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Do moral commitments and religiosity matter for honesty? Experimental evidence on the size of monetary incentives

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Abstract

This study examines the extent to which the size of monetary incentives in an unobserved setting affects the self-maintenance concept (Mazar, Amir and Ariely, 2008), which suggests that not everyone would cheat to the extent that it compromises how they see themselves. In addition, we also investigate the interplay between moral values, religiosity and dishonesty in the same setting while varying the size of monetary incentives. The current study first assessed participants' moral values and religiosity without being informed of its objectives. The extensively used die-rolling game developed by Fischbacher and Follmi-Heusi (2013) was then conducted to elicit the participants' cheating behavior. Our experimental findings did not provide evidence that moral values and religiosity could contribute to ethical decision-making when individuals were allowed to cheat without the risk of detection. Nevertheless, a substantial decrease in monetary incentives led to significant partial lying and insignificant maximal lying, suggesting that the self-maintenance concept can be reinforced with smaller monetary incentives. From a practical implication standpoint, the government agencies or private companies seeking to reduce cheating behavior should avoid allocating large travel budgets to a small group of unsupervised staffs to deal with clients. Instead, the company should allocate a small travel budget to more sale staffs to deal with the same number of clients.

JEL classification code: C93, D63

1. Introduction

Lying is prevalent in various aspects of our lives. The effectiveness of an institution's financial development often hinges on the honesty of its employees. Research in behavioral economics offers insights into the positive relationship between the size of monetary incentives and cheating behavior (Kajackaite and Gneezy, 2017). Corruption cases reported across the globe involved a huge amount of money, such as US$4.5 billion funds of 1Malaysia Development Berhad (1MDB) Scandal were siphoned by high-ranking officials of 1MDB and their partners in 2017 (Bernama, 2024), and cash bribery worth of $500,000 was received by Navy officials and defense contractors from a former military defense contractor in exchange for revealing classified information (New York Post, 2024). These reports provide evidence that individuals become increasingly motivated to cheat to maximize their welfare when being tempted by a huge amount of money. In the meantime, the reports above also beg a question of whether the effect of moral values and religiosity in reducing dishonesty holds in all sizes of monetary incentives.

Recent experimental studies by Crede and von Bieberstein (2020), Gerlach, Teodorescu and Hertwig (2019), Jiang (2013), Potters and Stoop (2016) have revealed that a significant number of individuals engage in cheating behavior in the die-rolling game developed by Fischbacher and Follmi-Heusi (2013). Based on self-maintenance concept (Mazar, Amir and Ariely, 2008), not everyone would cheat to the extent that it compromises how they see themselves. For example, in the die-rolling game, the presence of partial lying has been observed. Partial liars are known as individuals who engage in dishonesty

without exceeding their moral boundaries. On the other hand, income-maximizing subjects represent an extreme form of dishonest individuals who consistently seek to maximize the benefits of lying.

The extent to which the size of monetary incentives affects self-concept maintenance in unobserved settings has received limited attention in the literature (Follmi-Heusi, 2013; Mazar, Amir and Ariely, 2008). To bridge the gap, we employ a novel experimental design where individuals are not entitled to possess the entire wealth generated from the die game, resembling exclusive economic policies practiced by some governments or discriminatory practices by cooperatives. To evoke a greater effect of monetary incentive, we varied the portion of wealth to be allocated from small to substantial. The findings would therefore provide a better insight into the implication of the self-maintenance concept when individuals are tempted by different sizes of monetary incentives in the unobserved setting where their dishonest behavior cannot be detected at the individual level.

Research on moral behavior, on the other hand, suggests that individuals who espouse strong moral values are more likely to engage in ethical actions, such as refraining from dishonesty (Hilbig and Zettler, 2015; Kleinlogel, Dietz, and Antonakis, 2018; Klein, Thielmann, Hilbig, and Heck, 2020; Reinhardt, Trnka, and Reinhard, 2023). However, it remains unclear whether ethically inclined individuals would uphold their honesty across all sizes of monetary incentives when there is zero risk of detection. Exploring this issue allows us to assess whether professed moral values provide a reliable assurance of honest behavior. For instance, this has important implications for whether government or private agencies should continue to invest in ethics programs that require civil servants or company staff to pledge their commitment to ethical conduct, or whether such programs represent an unnecessary cost.

The rest of the paper is organized as follows: Section 2 reviews the moral commitment models and religiosity, Section 3 outlines the experimental design and procedures, Section 4 describes the data and the results of the analysis, and Section 5 concludes with the implications of the findings.

