A. "Impact of ingratiation on judgments and evaluations: A meta-analytic investigation." *Journal of Personality and Social Psychology* 71.1 (1996): 54.
- Grant, Adam M., and Shefali V. Patil. "Challenging the norm of self-interest: Minority influence and transitions to helping norms in work units." *Academy of Management Review* 37.4 (2012): 547-568.

Gundlach, Michael J., Scott C. Douglas, and Mark J. Martinko. "The decision to blow the whistle: A social information processing framework." *Academy of Management Review* 28.1 (2003): 107-123.

Gundlach, Michael J., Mark J. Martinko, and Scott C. Douglas. "A new approach to examining whistle-blowing: The influence of cognitions and anger." *SAM Advanced Management Journal* 73.4 (2008): 40.

Haidt, Jonathan. "The moral emotions." *Handbook of affective sciences* 11 (2003): 852-870.

Harmon-Jones, Eddie, and Cindy Harmon-Jones. "Cognitive dissonance theory after 50 years of development." *Zeitschrift für Sozialpsychologie* 38.1 (2007): 7-16.

Henik, Erika. "Mad as hell or scared stiff? The effects of value conflict and emotions on potential whistle-blowers." *Journal of Business Ethics* 80.1 (2008): 111-119.

Henik, Erika. "Understanding whistle-blowing: a set-theoretic approach." *Journal of Business Research* 68.2 (2015): 442-450.

Hollings, James. "Let the story go: The role of emotion in the decision-making process of the reluctant, vulnerable witness or whistle-blower." *Journal of business ethics* 114.3 (2013): 501-512.

Jernberg, Donald V. "Whistle-blower hot lines carry own risks." *Business Insurance* 37.26 (2003): 10-12.

Jones, Edward E., and Thane S. Pittman. "Toward a general theory of strategic self-presentation." *Psychological perspectives on the self* 1 (1982): 231-262.

Jones, Joanne C., Gary Spraakman, and Cristóbal Sánchez-Rodríguez. "What's in it for Me? An Examination of Accounting Students' Likelihood to Report Faculty Misconduct." *Journal of business ethics* 123.4 (2014): 645-667.

Kaplan, Steven E., et al. "An examination of anonymous and non-anonymous fraud reporting channels." *Advances in Accounting* 28.1 (2012): 88-95.

Kish-Gephart, Jennifer, et al. "Situational moral disengagement: Can the effects of self-interest be mitigated?" *Journal of Business Ethics* 125.2 (2014): 267-285.

Lerner, Carolyn, "Re: DHS Whistleblower Disclosures on Misuse of Overtime Pay Generate \$100 Million in Annual Cost Savings" Message to President Obama. 11 March 2015. Retrieved December 4, 2015 from <https://osc.gov/PublicFiles/FY2015/15-15/AUO%20-%20Letter%20to%20the%20President.pdf>

- Lerner, Jennifer S., and Dacher Keltner. "Fear, anger, and risk." *Journal of personality and social psychology* 81.1 (2001): 146.
- Long, J. Scott, and Jeremy Freese. "Predicted probabilities for count models." *Stata Journal* 1.1 (2001): 51-57.
- Mascolo, Michael F., Debra Harkins, and Thomas Harakal. "The dynamic construction of emotion: Varieties in anger." *Emotion, development, and self-organization: Dynamic systems approaches to emotional development* (2000): 125-152.
- Mesmer-Magnus, Jessica R., and Chockalingam Viswesvaran. "Whistleblowing in organizations: An examination of correlates of whistleblowing intentions, actions, and retaliation." *Journal of Business Ethics* 62.3 (2005): 277-297.
- Miceli, Marcia P., et al. "Predicting employee reactions to perceived organizational wrongdoing: Demoralization, justice, proactive personality, and whistle-blowing." *Human relations* 65.8 (2012): 923-954.
- Miceli, Marcia P., Janet P. Near, and Terry M. Dworkin. *Whistle-blowing in organizations*. Psychology Press, 2008.
- Miceli, Marcia P., Janet P. Near, and Charles R. Schwenk. "Who blows the whistle and why?" *Industrial & Labor Relations Review* 45.1 (1991): 113-130.
- Miceli, Marcia P., and Janet P. Near. "An international comparison of the incidence of public sector whistle-blowing and the prediction of retaliation: Australia, Norway, and the US." *Australian Journal of Public Administration* 72.4 (2013): 433-446.
- Miller, Dale T. "The norm of self-interest." *American Psychologist* 54.12 (1999): 1053.
- Murphy, Sheila T., and Robert B. Zajonc. "Affect, cognition, and awareness: affective priming with optimal and suboptimal stimulus exposures." *Journal of personality and social psychology* 64.5 (1993): 723.
- Near, Janet P., and Marcia P. Miceli. "After the wrongdoing: What managers should know about whistleblowing." *Business Horizons* (2015).
- Near, Janet P., and Marcia P. Miceli. "Organizational dissidence: The case of whistle-blowing." *Journal of Business Ethics* 4.1 (1985): 1-16.
- Ohnishi, Kayoko, et al. "The process of whistleblowing in a Japanese psychiatric hospital." *Nursing ethics* 15.5 (2008): 631-642.
- Park, Heungsik, and John Blenkinsopp. "Whistleblowing as planned behavior—A survey of South Korean police officers." *Journal of Business Ethics* 85.4 (2009): 545-556.



