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Subtle Cues and Other-Regarding Behaviors: Evidence from Economic Game Experiments in Thailand

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Abstract

Traditional economic theory has been based on the assumption of human rationality and self-interest motivations. Results from economic game experiments that have been conducted over the past decades have challenged that notion by revealing the evidence of other-regarding behaviors, instead of the equilibrium prediction. In addition to explicit factors, other subtle motivations could play an important role in influencing human behavior. Under the settings of the Prisoner's Dilemma Game and the Dictator Game, watching eyes and flower images were introduced as subtle cues in this study. The results from the experiment on 130 Thai subjects confirmed the importance of prosocial behavior. The flower image raised the generosity level in the Dictator Game, but provided a neutral effect on the cooperation level in the Prisoner's Dilemma Game. Contrary to the findings of previous literature, the watching eyes had no effects on altruistic behavior in the Dictator Game, but its effect was to raise the defection rate in the Prisoner's Dilemma Game. The results suggest that Thais perceive close monitoring as a threat and react in a non-cooperative manner; whilst nature-related subtle cues trigger positive emotions and prosocial behavior.

Keywords: Eye images; Flower images; Subtle cues; Dictator game; Prisoner's Dilemma game

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ปัจจัยกระตุ้นที่ไม่ชัดเจนและความเห็นแก่ผู้อื่น: หลักฐานจากการทดลองเกมเศรษฐศาสตร์ในประเทศไทย

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บทคัดย่อ

ทฤษฎีเศรษฐศาสตร์ดั้งเดิมอยู่ภายใต้สมมติฐานของความมีเหตุผลของมนุษย์และการกระตุ้นโดยความเห็นแก่ตัวเอง ผลจากการทดลองในเกมเศรษฐศาสตร์ในช่วงหลายทศวรรษที่ผ่านมาได้ท้าทายความคิดนั้นโดยพบพฤติกรรมที่เห็นแก่ผู้อื่นแทนที่จะเป็นการคาดการณ์ของดุลยภาพ นอกเหนือจากปัจจัยที่ชัดเจนแล้ว ปัจจัยแฝงอื่นๆ สามารถมีบทบาทสำคัญที่มีอิทธิพลต่อพฤติกรรมมนุษย์ได้ การศึกษาวิจัยนี้อยู่ภายใต้รูปแบบของเกมความลำบากใจของนักโทษและเกมเผด็จการ โดยรูปภาพสายตาจ้องมองและรูปภาพดอกไม้ได้ถูกนำเสนอเป็นปัจจัยกระตุ้นที่ไม่ชัดเจน ผลจากการทดลองโดยอาศัยผู้เข้าร่วมการทดลองคนไทยจำนวน 130 คน ยืนยันถึงความสำคัญของพฤติกรรมที่เห็นแก่สังคม รูปภาพดอกไม้สามารถเพิ่มความมีน้ำใจได้ในเกมเผด็จการแต่กลับไม่มีผลต่อระดับความร่วมมือในเกมความลำบากใจของนักโทษ ผลที่ได้ที่แตกต่างจากงานวิจัยในอดีตคือรูปภาพสายตาจ้องมองไม่มีผลต่อพฤติกรรมความเห็นแก่ผู้อื่นในเกมเผด็จการแต่กลับเพิ่มระดับความไม่ร่วมมือในเกมความลำบากใจของนักโทษ นัยของผลการทดลองคือคนไทยมองการติดตามอย่างใกล้ชิดว่าเป็นการข่มขู่และตอบโต้โดยการไม่ให้ความร่วมมือ ในขณะที่การเตือนที่เกี่ยวข้องกับธรรมชาติสามารถกระตุ้นในเกิดอารมณ์ทางบวกและพฤติกรรมที่เห็นแก่ส่วนรวมได้

คำสำคัญ: รูปภาพสายตา รูปภาพดอกไม้ ปัจจัยกระตุ้นที่ไม่ชัดเจน เกมเผด็จการ เกมความลำบากใจของนักโทษ พฤติกรรมการร่วมมือ

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1. Introduction

Traditional economic models adopt the assumption of rationality, where individuals are motivated by self-interest. Over past decades, this assumption has been challenged, as it has been shown that people's behavior is driven by the influence of others. Human behavior does not strictly follow economic predictions (Mullainathan & Thaler, 2000). As opposed to selfishness, regard for others has proven to be a factor that shaping the decision making process.