2. Literature Review

The concept of Honesty-Humility is a foundational component of the moral commitment model, serving as an indicator of an individual's propensity to engage in fair and genuine behavior in their interactions with others (Ashton and Lee, 2008; Ashton *et al.*, 2014). It also encompasses an individual's willingness to forgo rules and principles in order to exploit moral advantages (Ashton and Lee, 2007). Extensive research utilizing the Honesty-Humility measurement has consistently demonstrated a negative correlation between cheating behavior and high levels of honesty-humility, particularly in scenarios involving monetary incentives (Hilbig and Zettler, 2015; Kleinlogel, Dietz, and Antonakis, 2018; Klein, Thielmann, Hilbig, and Heck, 2020; Reinhardt, Trnka, and Reinhard, 2023). Furthermore, individuals with elevated levels of honesty-humility have been found to be more inclined to reject cheating and bribery offers in situations that promote corrupt collaboration (Ścigała, Schild, Heck, and Zettler, 2019; Vranka and Bahník, 2018).

In addition to honesty-humility, non-trade-off protected values (PVnt) and the response to compromising protected values (PVrc) are moral commitment models that individuals frequently consider when making ethical decisions. PVnt investigates the degree to which individuals are willing to compromise non-trade-off protected values, such as integrity and incorruptibility, for personal gain (Atran, Axelrod, and Davis, 2007; Baron and Spranca, 1997; Tanner and Medin, 2004). Conversely, PVrc-related inquiries seek to capture individuals' responses when the violation of ethical principles will have a negative impact on public welfare (Tanner, Linder, and Sohn, 2022). Tanner et al. (2022) demonstrate that these values significantly influence corruption games, where the offer and acceptance of bribery were inversely associated with individuals exhibiting higher levels of PVnt and PVrc.

According to the psychological literature, individuals who are dedicated to upholding moral duty (e.g., refraining from telling lies) are classified as deontologists (Armstrong, Friesdorf and Conway, 2019). Conversely, those who often seek welfare maximization by exploiting their moral commitments are known as consequentialists (Megías, de Sousa ad Jiménez-Sánchez, 2023; Kant, 2002). This implies that consequentialists consistently evaluate the costs and benefits of the original outcome when seeking the optimal decision (Everett et al., 2016). For example, when confronted with a moral dilemma in a Trolley problem (Foot, 1967), consequentialists have no issue sacrificing one life to save a greater number of lives, while deontologists opt to uphold their moral commitment by not sacrificing any life. Generally, research suggests that deontologists tend to demonstrate a stronger adherence to existing norms (Hunt and Vitell, 2006; Rendtorff, 2015; Vitell and Hunt, 2015; Wiltermuth, Bennett, and Pierce, 2013). As a result, they are more ethical (Xu and Ma, 2016), more pro-social (Kreps and Monin, 2014), and more intolerant of corruption (Megías, de Sousa and Jiménez-Sánchez, 2023) compared to consequentialists.

Religiosity also plays a significant role in shaping individuals' ethical behavior (Azar and Applebaum, 2020; Desmond, Rorie and Sohoni, 2023). Studies have indicated that individuals who identify as religious often demonstrate higher levels of moral sensitivity and are motivated by religious teachings to uphold moral principles (Pichon et al., 2007; Shariff and Norenzayan, 2007). In the context of the die-rolling experiment, young religious females exhibited the highest level of honesty (Arbel, Bar-El, Siniver and Tobol, 2017). Consistent with this finding, the level of honesty increased with the priming of religious words (Arbel et al., 2014) and religious worship services (Bloodgood et al., 2008). The belief in divine punishment also serves as an internalized guideline for religious participants to uphold their moral principles (Hilbig et al., 2013). DeBono et al. (2017) seemingly validated the effect of divine punishment. The findings showed that experimental participants were less prone to cheating after writing a short essay about punishing God who stole money, as compared to the other group of participants who wrote about forgiving God.

Based on the above literature, the effect of moral values such as PVnt, PVrc, deontological preference and religiosity in reducing dishonesty in an unobserved setting with different sizes of monetary incentives remains unexplored. To bridge the gap, we incorporate the moral values into our experimental design, where the die rolling game is used to motivate individuals to cheat without fear of being caught.

3. Experimental Design

The experiments were conducted in the behavioral labs of two local universities from October 2022 to February 2023. A total of 274 undergraduate students, aged between 20 and 24 years and from various faculties, were recruited to participate in the study. The recruitment process was carried out through class announcements and word of mouth. This study was conducted in accordance with ethical guidelines from the respective university ethics committees. As the research was non-invasive, we obtained informed consent from the respondents for their participation.

2.1 Experimental Procedure

Upon arrival, participants were randomly assigned to a computer station, where they were presented with an online survey and a die on the table. In the first stage of the experiment, they were instructed to complete the survey without being informed of its nature or objectives. The survey was designed to elicit the participants' moral values, religiosity, and deontological preferences. In the second stage, a die-rolling game (Fischbacher and Föllmi-Heusi, 2013; Jiang, 2013; Potters and Stoop, 2016) was used to prompt them to cheat with a greater perception of getting away with cheating.