- Ratner, Rebecca K., and Barbara E. Kahn. "The impact of private versus public consumption on variety-seeking behavior." *Journal of Consumer Research* 29.2 (2002): 246-257.
- Roseman, Ira J., and Craig A. Smith. "Appraisal theory: Overview, assumptions, varieties, controversies." (2001).
- Schorn, Robert, and Barbara Maurhart. "Influencing willingness to pay by supraliminally priming the concept of honesty." *Advances in Consumer Research* 36.1 (2009): 463-466.
- Simha, Aditya, and John B. Cullen. "Ethical climates and their effects on organizational outcomes: Implications from the past and prophecies for the future." *The Academy of Management Perspectives* 26.4 (2012): 20-34.
- Street, Marc D. "Cognitive moral development and organizational commitment: Two potential predictors of whistle-blowing." *Journal of Applied Business Research (JABR)* 11.4 (2011): 104-110.
- VanVoorhis, Carmen R. Wilson, and Betsy L. Morgan. "Understanding power and rules of thumb for determining sample sizes." *Tutorials in Quantitative Methods for Psychology* 3.2 (2007): 43-50.
- Webster, J. Matthew, et al. "The roles of praise and social comparison information in the experience of pride." *The Journal of social psychology* 143.2 (2003): 209-232.
- Wilkinson, Leland. "Statistical methods in psychology journals: Guidelines and explanations." *American psychologist* 54.8 (1999): 594.

## Appendix A

Table 1 Distribution of demographic variables across conditions in Study 1

Name of variable	Distribution per	Anger	$\chi^2$	p	Distribution per	Self-interest	$\chi^2$	p
Gender	Angry: Men N = 53 Women N = 59		0,37	0,54	Fixed pie: Men N = 61 Women N = 47		4,57	0,03
	Calm: Men N = 51 Women = 48				Growing pie: Men N = 43 Women N = 60			
Country of origin	Angry US N = 81 Outside of US N = 31		0,004	0,94	Fixed Pie US N = 76 Outside of US N = 32		0,50	0,47
	Calm US N = 72 Outside of US N = 27				Growing Pie US N = 77 Outside of US N = 26			
First language	Angry English N = 98 Other N = 14		0,09	0,75	Fixed Pie English N = 98 Other N = 10		1,42	0,23
	Calm English N = 88 Other N = 11				Growing Pie English N = 88 Other N = 15			
Age	Angry M=35,22		F(1)	0,83	Growing pie M= 35,19		F(1)	0,79
	Calm M = 35,55		=		Fixed pie M = 35,61		=0,06	
			0,04					

Table 2 Distribution of control variables in Study 2.