Other-regarding behavior is related to the values shared by a society. Trust, altruism, and fairness, for example, are essential human qualities extending beyond the self-interest doctrine. Trust affects the way individuals, corporations, and alliances form (Rotter, 1970). Willingness to trust requires an understanding, and to forego any return or payoff, as well as expectations on how another stranger or trustee will respond. Cooperation or collaborative behavior is an essential component when coupled with trust, to enhance growth and provide further stability and order. Fairness also is crucial to all stakeholders, and serves as a fundamental basis for collaboration. Without fairness, rewards have to be introduced because each stakeholder now becomes concerned with their own individual and financial gain, and lacks a sense of altruism.

Several scholars have adopted game theory with a focus on searching for a better understanding of both self-interest and other-regarding behaviors. They attempted to find a measurement of what motivates decision making, which in turn leads to actions. Economic games which serve this purpose include the Dictator Game and the Prisoner's Dilemma Game.

A dictator is a powerful leader that uses his or her authority to force others to carry out their orders. The Dictator Game is a process which involves 2 players, one with the role of the sender and the other as the receiver. The sender receives an endowment and has to make a decision to share or to allocate that endowment to the partner. Since the receiver has no decision to make, the sender acts as a dictator who controls the outcome of the game. In order to maximize the dictator's payoff, he/she could keep the whole endowment and not allocate any money to the sender. This choice represents the equilibrium prediction of the game. But if the dictator decides to allocate some money to the sender, it could be interpreted as other-regarding behavior (Kahneman, Knetsch, & Thaler, 1986).

The first Dictator Game experiment was conducted by Kahneman, Knetsch, and Thaler (1986). The results revealed that 76 percent of the student subjects decided to divide half of the endowment to anonymous recipient. The researchers claim fairness as the reason for such observations. Not limited to fairness, other-regarding behavior, namely altruism or generosity

could also be the reasons behind subjects' behavior. Moral obligation, for example, could also push the dictators to share part of the endowment to the recipients (Aguiar, Brañas-Garza, & Miller, 2008).

Since then, the Dictator Game experiments have been conducted in a variety of contexts. Engel (2011) examined a meta-analysis from the Dictator Game experiments, which were conducted in several countries since the early 1980s. The results from a total of 129 publications with 616 different sessions pointed out that the average allocation by dictators was 28.35 percent of the endowment. Dictators who gave nothing to the recipients accounted for 36.11 percent, compared to 5.44 percent of the dictators who gave away the whole pie, and 16.74% who decided to share half of the endowment. In the case of Thailand, Chanthadamrongrat (2012) conducted double-blind experiment, relying on 30 students. The results of the experiment showed that the average allocated amount was 109 Baht, from an endowment of 200 Baht. Eight subjects shared half of the pie or 100 Baht, and two subjects gave all of the 200 Baht to the recipients. There were no observations of the equilibrium prediction since none of the participants kept all of the 200 Baht to themselves.

Merrill Flood and Melvin Dresher created the framework of the Prisoner's Dilemma in 1950, and Albert W. Tucker formalized it in the game context (Straffin, 1980). The situation was about two suspects who were arrested by the police, due to a wrongdoing that they committed. The police have insufficient proof to convict both of the suspects of the offense. Separating the two suspects (or prisoners) to two interrogation rooms, with no possibility of communication between the two of them, the prosecutors hope that the two prisoners would betray each other. Both suspects know that if they keep quiet, they will be held in the prison for only a short period of time. However, they have learnt the police's offer that if either of them decides to confess, that person will be set free, whilst the one that kept silent would be sentenced to a longer term. As such, a self-interested and rational individual is motivated to choose the confession option. But when both decide to defect from the implicit agreement between them of no confession, both end up confessing to the crime and both of them end up in prison. This equilibrium outcome, which is based on an assumption of rationality, is clearly a worse outcome than the outcome of not confessing.