Four treatments were conducted: Substantial Monetary Incentive (SMI) treatment, Huge Monetary Incentive (HMI) treatment, Moderate Monetary Incentive (MMI) treatment, Low Monetary Incentive (LMI) treatment. Participants in the SMI treatment were entitled to receive full monetary payoffs generated from the die game, while participants in the other treatments only received 70% (Huge Monetary Incentive), 50% (Moderate Monetary Incentive) or 30% (Low Monetary Incentive) of the payoffs. To mitigate potential learning effects, each participant only took part in one treatment.

2.1.1 The first stage of the experiment: Survey on Individuals' Moral commitments, Religiosity and Moral Preferences.

Upon entering the lab, participants were asked to complete a series of questions on the assigned computer. The primary objective of the questions was to elicit information pertaining to their protected values, religiosity, and moral preferences.

Table I: Measure of Protected Values

There are situations where two individuals can engage in an arrangement that has positive consequences for these two individuals, but negative consequences for an unrelated third individual. Some view such arrangements as a violation of integrity; others regard it as acceptable protection of personal interests.

To what extent do you agree with the following statements? (1 = *strongly disagree*, 7 = *strongly agree*)

Integrity is something…

1. that one should not sacrifice, no matter what the (material or other) benefits are.
2. for which it is right to make a cost-benefit analysis. (R)
3. that cannot be measured in monetary terms.
4. about which one can be flexible if the situation demands it. (R)

Note: R refers to a reversed statement.

Based on Table I, PVnt explores the extent to which individuals are willing to sacrifice integrity and incorruptibility, which are considered non-negotiable, for personal gains (Atran, Axelrod, and Davis, 2007; Baron and Spranca, 1997; Tanner and Medin, 2004). We used all the statements, both reversed and non-reversed, from Table I with a 7-point scale to measure individuals' propensity to exploit these values for their benefit. To standardize the scores of PVnt, we coded the individuals' responses to all reversed statements in the opposite direction of the 7-point scale. As a result, in our data entry, a rating of 7 indicates that individuals are least willing to exploit their protected values, while a rating of 1 suggests the opposite.

Another subscale, PVrc (reaction to compromising protected values), was developed to assess individuals' responses to potential compromises of ethical principles. This measure involved presenting participants with two distinct workplace scenarios, each depicting a situation involving the offer of a bribe. Using a 5-point scale, participants were asked to rate the extent to which they found the act of proposing or accepting such an offer acceptable or praiseworthy, based on their own perspective. Detailed information regarding the scenarios and response options can be found in Table II.

Table II: Measure of Protected Values RC

Situation 1: Consider a patient offering his/her doctor an invitation to a fine dining restaurant to get an appointment earlier than another patient and the doctor accepts the invitation.

What do you think about people proposing such an offer (such as e.g. the patient)?

1. -2 *= not at all praiseworthy,* +2 *= very much praiseworthy (R)*
2. -2 *= not at all blameworthy,* +2 *= very much blameworthy*
3. -2 *= not at all outrageous,* +2 *= very much outrageous*
4. -2 *= not at all acceptable,* +2 *= very much acceptable (R)*

What do you think about people accepting such an offer (such as e.g. the doctor)?

5. -2 *= not at all praiseworthy,* +2 *= very much praiseworthy (R)*
6. -2 *= not at all blameworthy,* +2 *= very much blameworthy*
7. -2 *= not at all outrageous,* +2 *= very much outrageous*
8. -2 *= not at all acceptable,* +2 *= very much acceptable (R)*

Situation 2: Consider a company manager offering the local municipality's Department of Planning & Building money to get permission to build a new factory in a nature reserve. The head of the local Department of Planning & Building accepts the offer.

What do you think about people proposing such an offer (such as e.g. the company manager)?

1. -2 *= not at all praiseworthy,* +2 *= very much praiseworthy (R)*
2. -2 *= not at all blameworthy,* +2 *= very much blameworthy*
3. -2 *= not at all outrageous,* +2 *= very much outrageous*
4. -2 *= not at all acceptable,* +2 *= very much acceptable (R)*

What do you think about people accepting such an offer (such as e.g. the head of the local Department of Planning & Building)?

5. -2 *= not at all praiseworthy,* +2 *= very much praiseworthy (R)*
6. -2 *= not at all blameworthy,* +2 *= very much blameworthy*
7. -2 *= not at all outrageous,* +2 *= very much outrageous*
8. -2 *= not at all acceptable,* +2 *= very much acceptable (R)*

Note: R refers to a reversed statement

The PVrc construct is designed to assess individuals' responses to violations of ethical principles that have a negative impact on the welfare of the public (Tanner *et al.*, 2022). The questionnaire from Table II was used to measure participants' PVrc scores. Of the sixteen statements, eight were reversed statements. In our data entry, participants' reactions to non-reversed statements were coded on a 5-point scale. For reversed statements, their reactions were coded in the opposite direction of the 5-point scale. Therefore, a rating of 5 indicates that individuals are least willing to compromise their protected values, while a rating of 1 suggests that individuals are most willing to compromise their protected values.