Name of variable	Distribution	per	p	Distribution	per	p
	Anger			Self-interest		
Gender	Anonymous:	$\chi^2=$	0,02	Fixed pie:	$\chi^2 =$	0,40
	Men N=29	4,562		Men N = 25	0,19	
	Women N = 15			Women N = 19		
	Non-anonymous:			Growing pie:		
	Men N=20			Men N = 24		
	Women = 26			Women N = 22		
Age	Anonymous:	F(1) =	0,16	Growing pie:	F(1)=	0,08
	M=21,02	1,97		M = 21,09	3,06	
	Non-anonymous:			Fixed pie: M = 20,25		
	M = 20,35					
Number of participants in a group	Anonymous:	F(1) =	0,68	Growing pie:	F(1) =	0,59
	M=7,66	0,16		M = 7,83	0,28	
	Non-anonymous:			Fixed pie:		
	M = 7,80			M = 7,64		
		F(1) =	0,61	Growing pie:	F(1)=	0,93
		0,25		M=3,30	,006	
Extraversion	Anonymous:			Fixed pie:		
	M=3,25			M = 3,29		
	Non-anonymous:					
	M = 3,34	F(1) =	0,99		F(1)=	0,70
Agreeableness	Anonymous:	0,00		Growing pie:	0,14	
	M=4,06			M = 4,09		
	Non-anonymous:			Fixed pie:		
	M = 4,06	F(1) =	0,74	M=4,03	F(1)=	0,69
Conscientiousness	Anonymous:	0,10		Growing pie:	0,15	
	M=3,38			M = 3,39		
	Non-anonymous:			Fixed pie:		
	M = 3,31	F(1) =	0,37	M=3,31	F(1)=	0,32
Neuroticism	Anonymous:	0,78		Growing pie:	0,93	
	M=2,75			M = 2,89		
	Non-anonymous:			Fixed pie:		
	M = 2,89	F(1) =	0,33	M=2,75	F(1)=	0,53
Openness to new experience	Anonymous:	0,95		Growing pie:	0,39	
	M=3,65			M = 3,50		
	Non-anonymous:			Fixed pie:		
	M = 3,47			M=3,62		

Table 3 Factor loadings for Big 5 scale. Study 2

Personality factor	Loading	$\alpha$
<b>Extraversion</b>		0,76
Am the life of the party.	0,81	
Don't talk a lot. (R)	0,82	
Talk to a lot of different people at parties.	0,71	
Keep in the background. (R)	0,69	
<b>Agreeableness</b>		0,78
Sympathize with others' feelings.	0,81	
Am not interested in other people's problems. (R)	0,67	
Feel others' emotions.	0,74	
Am not really interested in others.(R)	0,78	
<b>Conscientiousness</b>		0,71
Often forget to put things back in their proper place. (R)	0,86	
Like order.	0,68	
Make a mess of things. (R)	0,76	
<b>Neuroticism</b>		0,76
Have frequent mood swings.	0,84	
Get upset easily.	0,76	
Seldom feel blue. (R)	0,80	
<b>Openness to new experience</b>		0,79
Have a vivid imagination.	0,82	
Am not interested in abstract ideas. (R)	0,80	
Have difficulty understanding abstract ideas. (R)	0,70	
Do not have a good imagination. (R)	0,82	

Note: Items 3 and 9 were excluded due to loadings lower than 0,60. (R) – reversed items

Table 4 Summary of emotional reaction check across conditions in Study 2

	Loss N	No loss N	X <sup>2</sup>	p
Fear	4	4	0,004	0,94
Enthusiasm	20	18	0,36	0,54
Shame	6	9	0,56	0,45
Anger	14	15	0,006	0,93
Total	46	44		
	Anonymous N	Non-anonymous N		
Fear	4	4	0,004	0,94
Enthusiasm	21	17	1,06	0,30
Shame	10	5	2,27	0,13
Anger	9	20	5,45	0,01
Total	44	46		90

Table 5 Results of Logistic regression with Reporting the wrongdoing as dependent variable

	Model 5	Model 6	Model 7	Model 8
Constants	-0,96	-1	-2,7	-3,91
Self-interest	0,08	0,27	0,24	0,47
Anonymity	-0,18	0,02	0,05	0,65
Self-interest x anonymity		-0,40	-0,20	-0,62
Age			0,05	0,01
Gender			-0,75	-1,1
Valence				0,26
Arousal				-0,11
Fear				-1,16
Enthusiasm				-1,27
Anger				1,35
Extraversion				0,33
Agreeableness				0,04
Conscientiousness				-0,10
Neuroticism				-0,33
Openness for new experiences				0,64
Model $\chi^2$	0,15	0,17	2,13	19,21*
Pseudo R <sup>2</sup>	0,003	0,005	0,03	0,31

## **Appendix B**

### **Study 1**

#### Introduction

This is a study about decision making. Your participation in this research consists of answering to some questions related to a hypothetical scenario. The goal is to better understand people's behavior in specific contexts.