Since its development, researchers have been interested in the factors that explain coordination and defection in the Prisoner's Dilemma Game. Selten and Stoecker (1986) examined behaviors when the game was played repeatedly. Lack of information regarding the number of periods led participants to be strategists. They were cooperative in the early sessions of the game but

became defective in later periods in order to maximize benefits. Reputation has also been forward as another factor that influences cooperation. One-shot games and repeated games were designed for the purpose of such comparisons (Cooper, DeJong, Forsythe, & Ross, 1996). Also, see Andreoni and Miler (1993) who explored partners and strangers roles in decision making process.

Demographic factors have been considered as well. Research conducted by Ortmann and Tichy (1999) identified the level of cooperation from different genders. The results revealed that females were significantly more cooperative in the first few rounds compared to male subjects. The overall average of cooperation rates for females and males were 41 percent and 30 percent respectively. Looking at subjects from different countries, a study by Hemesath (1994) compared students from the U.S. and Russia. The one-shot game was played with a group of 45 participants, 22 Americans and 23 Russians, over a total of four rounds. The first and second rounds forbade formal communications amongst subjects, but communication was allowed in the remaining rounds. The overall cooperation rate for Russians was a very high 72.2 percent, whilst the Americans figure was 51.4 percent. Hemesath and Pomponio (1998) undertook a similar comparison, but chose Chinese and American students for their study. The 17 Chinese students and 13 American students chosen revealed a high cooperation rate of 53.7 percent from the Chinese students, and only 25.5 percent for the American students.

In Thailand, Timim (2012) conducted a Prisoner's Dilemma Game experiment with 40 undergraduate students. The findings showed that the cooperation rate in rounds 1 and 2, in which communication was prohibited were 47.5% and 35.0%, respectively. However, during rounds 3 and 4 where communication was possible, the cooperation rate rose to 80% in both rounds.

Having recognized the importance of explicit cues in influencing prosocial behavior, several researchers believe that psychological mechanisms could also shape human behavior. Haley and Fessler (2005) explored the implications of auditory and visual cues as parts of these mechanisms. Their Dictator Game experiment was conducted with 248 undergraduate students from the University of California, Los Angeles. By manipulating the sound and presenting an eye-shape image on the computer screen through five rounds of the game, the results showed that the sound did not appear to reduce the level of human generosity, whilst the image resulted in a substantial increase in prosocial behavior. This pioneering work by Haley & Fessler (2005) has led other scholars to test the power of social cues in influencing human behavior.

Although many experiments have been conducted to study the reasons behind observed

behaviors, this paper intends to focus on additional psychological elements to human actions, similar to the study by Haley and Fessler (2005). In particular, how subtle cues or motivations which are not explicitly stated or presented could potentially affect our behavior. The context that we rely on is the Dictator and Prisoner's Dilemma economic games, since they have been effectively employed to measure both self-interest and other-regarding motivations. We are specifically interested in the study of subjects in Thailand, since most of the previous studies on this topic have been conducted in industrialized countries. Human behavior is undoubtedly shaped by culture, so we expect the outcomes of economic game experiments to be culturally sensitive.

2. Literature Review

Since the original work by Haley and Fessler in 2005, other researchers have conducted similar experiments relying on visual cues. Rigdon et al. (2009) analyzed the effect of the watching eyes in the Dictator Game setting, but with an abstract and less aggressive eyes image. 113 undergraduate students from the University of Michigan were recruited as subjects. The study concluded that even very weak cues could push people to be more generous. Another interesting finding was that males seem to be more responsive than females to these weak cues. Oda, Niwa, Honma, and Hiraishi (2011) attempted to examine the reasons for such kindness when the eyes were present. Two possible explanations were the expectation of future rewards and the fear of punishment. The study was conducted with 62 undergraduate students from Kyoto University. Questionnaires were used to examine the subjects' thought processes during the experiment. The results revealed that subjects gave more with the existence of the eyes. But this act of generosity was due to their expectation of rewards, rather than the threat of being punished. Subjects could interpret the watching eyes as the eyes of their partners; consequently, triggering a feeling of reciprocity.

Tane and Takezawa (2011) on the other hand, searched for the factors that could mediate the kindness from the watching eyes. It was hypothesized that "darkness" raised an anonymous feeling and made people less cooperative. A total of 80 students from Sophia University were put into a room where all the lights were turned off except the computer screens. The results showed that the effect of the eyes was diminished when participants were in that dark environment. The effect of darkness reduced their concerns for his/her reputation.