We next employed the two questions from Table III to assess the participants' religiosity with a 5-point scale. A rating of 5 reflects the participants were very religious while a rating of 1 suggests that the participants were not religious at all.

Table III: Measure of Religious Strength

1. How religious would you describe yourself? (1 = *not at all religious*, 5 = *very religious*) 2. How important is your religion / your faith to you? (1 = *not at all important*, 5 = *very important*)

Thereafter, the participants were presented with a sacrificial moral dilemma question used extensively in the literature (Foot 1967; Greene *et al.*, 2008) as shown in Figure 1.

Based on Figure 1, a train was heading to bang the five workers while the other worker on another railway was not in danger. The participants were told that they were the "person" in charge of the lever situated next to the railway who could decide the lives of the six workers. Assuming the six workers were not aware of the oncoming train, they had to choose between Option 1: Do nothing and let the train bang the five workers or Option 2: Diverting the train to bang the single worker and save the five workers. Participants who chose option 1 or option 2 were regarded as Deontologists or Consequentialists respectively.

2.1.2 The second stage of the experiment: Die Game

Upon answering the survey, the Z tree program was activated on each participant's computer. The participants from all treatments were then briefed on the die-rolling game with written instructions. The game provides individuals with complete freedom to cheat and claim high financial payoffs without any risk of being detected (Fischbacher and Föllmi-Heusi, 2013; Jiang, 2013; Potters and Stoop, 2016). The details of four treatments are reported as follows.

The participants in the Substantial Monetary Incentive treatment (SMI) were informed that the monetary payoffs they would receive depended on the outcome of a rolled die. Specifically, they were told that they would receive RM10 for rolling a 1, RM20 for rolling a 2, RM30 for rolling a 3, RM40 for rolling a 4, RM50 for rolling a 5, and no payment for rolling a 6. Subsequently, the six outcomes with different monetary payoffs were displayed on the computer screen to create a temptation for the participants to cheat. Following this, they were instructed to roll the die and input the outcomes into the computer. This process allowed the experimenter to pay them according to their self-reported outcomes.

In the other three monetary treatments, the rules of the die game were the same as in the SMI treatment. The only difference is that the participants were not entitled to the full payment in the die game, resulting in substantially lower payoffs than in the SMI treatment. The participants were told that they could only receive a predetermined portion of earnings depending on the throw of the die.

High Monetary Incentive Treatment (HMI): The participants were entitled to 70% of the payoffs they could earn from the die game while the remaining 30% was allocated to the recipients outside the

behavioral lab. Assume the participant reports having rolled out the number 5. Therefore, the participants' final payoff is RM35 (RM50 x 70%).

Moderate Monetary Incentive Treatment (MMI): In this treatment, 50% of the potential payoffs was allocated to the participants and the recipients.

Low Monetary Incentive Treatment (LMI): In this treatment, the participants possessed an extremely low portion of the profit. 30% of the potential payoffs from the die game was allocated to the recipients.

The final payoffs the participants could receive were presented to them before they were required to roll the die. Based on the experimental design above, it is evident that the monetary incentives used to tempt the participants to cheat decrease from SMI treatment to LMI treatment, enabling the present study to investigate the association between cheating temptation and the size of monetary incentives.

2.2 Measure of dishonesty

Fischbacher and Föllmi-Heusi (2013) found that participants in their study exhibited different types of behavior – Income-maximizing subjects, partial liars, and honest subjects. The expected value for participants who roll any outcome is 0.1667 (1/6). Income-maximizing subjects were those dishonest participants who aimed to maximize their income by misreporting the highest payoff (RM50) as their financial gain. Participants who engaged in cheating behavior and reported the second-highest payoff (RM40) as their financial gain were classified as partial liars. On an aggregate level, therefore, the presence of income-maximizing subjects and partial liars was considered significant when the proportion of the respective reported payoff was above 0.1667 at the 10%, 5%, or 1% significance levels. In contrast, honest subjects were those who reported earning zero payoffs.

To validate the presence of income-maximizing subjects and partial liars, we utilized a two-tail binomial test. This approach allowed us to rigorously evaluate the prevalence of different types of dishonest behavior in our study.

From the design, we form the following hypotheses:

Hypothesis 1: Cheating behavior should be prevalent across all treatments due to the zero risk of detection.

Reason: When individuals are aware that their dishonest actions cannot be detected, the gain from cheating (i.e. the improvement of personal well-being) increases substantially.