The study will take about 5-7 minutes and you will receive \$0.50 for your participation. Your answers will be treated anonymously and will be kept confidential. The data collected will be used exclusively for academic purposes. The results of the study are expected to be presented at academic events and to be published in scientific journals.

Your participation is voluntary. You can refuse to answer any question and give up/withdraw your consent to participate at any time.

There are no significant risks of any kind related to your participation in this study.

You must be at least 18 years old to participate in this study.

Feel free to contact me at any time, if needed.

Urszula Gabriela Lagowska, PhD Student FGV-EBAPE Email:  
[urszula.lagowska2013@fgvmail.br](mailto:urszula.lagowska2013@fgvmail.br) Phone: (55)(21)967248419

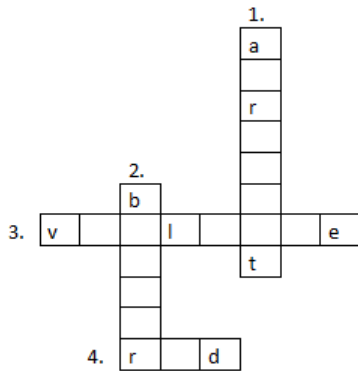
Fundação Getulio Vargas, Brazilian School of Public and Business Administration

By clicking on the *button below* you declare to be aware of the full content of this CONSENT AGREEMENT and agree to participate in the proposed study, knowing that you can withdraw your participation at any time.

#### Anger priming condition

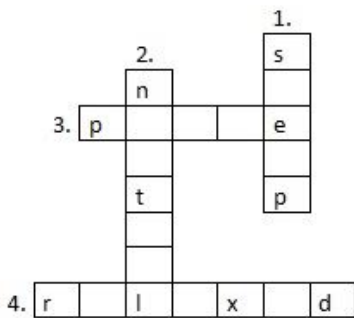
Before the actual study begins, we would like to make sure you are focused.

Please kindly complete the crossword by writing the answers in the correct line:



1. An insulting way of behaving that comes from believing that one is better, smarter, or more important than other people.
2. To annoy someone.
3. Exertion of physical force so as to injure or abuse.
4. Having a color of blood.

### Neutral condition



1. The natural state of rest during which your eyes are closed.
2. Not aligned with, supporting, or favoring either side in a dispute.
3. The normal, non-warring condition of a nation.
4. Being free of or relieved from tension or anxiety.



### Common part

Thank you! Now, imagine the following situation:

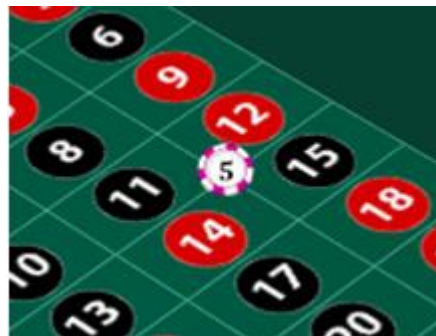
Along with 9 other participants, you are invited to come to a research room to participate in a study about risky decision-making in exchange for a \$10 participation fee. Your task is to play a roulette game. To make it real, you are given the opportunity to wager **up to \$5 of your own participation fee** in this upcoming roulette game. You can wager any amount from **\$0 (not gamble)** to **\$5**. **Since this is your own money, it is up to you to decide on whether/how much to wager.**

### Bets

The roulette wheel contains 18 black and 18 red numbers plus 0 and 00. In this particular study, you either bet on **colour** or on **corner**. It means that you will be betting on four specific numbers in a square layout. The figure below exemplifies this option.



