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RESEARCH ARTICLE

Ethical Orientation versus Short-Term Ethics Training: Effects on Ethical Behavior in the Prisoner's Dilemma Game and Dictator Game Experiments

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This study tests the effects of an individual's ethical orientations and the effectiveness of short-term ethics training on prosocial behavior in the prisoner's dilemma and the dictator economic games. Ethical orientations are classified based on the levels of idealism and relativism that an individual possesses; whereas ethics training is a module that was introduced to bring about awareness of ethical dilemmas in economic games. The experiment, which was conducted with 156 participants from Thailand, resulted in prosocial behavior which contradicts expected economic predictions based on the assumptions of rationality and self-interest. Although an individual's ethical orientations are not a reliable determinant of ethical behavior, a short-term training module on ethics can be effective in helping to trigger a prosocial outcome. This has important implications as it illustrates the benefits of teaching business ethics through economic games, which can be applied across a wide range of scenarios.

Keywords: ethical orientations, ethics training, Prisoner's Dilemma game, Dictator game

JEL Classifications: C72, C91, D64, M53

Prosocial behavior has been defined as a "voluntary behavior that is intended to benefit the other person" (Eisenberg & Sadovsky, 2004, p. 137). Unlike other animals, humans are more likely to show this type of behavior, even to other people who are not related to them (Numan, 2015). Examples of such behavior include people making donations to charitable organizations, contributing to disaster campaigns, or volunteering their time and effort for the benefit of the general public. Although altruism could be deemed to be the motivation behind such acts, the relationship between prosocial behavior and altruism has proven to be rather complex (Batson & Powell, 2003). Early studies on prosocial behaviors can be traced back to research in the 1960s, attempting to answer the question of when and why people help

others (Penner, Dovidio, Piliavin, & Schroeder, 2005; Declerck & Boone, 2016). For example, maintenance of positive self-image (Schwartz & Howard, 1982) and fulfillment of personal needs (Omoto & Synder, 1995) were just two of the reasons cited as promoting prosociality.

More recently, however, research in prosocial behavior has branched out to include the contribution of prosocial behavior on human evolution, and the biological mechanisms underlying prosocial acts (Penner et al., 2005; Declerck & Boone, 2016). Developmental psychology, on the other hand, gives more importance to genetically-based and environmentally-based factors that influence prosocial behavior, including the roles that an individual's personality and personal characteristics play, in explaining prosocial orientation differences.

Economists have also been interested in the same topic, although the term "other-regarding" preference has often been used instead of prosociality (Declerck & Boone, 2016). This behavior has puzzled the more traditional economic scholars who assume that human behavior is motivated by "self-regard" or self-interest. Behavioral economics, which integrates psychology with economics, does not explicitly distinguish prosociality from other-regarding preferences. In social psychology, prosocial behavior can be assessed using a "situational experiment" in which participants are put into an environment requiring an emotional response, at the same time that their behavior is observed (Leiberg, Klimecki, & Singer, 2011). In economic literature, prosocial behavior is usually studied in the context of controlled "game" experiments.

There are several advantages of employing experimental methodology. First, experiments allow researchers to directly observe the behavior and measure the intensity of that behavior. In addition, it allows researchers to focus on one or a few specific factors at a time, without being influenced by other factors. Not only that, because the researchers have virtually full control in the laboratory situation, the experiment can also be replicated by other researchers to validate the experimental design and the results (Davis & Holt, 1993). Additionally, when a cash payment is provided, the experiment can be deliberately designed to be incentive compatible. Participants whose goal is to maximize returns have an incentive to behave according to their true nature and their preferences.

In a typical economic game experiment, participants are required to decide on several choices, which leads to different payoffs to themselves and the other participants. When self-interest is the sole motivation, participants will select a choice that yields themselves the maximum payoffs, regardless of other participants' outcomes. On the other hand, participants exhibiting prosocial preferences would consider a choice that is beneficial to others, even though that choice could reduce their own payoffs. Various factors have been found to promote prosocial behavior, including repeated interactions or the threat of punishment (Camerer, 2003; Fehr & Gachter, 2002). Games can also be devised to incorporate specific dilemmas, such as participants could mutually benefit from being concerned for the others' welfare or the participants' payoff is inversely related to the other participants' payoff. Along with other games, the prisoner's dilemma and the dictator games have been widely adopted to test the existence of prosocial or other-regarding behavior. In a standard prisoner's dilemma game setting with two participants or players, each player faces a choice of either cooperation or defection. As an illustration, two choices and a monetary payoff for each of the four possible outcomes are presented in Figure 1. If both players, A and B, decide to cooperate, each could earn 150 Baht (US$1 was approximately worth between 33 and 36 Baht in 2017). However, when one person is cooperative and the other is not, the defector could maximize the gain to 250 Baht. When self-interested and rational individuals do not cooperate, the equilibrium prediction is for both to choose defection (the shaded area in Figure 1). This outcome leads to each person earning only 50 Baht, compared to 150 Baht if they both choose to cooperate; which is the dilemmatic nature of the game. However, participants exhibiting prosocial preferences could decide to cooperate and risk receiving a lower payoff. In a one-shot game with anonymous players, a player' reputation cannot be developed; therefore, the cooperation rate is expected to be 0% while the defection rate is expected to be 100%.