Hypothesis 2: Self-maintenance concept should be more prevalent when the size of monetary incentives reduce substantially.

Reason: The literature has documented a positive relationship between the size of monetary incentives and cheating behavior (Kajackaite and Gneezy, 2017). Thus, we should expect a higher proportion of partial liars as the die game progresses from the SMI treatment to the LMI treatment.

Hypothesis 3: Dishonesty should be negatively correlated with moral commitments, religiosity and deontological preferences, regardless of the size of monetary incentives.

Reason: Individuals with stronger adherence to non-trade-off protected values (PVnt), higher intolerance to compromising protected values (PVrc), higher level of religiosity and deontological preference tend to possess high moral boundaries. This suggests that these individuals are less inclined to engage in dishonest behavior.

4. Results

Figure shows the overall outcomes of the die game. There were 81 subjects in the SMI, 70 subjects in HMI treatment, 52 in MMI treatment, and 71 in LMI treatment. The frequency of the six different outcomes reported by our experimental subjects was illustrated in the table.

We next present the distribution of the six outcomes for each treatment based on the information indicated in Figure 2. We then examine the three characteristics identified in the paper by Fischbacher and Föllmi-Heusi (2013). Figure 3 reveals the proportion of subjects who claimed to have cast different numbers in the dice game for each treatment.

Based on Figure 3, in the SMI treatment, the highest proportion of reporting was number 5 followed by number 4. (The combined percentage of these two groups is 54.3% (29.6% + 24.7%). The proportion of reporting 5 and 4 was above the expected value of 0.1667 at the 1% (Binomial Test, p=0.0026) and 5% (Binomial Test, p=0.0418) levels, respectively. Honest subjects who claimed number 6 (honest subject) are only 3.7% significantly lower than the benchmark average percentage of 16% (Binomial Test, p=0.0003).

In the HMI treatment, the combined proportion of participants who reported number 5 and number 4 is 48.5% (31.4% + 17.1%). In terms of statistical validity, the fraction of income-maximizing subjects was significant at 1% (Binomial Test, p=0.0017) while the fraction of subjects who reported number 4 was insignificant (Binomial Test, p=0.180). The fraction of honest subjects was significantly lower than the expected value of 0.1667 (Binomial Test, p=0.0003).

In the MMI treatment, 34.6% of the respondents reported number 4 and number 5 (19.2%). The fraction of partial liars was significantly higher than the expected value of 0.1667 (Binomial Test, p=0.0013). and 5 (Binomial Test, p=0.3644) was not significant from the benchmark of 1/6. The presence of honest subjects was not significantly lower than the expected value of 0.1667 (Binomial Test, p=0.2141).

Next, in the LMI treatment, 26.8% of the respondents reported number 4 followed by 22.5% number 5. The proportion of reporting 4 was significant at the 1% level (Binomial Test, p=0.0213) above the benchmark value. The statistical difference was not significant for number 5 (Binomial Test, p=0.1235) from the benchmark. Also, the presence of honest subjects was not significant (Binomial Test, p=0.1424).

So far, we observe that significant majority of the participants are either income maximisers, or partial liars across all the treatments, proving that cheating is motivated by the zero risk of being detected/caught. These findings, therefore, support our Hypothesis 1. The combined proportion of these two categories was about 50-60% of the total participants in each treatment. Notably, when comparing with SMI treatment, the fraction of income-maximizers was insignificant while the partial liars were significantly more prevalent in MMI and LMI treatments. These finding suggests that the self maintenance concept can be better reinforced with a smaller monetary incentives, subtly priming individuals' tendency to engage in partial lying. As such, our Hypothesis 2 is validated.

We next look into the association of the seven independent variables (PVnt scores, PVrt scores, Religiosity scores, Moral Preferences and the dependent variable (the self-reported payoffs) in all four treatments. To analyse the relationship, we employed an Ordinary Least Square Regression model. In the regression, Deontologists were coded as 1, while Consequentialists were coded as 0. Table IV shows the result of the regression.

Table IV: The Ordinary Least Square Regression

Independent Variable	SMI Treatment	HMI Treatment	MMI Treatment	LMI Treatment
Constant	21.290**	48.317***	14.251	21.929*
	(11.238)	(13.379)	(14.943)	(12.22)
PVnt	1.995	0.252	0.359	0.938
	(1.918)	(2.827)	(2.855)	(2.213)
PVrc	0.135	-2.88	1.882	-0.673
	(2.133)	(3.323)	(2.573)	(2.186)
Religiosity	0.954	-1.8	3.062	1.836
	(1.717)	(2.028)	(2.119)	(2.033)
Moral Preferences	-0.836	-1.928	-1.446	3.454
	(3.972)	(4.287)	(4.524)	(4.213)
Observation	81	70	53	70
R-squared	0.021	0.026	0.061	0.022

Note: *** statistically significant at 1 percent level, ** statistically significant at 5 percent level and * statistically significant at 10 percent level. Standard error in parentheses.