Bet on color



Bet on corner

### Joint and Public Wagering Decision

Your first decision is whether or not you are going to wager any amount (from \$1 to \$5). You can choose to NOT gamble. If you decide you WILL wager, you must decide how much (minimum of **\$1** to maximum of **\$5 of your own participation fee**).

The decisions are made public. All 10 participants come to the whiteboard in the research room and, at the same time, write down their decision on (a) whether and, if so, (b) how much to wager. After all individual decisions have been made, the roulette game starts with one of the

participants simply throwing the ball and spinning the roulette wheel. The outcome is then revealed to all.

To avoid interfering with the decision process, the researcher leaves the room during the entire decision and outcome period. Only the participants stay in the room.

1. Would you wager any amount? Yes/No
2. Where would you bet? Color/Corner
3. How much? \$1 \$2 \$3 \$4 \$5

#### The Outcome of the Gamble

Now imagine that after going through the roulette game, three outcomes became clear:

(1) You lost whatever you decided to wager;

(2) Nobody in the room WON more than **\$8 extra** (that is, a few people wagered **\$1** and WON).

Because the researcher had excused him/herself from the room during the gambling session, each participant had to inform the researcher his/her name, wagered amount, corner, and final earnings in a score sheet so as to get paid accordingly.

A few minutes later, the researcher comes in, collects all the score sheets and goes to another room to take the money and to put it in private envelopes along with the score sheet.

#### Distributing the Leftovers (visible only to the participants in the fixed pie condition)

On his/her way out, the researcher says that in case the participants are not lucky enough to empty the "researcher's pocket", the researcher will equally distribute among all participants whatever money is left.

### Making the Payment

When the researcher eventually comes back to the research room, he says:

"Thank you for taking part in our experiment. We much appreciate it. Here is your envelope with the score sheet and respective payment."

When he approaches Peter, the last participant to receive the envelope, he says:

"Let me now congratulate Peter. **He won \$40!**" (In the fixed pie condition additionally: Unfortunately, because of lucky Peter, our budget has been exhausted so there is no money left to be equally distributed among all of you")

### Reacting to the Cheating

Peter clearly cheated. He actually bet \$2 and lost! Since Peter knows that everybody is aware of his cheating, he leaves the room right after the researcher.

Twenty-four hours later, all the participants receive a standard follow-up email:

"Thank you for participating in our study. We really appreciate your help. We would like to repeat the experiment, so your feedback is quite valuable. Do you have any suggestions on how to improve the procedure or the game we used in this study?"

Imagine that you are facing this situation for real and answer the questions below.

Important:

- (1) THERE ARE NO RIGHT OR WRONG ANSWERS.
- (2) PLEASE READ BOTH QUESTIONS BEFORE ANSWERING THEM.

1. Would you reply to the researcher's email informing the wrongdoing – that is, that a cheating incident took place in the room?

Definitely No

Probably No

Probably Yes

Definitely Yes

2. Would you explicitly mention the wrongdoer - that is, that Peter was the cheater?

Definitely No

Probably No

Probably Yes

Definitely Yes

3. Could you please justify your answer to the previous questions?

#### Manipulation checks

1. Now we want to assess your understanding of the scenario: Please answer it carefully. Please indicate which of these two statements were in the text:

“Let me now congratulate Peter. He won \$40!”

“Let me now congratulate Peter. He won \$5!”

2. Was the statement below present or absent in the text?

“Unfortunately, because of lucky Peter, our budget has been exhausted so there is no money left to be equally distributed among all of you”

#### Demographic questions

1. What is your age?

2. What is your gender? Male / Female

3. What is the highest degree or level of school you have completed? If currently enrolled, highest degree received.

Nursery school to 8th grade

High-school graduate, diploma or the equivalent

Trade/technical/vocational training

Bachelor's degree

Master's degree

Professional degree

Doctorate degree

4. What is your country of residence?

5. What is your country of origin?

6. What is your first language?

### **Study 2 - Questionnaire 1**

**PARTE I – PRÉ-JOGO** As afirmativas dispostas a seguir descrevem comportamentos individuais.

Utilizando a escala de avaliação abaixo, classifique as afirmativas de acordo com o quanto a mesma descreve você atualmente - como você é hoje, e não como você deseja ser no futuro. Avalie as afirmativas pensando em como você se sente, honestamente, em relação a outras pessoas que você conhece do mesmo sexo e de idade aproximada. Leia cada item atentamente, indicando com um X o grau de concordância. Considere: 1. Totalmente errado; 2. Parcialmente errado; 3. Nem certo nem errado; 4. Parcialmente certo; 5. Totalmente certo