Not all of the studies reported the success of the eyes in raising kindness. In 2013, experiment by Nettle, Harper, Kidson, Stone, Penton-Voak, and Bateson pointed out that the watching eyes cue only increased the probability of giving a donation, but did not necessarily raise the mean

value of an allocation. With 118 student participants from Newcastle University, the study also found out that gender did not contribute to the results. A study by Raihani and Bshary in 2012 similarly concluded that the eyes did not raise the level of cooperation, particularly when subjects' identities were completely anonymous. In fact, it was the image of the flower, not the eyes, that induced more altruism. The study was conducted online with 776 participants from 46 counties.

In a recent study by Pauwels, Declerck, and Boone (2017), the researchers pointed out that the eyes effect was tested mostly in games in which greed was the major driver, since the Dictator Game lacked interactions between participants. As a result, the researchers decided to conduct an experiment using the Prisoner's Dilemma Game setting instead. Three pictures revealing a "kind" eyes image, an "unkind" eyes image, and a control picture were presented during the decision-making rounds, where individuals were assigned either the first or second mover roles in a sequential game. The findings showed that the "unkind" eyes image led to a higher cooperation, but had no effect on the second mover's cooperation level.

Positive outcomes of the eyes image have proven to be successful not only inside the laboratory; several field studies have shown that the presence of the watching eyes could potentially raise prosocial behaviors. See Powell, Roberts, and Nettle (2012) and Oda and Ichihashi (2016) for the cases of donations, or Bateson, Callow, Holmes, Redmond Roche, and Nettle (2013) for the case of litter reduction on campus.

3. Experimental Procedure

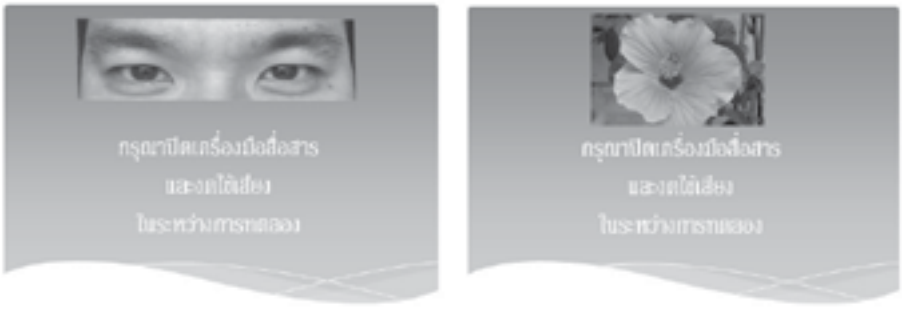
A total of 130 subjects participated in the experiment during the first quarter of 2017. Subjects were solicited through posters, which were posted around Mahidol University's Salaya campus. Interested participants were screened in order to confirm their nationality and age, before they were allowed to participate in the experiment. Participants had to be Thai, of at least 18 years of age; but there was no requirement on gender, education, income, and profession. It should be noted that the sample size of 130 participants was larger than previous studies on social cues. For example, Rigdon, Ishii, Watabe, and Kitayama (2009)'s study relied on 113 subjects, whilst the study by Oda, Niwa, Honma, and Hiraishi (2011) had only 61 subjects.

The experiments were conducted using two classrooms at Mahidol Univeristy International College, in which each room accommodates 40 people. On the day of the experiment, all confirmed participants for the session gathered in front of the experiment room approximately 15 minutes before the experiment began. After all of the participants had read and signed both the Information Sheet and Informed Consent Form, they randomly drew their identifications (IDs)

which were used throughout the experiment. These IDs were to conceal their true identities to both the researcher and other participants. Each session required 26 participants, so the IDs ranged from A to Z. Then, the research assistants led the participants with IDs A to M to one room, whilst IDs N to Z were directed to another room. Both rooms were on the same floor, but located on different sides of the building. In each room, 13 tables and chairs were arranged with sufficient spaces among them, so all participants could make their decisions privately.