Based on Table IV, the effect of PVnt, PVrt, Religiosity, Moral Preference on dishonesty is generally not statistically significant across all four treatments. For instance, the negative coefficient shown by Moral Preferences in SMI, HMI, and MMI treatments suggests that Deontologists tend to report lower payoffs than Consequentialists, however, the difference is not strong and consistent. Thus, the results of the table above did not support our Hypothesis 3, which postulate that individuals with a high level of moral commitments are less inclined to engage in dishonest behavior when they have an opportunity to cheat without the risk of detection.

5. Discussion and Conclusion

The main objective of the paper is to investigate the interplay between moral commitments, religiosity, deontological preferences, the size of monetary incentives on dishonesty in an unobserved setting. We conducted the cheating experiment using the die-rolling game in the behavioral lab.

The experiment began with an online survey assessing participants' moral commitment and religiosity, followed by a die-rolling game in which participants could cheat for higher financial gains without explicit monitoring. The participants from the Substantial Monetary Incentives treatment were entitled to receive full earnings (X) generated from the die game while the participants from other treatments received lesser earnings with B*X where 0 < B < 1. When the participants were not explicitly monitored on the outcomes of the rolled die, majority of individuals cheat in all treatments due to the zero risk of being caught.

The findings from our experimental study did not provide evidence that moral commitments such as PVrc, PVnt, religiosity and deontological preference could contribute to honest decision-making when individuals were allowed to cheat without the risk of detection. Nevertheless, we found that a small monetary incentive significantly reduced the individuals maximum cheating behavior in an unobserved setting. These observations were supported by the two-sided binomial test; the fraction of income-maximizers was insignificant while partial liars being the significant fraction in the Moderate Monetary and Low Monetary incentive treatments. These patterns contribute to the literature by showing that smaller monetary incentives help reinforce the self-maintenance concept, which discourage individuals to engage in maximum lying that tarnish their self-reputation (Mazar et al., 2008).

The present research also has implications from a practical point of view. Given that individuals’ moral values and religiosity are not positively associated with ethical decision-making, the government agencies or private companies seeking to reduce cheating behavior should avoid allocating large travel budgets to a small group of unsupervised staffs to deal with clients. Instead, the company should allocate a small travel budget to more sale staffs to deal with the same number of clients. This is because a big travel budget tends to motivate a small group of unsupervised employees to cheat for maximum financial gain.

Declarations

Author Contribution

Both authors contributed substantially to the conception, design, and execution of the research. Dr. Ch'ng Kean Siang and Dr. Ooi Tze Wei jointly developed the research framework, conducted the experiment, carried out data analysis, and interpreted the results. Dr. Ch'ng Kean Siang took the lead in drafting the manuscript, while Dr. Ooi Tze Wei provided critical revisions and refined the final version. Both authors read and approved the final manuscript.

Ethical Approval Statement: Informed consent was obtained from all student participants prior to their involvement in the study, and their participation was entirely voluntary. All data were anonymized to ensure confidentiality and privacy.

Data Availability Statement: The data that support the findings of this study are available in https://docs.google.com/spreadsheets/d/1EC2t_tNQGScziVRSXDPX1pHEwXEOyycoR2YrAonRsQo/edit?usp=sharing. To protect the confidentiality of student participants, the data have been anonymized.