Item					
Eu sou a alma da festa	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eu simpatizo com os sentimentos dos outros	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Faço minhas tarefas assim que as recebo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tenho mudanças de humor frequentes	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Possuo uma imaginação vivaz	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eu não falo muito	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eu não estou interessado nos problemas dos outros	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Muitas vezes eu me esqueço de retornar as coisas aos seus devidos lugares	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eu estou relaxado a maior parte do tempo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eu não estou interessado em ideias abstratas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eu converso com muitas pessoas diferentes em festas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sinto as emoções dos outros	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Gosto de ordem	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fico nervoso facilmente	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tenho dificuldade em entender ideias abstratas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Fico mais no plano de fundo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eu não estou realmente interessado nos outros	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Eu faço uma bagunça com as coisas	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Raramente me sinto triste	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Não tenho uma boa imaginação	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

## PARTE II – APÓS O JOGO

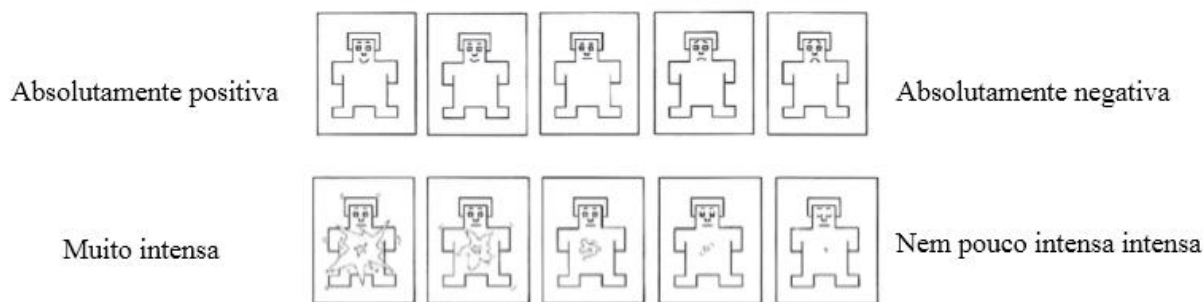
Qual foi o número sorteado? \_\_\_\_\_(número e cor)

Quanto e qual foi a sua aposta? \_\_\_\_\_

(valor e local)

Gostaríamos de verificar se você estava atento durante o jogo. ***O pesquisador mencionou que há um limite de dinheiro a ser distribuído e no caso de sobra, esta sobra será igualmente dividida entre os participantes??*** Sim Não

Indique, por favor, **nas duas escalas de manequim**, qual foi a sua reação emocional sobre o experimento de roleta.



Por favor, indique um único conjunto de emoções que melhor representa como você se sente agora, após participar no experimento:

Medo / Ansiedade / Nervosismo

Entusiasmo / Animação / Diversão

Desconforto / Vergonha / Incômodo

Raiva / Irritação / Indignação

Lembre-se que o experimento será utilizado num projeto de pesquisa sobre o comportamento individual.

**Portanto, relate no espaço abaixo qualquer problema, críticas, sugestões e/ou comentários sobre o experimento da roleta. Seu relato é crucial para aprimorarmos a condução do nosso estudo!**

**Escreva aqui qual você acha que foi o objetivo do experimento:**

(Non-anonymous condition)

Nome: \_\_\_\_\_ Qual a sua idade? \_\_\_\_\_ Qual seu gênero? F M

## Study 2 – Questionnaire 2

### III – FINAL

1. No experimento da roleta, você notou um comportamento de roubo ou trapaça?  
Sim Não

**2. Se sim, você informou ao experimentador no espaço de relato do questionário anterior?**

Sim

Não

**3. Caso tenha notado, mas não informou ao experimentador, por favor justifique abaixo:**