The experiment consisted of 5 sessions, two sessions with the eyes treatment, two sessions with the flower treatment, and one control session; in which each session required 26 participants. Subtle cues were presented by the classroom's projector, which showed a warning statement regarding the prohibition of mobile communications and talking during the experiment, see Figure 1. The male eyes image was adopted in the eyes treatment, since previous literature suggested that the sex of the eyes did not affect the outcome of the Dictator Game experiment (Nettle, Harper, Kidson, Stone, Penton-Voak, and Bateson, 2013). In addition, Raihani and Bshary (2012) found out that the flower image could be more effective in triggering prosocial behavior. Previous studies presented the eyes or flower images through posters or on the participants' computer screens. However, since this study's experiment was conducted in the classroom, posters could be deemed as being explicit, which might not represent subtle cues. The control session had the same warning statement without any image.

Figure 1: The eyes treatment and the flower treatment



All of the five sessions followed the same procedure, which consisted of the Prisoner's Dilemma Game (PDG) and the Dictator Game (DG). For the PDG, the research assistants handed out the instruction in the Thai language, which explained the details and the nature of the game, including choices and the payoffs matrix, similar to Figure 2. The name of the game was not stated in the instructions.

Figure 2: Options and payoffs in the Prisoner's Dilemma Game

You: OPTION 1	Another: 150 Baht You: 150 Baht	Another: 250 Baht You: 0 Baht
You: OPTION 2	Another: 0 Baht You: 250 Baht	Another: 50 Baht You: 50 Baht

Subjects in both rooms were informed by the instruction that they would randomly be paired with another person in the other room, and that their true identities would never be revealed to anyone, even to the researcher, both during and after the experiment. Subjects were given approximately 15 minutes to choose either Option 1 or 2, and then they wrote their choices on the Response Sheet. After all of the subjects had made their decisions, the Response Sheets were collected simultaneously.

Having completed the first game, the research assistants then handed out the instruction of the DG. Subjects would again be randomly matched with another person in the other room, but not the same person that had been assigned to them in the PDG. They were assured again, that their identities would not be revealed, even to the researcher. Without mentioning the name of the game, subjects were told that in their pairs, one subject would be assigned the allocator role, whilst the other would assume the recipient role. The allocator was given 200 Baht, and had to decide how much should be allocated to the anonymous partner in the other room. What subjects did not know was that, in fact, that all of them were assigned allocator roles. They were given 15 minutes to write down the allocating amount in the Response Sheet, before all of the response sheets were collected by the research assistants.

The researcher in another classroom randomly matched one subject from IDs A to M to one subject from IDs N to Z for both games, with different matching for the PDG and the DG. After payoffs for all of the subjects were determined, cash earnings were put into sealed envelopes labeled with only the subjects' IDs. The research assistants then took the labeled envelopes and distributed them to each participant. The double-blind design ensured that the researcher and the research assistants did not know the true identities and earnings of any participant. The earnings consisted of the 100 Baht show-up fee and the payoffs from both of the PDG and

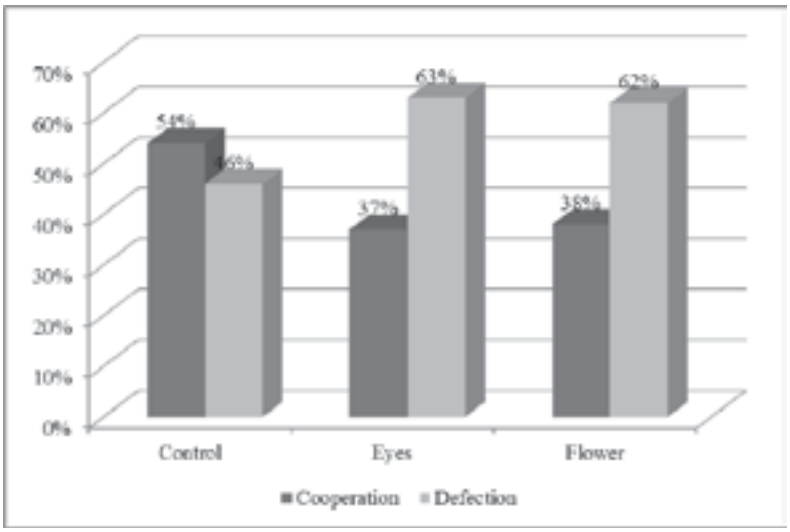
the DG experiments. The average earnings from the eyes, flower, and control treatments were 331.25 Baht, 333.17 Baht, and 361.73 Baht, respectively. The whole session lasted approximately one hour.