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Figures

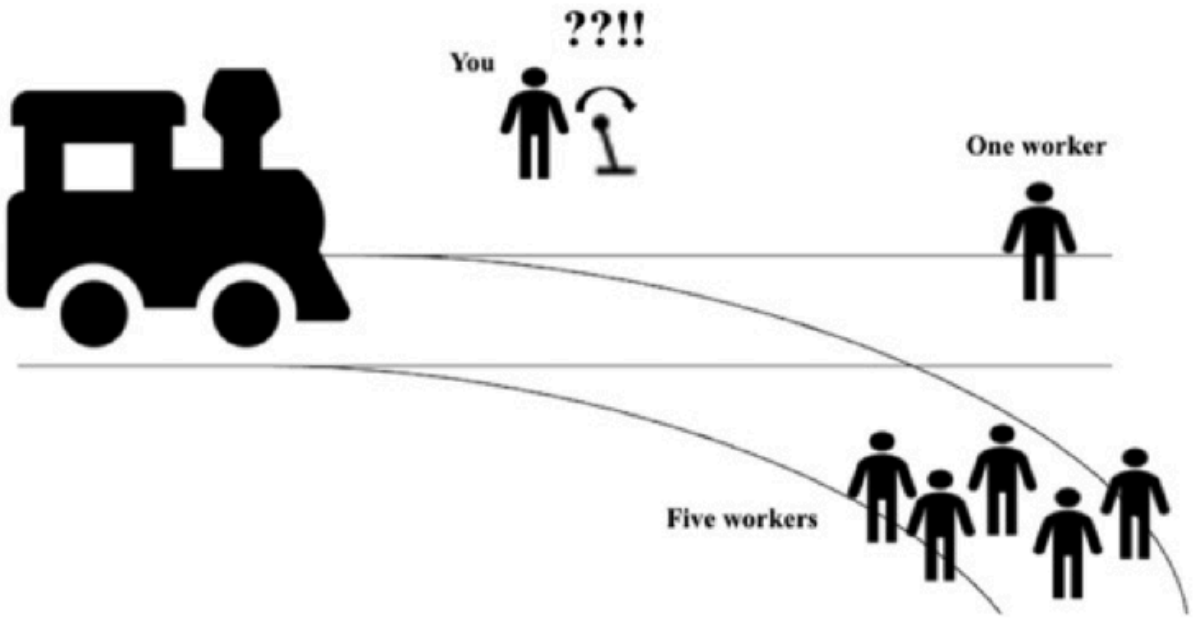
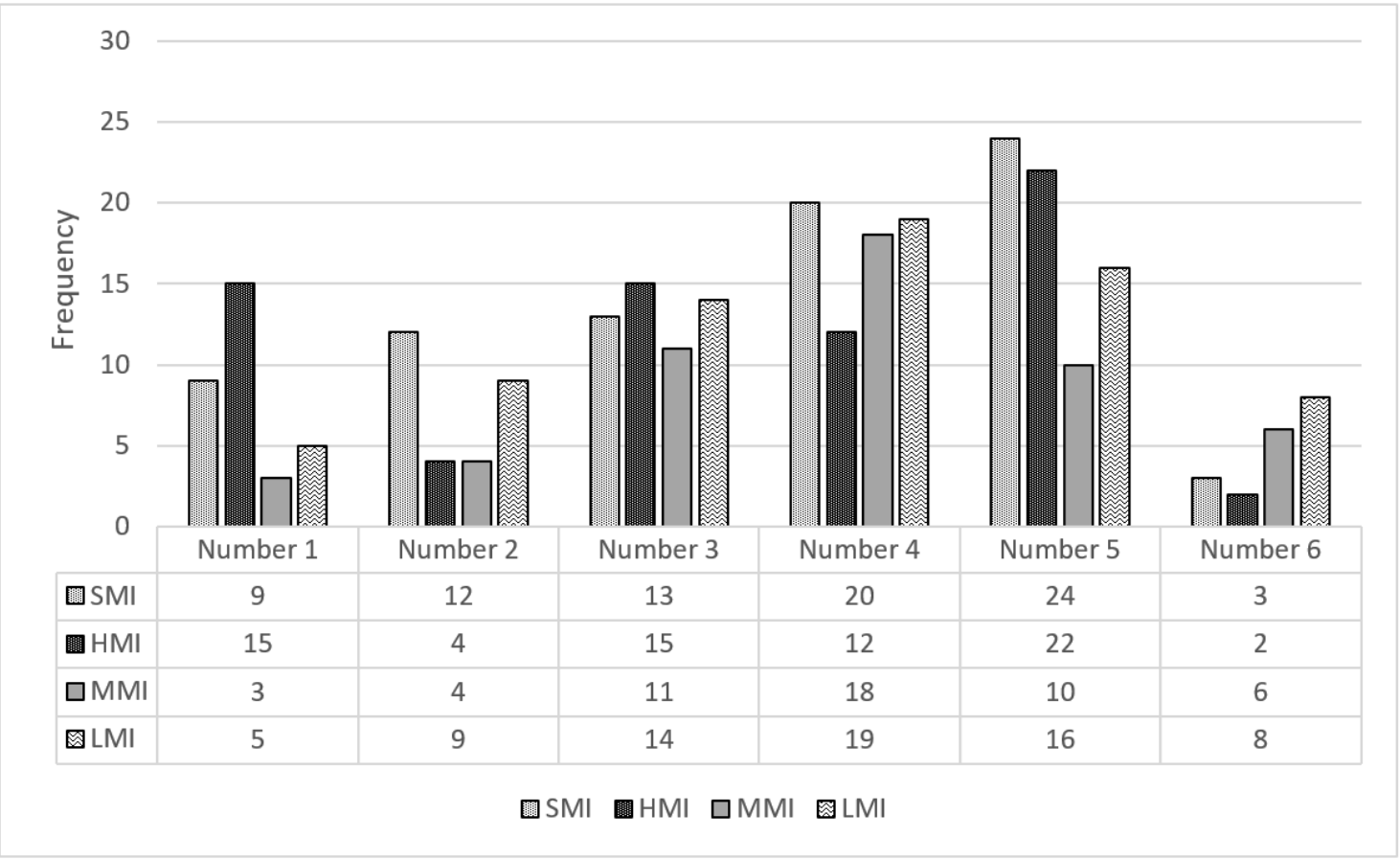


Figure 1

Moral Dilemma



	Number 1	Number 2	Number 3	Number 4	Number 5	Number 6
SMI	9	12	13	20	24	3
HMI	15	4	15	12	22	2
MMI	3	4	11	18	10	6
LMI	5	9	14	19	16	8

Figure 2

Frequency of rolled numbers in all four treatments.