Whilst waiting for the researcher's calculations of the subjects' payoffs, subjects completed a questionnaire asking for their demographics. The average age of the subjects was 34.20 years, and the majority of them (74.22 percent) were female. Almost all of them have the bachelor degree and earn a similar range of monthly income, between 15,000 Baht and 50,000 Baht.

4. Results

In the PDG, when both players in a pair decide to cooperate and choose the same Option 1, the pair's payoffs are maximized at 300 Baht or 150 Baht for each. The equilibrium outcome, on the other hand, predicts both to defect in order to seek higher individual payoffs. As a result, the defection choice is when players select Option 2. Although the equilibrium projects a 0% cooperation rate and a 100 percent defection rate, the results from the experiment indicate that 54%, 37%, and 38% of subjects decided to cooperate in the control, eyes, and flower treatments, respectively. Figure 3 presents the cooperation and defection rates for all three.

Figure 3: Cooperation and defection rates in the PDG



Compared to the control treatment, the presence of both the eyes and the flower images substantially raised the defection rates. Contrary to previous studies (see Haley & Fessler, 2005; Oda, Niwa, Honma, & Hiraishi, 2011; and Raihani & Bshary, 2012) where both the eyes

and flower are expected to reduce the self-interest motivation, Thai subjects seem to perceive both images negatively. This is especially true for the watching eyes which carry a threatening image much stronger than the flower image. As presented in Table 1, T-test results confirm that the cooperation rates from the control and the eye treatments are statistically different with a p-value of less than 0.10, whilst there is no statistical difference between the control and the flower treatments, and the eyes and the flower treatments.

Table 1: P-values from T-tests comparing different treatments in the PDG

Control and Eyes	Control and Flower	Eyes and Flower
0.078	0.104	0.841

Note: One-tailed tests were applied for the control and eyes treatment, and the control and flower treatment; whilst two-tailed tests were carried out on the eyes and flower treatments.

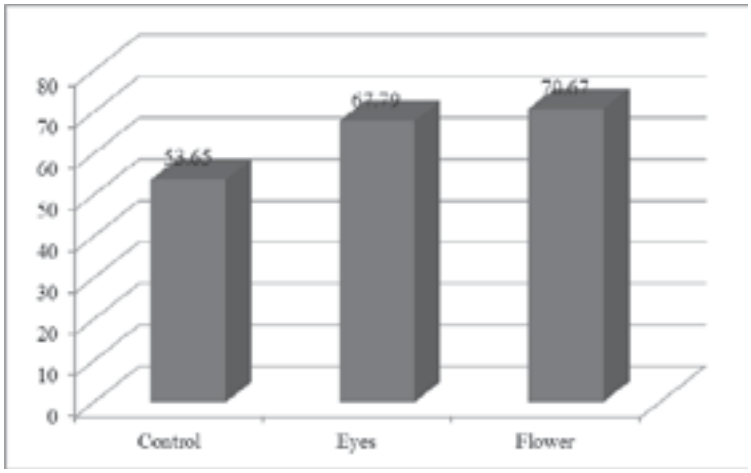
When more subjects in the eyes and flower treatments chose to defect, they were more likely to end up with the equilibrium prediction, and consequently lower payoffs. Figure 4 reveals the outcomes of the PDG from all three treatments. Relative to the control treatment, a higher percentage of pairs ended up with the equilibrium prediction (defection-defection outcome) in both the eyes and flower treatments. On the other hand, 31 percent of subjects in the control treatment ended up in the cooperation-cooperation outcome, and they earned more from the PDG on average, relative to participants in the other two treatments.

Figure 4: Outcomes from the control, eyes, and flower treatments

	Cooperation	Defection
Cooperation	Control: 31% Eyes: 12% Flower: 7%	Control: 31% Eyes: 15% Flower: 31%
Defection	Control: 15% Eyes: 35% Flower: 31%	Control: 23% Eyes: 38% Flower: 31%

The results from the DG experiments reveal that Thai participants do not behave according to the equilibrium prediction. As shown in Figure 5; from the sum of 200 Baht, dictators in the control, eyes and flower treatments on average allocated 53.65 Baht (27 percent), 67.79 Baht (34 percent), and 70.67 Baht (35 percent), respectively.

Figure 5: Allocation in the DG (Baht)



The existence of the eyes and flower images did raise the amount of money allocated to the recipients. Results from the T-tests, as shown in Table 2, affirm that although there is no statistical difference between the allocations from the eyes and flower treatments, the flower image seems to be more effective in lessening the self-interest motivation, with a p-value of less than 0.10.

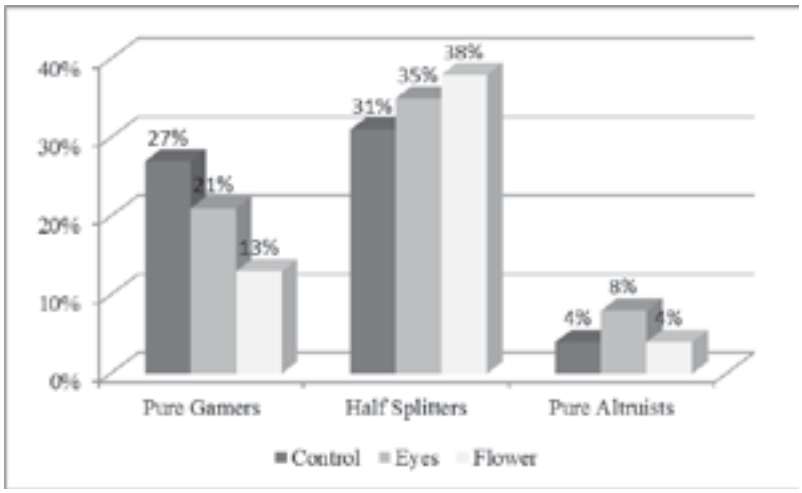
Table 2: P-values from T-tests comparing different treatments in the DG

Control and Eyes	Control and Flower	Eyes and Flower
0.133	0.076	0.777

Note: One-tailed tests were applied for the control and eyes treatment, and the control and flower treatment; whilst two-tailed tests were carried out on the eyes and flower treatments.

There is a tendency for an individual who is motivated by self-interest to keep all the money for himself/herself. These so-called pure gamers would allocate 0 Baht to their partners, in order to maximize their own personal earnings. On the other hand, pure altruists would allocate all of the 200 Baht to the recipents. Some may regard 50% (100 Baht) as a fair allocation. Subjects in the flower treatment appear to behave differently in terms of balancing their self-interest and other-regarding influences, as shown in Figure 6. Specifically, the presence of the flower image substantially reduced the pure gamers percentages from more than 20% in the control and eyes treatments, to only 13 percent.

Figure 6: Distributions of pure gamers, half splitters, and pure altruists in DG



As for the relationship between gender and subtle cue influences, the results from this experiment indicate that gender does not play a significant role in the PDG, see Table 3. Female subjects had a slighlty lower cooperation rate than males in both the eyes and flower treatments. As for the DG, the presence of the flower image appears to affect female subjects more than males. However, T-tests results (not presented here) do not find any statistical differences between genders for all the scenarios.

Table 3: Gender comparisons in the PDG and DG

Game	PDG		DG	
Treatment	Eyes Treament	Flower Treatment	Eyes Treament	Flower Treatment
Male	38.10%	40.00%	65.48 Baht	52.50 Baht
Female	36.67%	36.59%	65.00 Baht	76.83 Baht

The insignificant role of gender is confirmed with the regression results presented in Table 4. With the pooled data from all five treatments, the gender factor is not statistical significant in both the PDG and DG experiments. The age factor, which is expected to raise the dictators' allocation (Raihani and Bshary, 2012), does not appear to have an effect on the Thai dictators. However, there is a positive relationship between age and the cooperation rate in the PDG experiment.

Table 4: Logit and regression results from pooled samples

	Cooperation in PDG	Allocation in DG
Eyes dummy	-0.648 [0.212]	14.703 [0.248]
Flower dummy	-0.716 [0.152]	19.427 [0.114]
Male dummy (Male = 1, Female = 0)	0.110 [0.807]	-8.754 [0.811]
Age (actual)	0.057 [0.039]**	0.157 [0.414]
Number of Observations	128	127

Note: Cooperation in PDG is a dummy variable where 1 = Cooperation and 0 = Defection, whilst Allocation in DG is actual allocated money in Baht. Numbers in brackets represent p-values. ** p-value < 0.05.