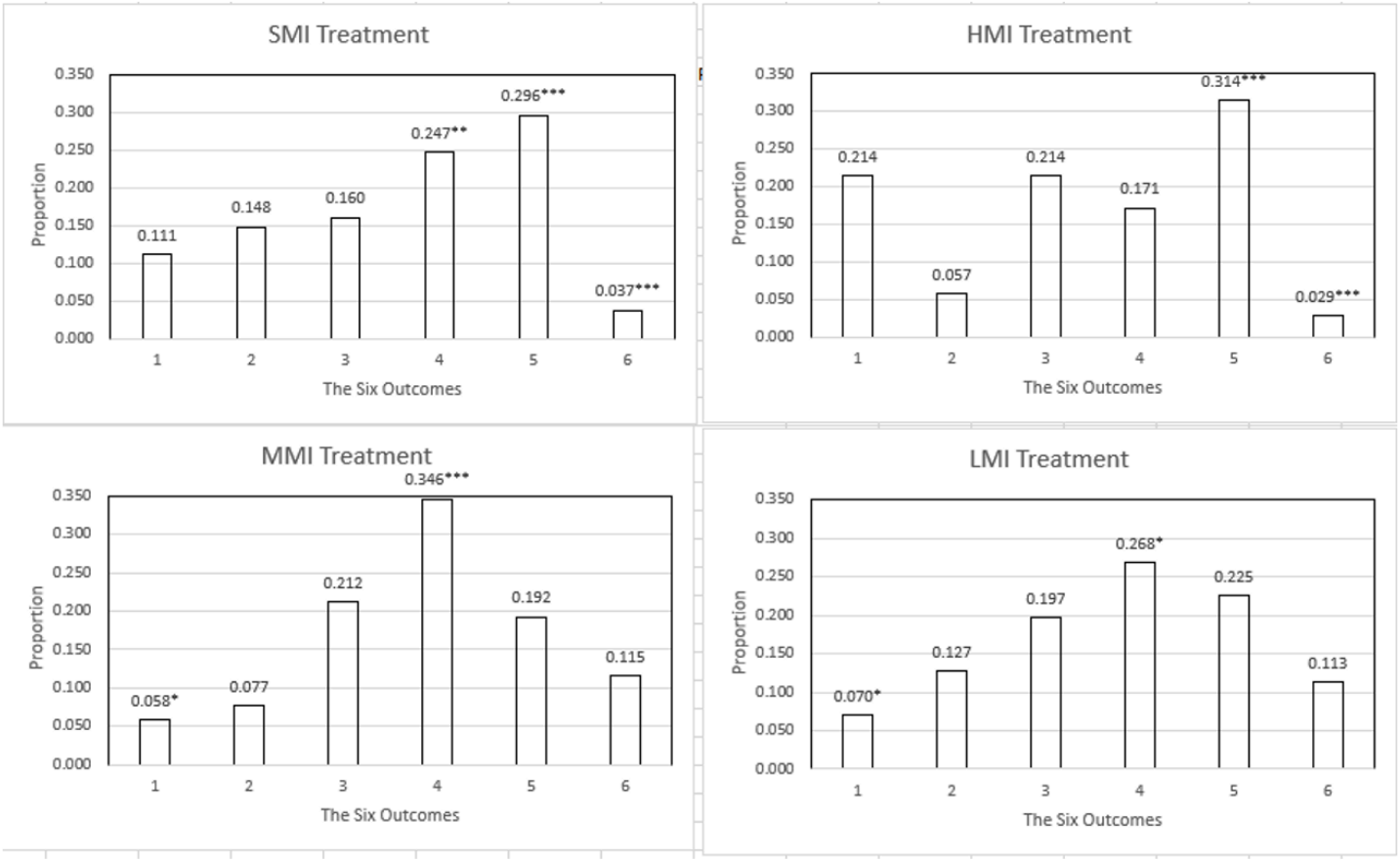


Figure 3

The computed probability of rolled numbers in all four treatments.

Note: *displays the significance of a two-sided binomial test at 10% level, ** at 5% level, and *** at 1% level that the observed fraction differs from 0.1667.