5. Conclusion and Implication

The results from the Prisoner's Dilemma Game and the Dictator Game experiments conducted in Thailand confirm that self interest is not the sole motive that drives human behavior. The Thai subjects' cooperation rate of 54% in the control treatment is in the same range as the American, Chinese, and Hong Kong subjects (see Hemesath, 1994; Wong & Hong, 2005). As for the contribution from the DG experiments, Thai dictators from the control treatment allocated 27 percent from the total endowment. This figure is slightly lower than the average contribution of 28.35% from Engel (2011)'s study which had a compilation of 616 treatments from 129 publications, but is in the same range of devoloped countries' contribution of between 20 percent and 30 percent (Ensminger, 2008). Other-regarding motivation undoubtedly plays a major role in Thai subjects' judgement.

The unsettled issues regarding the role of subtle cues on individuals' behaviors in the DG have been tested on Thai subjects. The watching eyes and flower both raised the contributions from Thai dictators, from 27 percent to 34 percent and 35 percent, respectively. However, the flower

image is statistically more effective in triggering the prosocial behavior, as compared to the eyes. This outcome is similar to the conclusions derived from the experiments conducted by Raihani and Bshary (2012). The researchers suggest that the flower image is effective due to the direct association of interaction with nature, creating a positive feeling. Consequently, this positive emotion helped the subjects reduce the self-regarding behavior in the DG.

The flower image, on the other hand, did not raise the cooperation rate in the PDG. It was the watching eyes which statistically influenced the subjects' behavior in the PDG. Unexpectedly, the watching eyes actually lowered the cooperation rate amongst Thai subjects from 54% to 37%; whilst the eyes did not sway any behavioral change in the DG. Oda, Niwa, Honma, and Hiraishi (2011) claimed that the watching eyes image worked because it triggered subjects to expect a reward, so their responses were prosocial. This is a possibility, although the actual reciprocity did not occur under a one-shot game. Watching eyes could also raise people's kindness in circumstances where altruism was rare (Powell, Roberts, & Nettle, 2012). Thai subjects, on the other hand, seemed to associate the watching eyes with a negative attitude. The feeling that somebody is watching actually hurts prosocial behavior, particularly here, with the level of cooperation. The overall results were striking, since subjects could not develop their reputation in the one-shot game. In addition, the cues were not explicit, which meant that no third party actually monitored the behaviors.

The results from this experiment confirms the belief that other-regarding influences and subtle cues are culturally sensitive. The major implication is that other-regarding behavior namely fairness, altruism, and a cooperative spirit cannot be ignored; but should be integrated when considering any human interactions. Compared to people from other countries, Thais generally tend to be more cooperative, but not highly altruistic. The benefits of subtle cues are substantial when they are employed correctly. The presence of "soft" encouragements, such as the flower image, are more effective than "hard" motivations such as the watching eyes. As for policy implications, the use of positive rewards and encouragements could nudge Thai people to adjust their behavior towards the prosocial side, whilst the threat of close monitoring and enforcement could have the opposite outcome. If policy makers would like Thai people to cooperate, or to consider the group benefits to be more important than individual gains, they should refrain from putting excessive pressure on the individuals. But when the policies or the campaign's objective requires fairness or altruism of participants, it is better to make people feel relaxed and comfortable with the situation. A similar approach could be applied to the business setting, particulary in the area of employee motivation.

We realize that the study has limitations, which include the fact that most participants were females. Gender bias in the sample could play a role in deciding the outcomes of the experiments. Another bias is related to religion. However, since all participants in the experiment were buddhists, the effect of religion on the PDG and DG outcomes cannot be measured. The experiments conducted in Thailand imply that the effects of subtle cues on prosocial behavior depend heavily on culture. In contrast to individualism, Thai people tend to be on more collectivistic, and value cooperation and team outcome (Hofstede, 1984). In addition, Thailand is considered to be a more feminine society where relationships are highly valued (Hofstede, 1983). These cultural dimensions could provide an alternative explanation as to why subtle cues, which were associated to nature, effectively triggered Thai participants' cooperative behaviors. As such, further researches should focus on cross-country experiments, in order to explore the effects of cultural dimensions in promoting prosocial behaviors.

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