Although self-interest drives people to choose to defect, altruism can be explained as being behind cooperative behavior (Dawes & Thaler, 1988; Camerer & Fehr, 2008). Certain explanations have been devised to explain altruistic behavior, for example, inequity aversion by Fehr & Schmidt (1999), and more recently

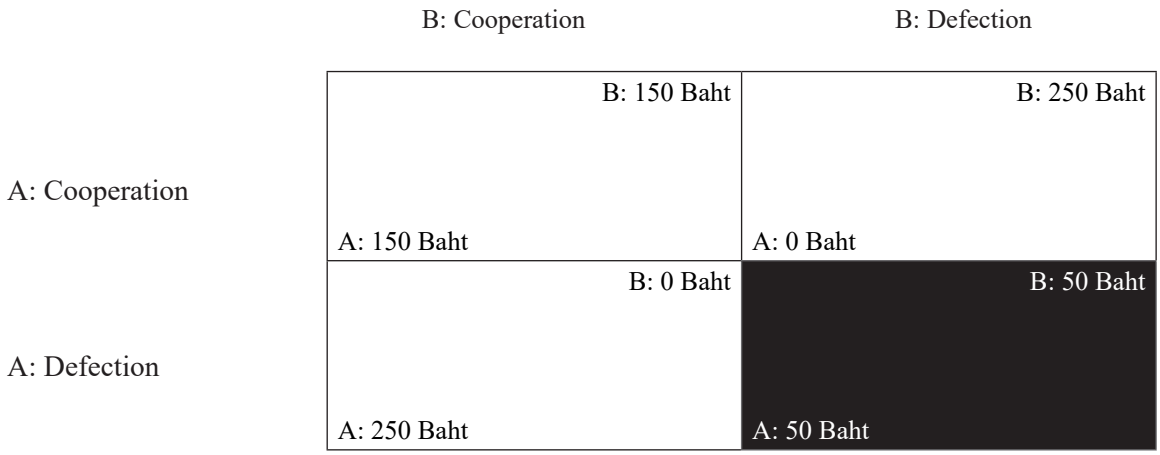

Figure 1. Payoffs in the standard prisoner's dilemma game.

by Capraro, Jordan, and Rand (2014) who cited fairness heuristics as being an alternative explanation.

Even with the game's popularity, one weakness of the prisoner's dilemma game is its inability to distinguish reciprocal altruistic motives from self-interest motives (Camerer & Fehr, 2008). Reciprocal altruism occurs when participants choose to defect because they pessimistically expect others to defect also. On the other hand, in the dictator game, reciprocal altruism is not possible because one party has no role in the decision-making process. The game focuses only on how dictators treat others; as such, the dictator game is a measurement of "purer" altruism, or unconditional kindness (Hilbig, Thielmann, Hepp, Klein, & Zettler, 2015). It is worth pointing out that some scholars define "pure" altruists as those who seek pleasure from benefiting from the welfare of others whereas "impure" altruists are driven by the actual act of assisting others, and not by the outcomes (Dawes & Thaler, 1988).

Pioneered by Kahneman, Knetsch, and Thaler (1986), a simple dictator game involves two persons. The game begins with the first player, who can be called the dictator, proposer, or allocator receiving an endowment from the experimenter. This dictator then decides to allocate none of it, a part of it, or all of it to the second player, who is called the receiver or responder. The game ends with the second player's acceptance of the allocated amount from the dictator. A dictator motivated by self-interest, whose goal is to maximize his or her own payoff, will give nothing to the would be receiver which is referred to as the equilibrium prediction. On the other hand, a dictator whose concern is for the other player's welfare could allocate a part of the endowment to the receiver.

The prisoner's dilemma and the dictator game experiments have been conducted in various contexts to date, and the results are highly sensitive to the manipulations of the experiment's design (Camerer & Fehr, 2008). In a one-shot prisoner's dilemma game, the cooperation rates ranged from 0% to 100% (Roth, 1995). As for the dictator game, Engel (2011)'s meta-analysis compiled results from dictator game experiments that had been conducted since the early 1980s in different countries and using different procedures. From a total of 129 publications covering 616 treatments, 63.89% of the participating dictators gave non-zero allocations, on average contributing 28.35% of the money endowed to them.

It should be noted that the degree of prosociality depends on the social norms shared by members of the group (Fehr & Fischbacher, 2004). However, different social groups have divergent beliefs regarding what is appropriate behavior in a particular situation—beliefs which are governed by the group's culture (Fehr, Fischbacher, & Gächter, 2002). As such, the role of culture cannot be ignored in any study of prosocial behaviors (Henrich et al., 2008; Hagen & Hammerstein, 2006). Unsurprisingly, the prisoner's dilemma experiments conducted in other countries revealed substantial heterogeneity. Hemesath (1994), for example, examined whether Americans and Russians would behave differently as Russia is not a capitalist country. The results from the prisoner's dilemma game experiment showed that Russian participants cooperated 72.2% of the time whereas

American participants cooperated only 51.4% of the time. Research conducted by Hemesath & Pomponio (1998) involved American and Chinese students, and their experiment revealed the defection rate of Chinese students to be 46.3%, which was substantially lower than that of the United States' figure of 74.5%.

Culture also plays an important role in the dictator game, as the average allocations from developed countries were usually in the range of 20% to 30%. However, participants from developing countries and more primitive societies tended to offer more (Ensminger, 2008). Although in the original study by Kahneman et al. (1986), 76% of the participants decided to split the endowment equally, observations of allocating greater than half of the endowment in subsequent experiments were rare. Engel (2011) discovered that approximately 20% of participants from Western countries selected an equal split whereas participants from primitive societies rarely gave more than 50% of the endowment to their allocated partners.

Experimental evidence to date has confirmed that choices are not solely motivated by self-interest; in fact, other-regarding stimuli have been found to be important motivators. Nevertheless, both games still attract the attention of scholars attempting to identify the explicit and implicit factors that drive altruistic behavior. For example, a study by Hilbig et al. (2015) showed a strong relationship between those with an honesty-humility factor in the HEXACO personality model and prosocial behavior in the dictator game. Also, similar results were found by Shariff and Norenzayan (2007) and Gomes and McCullough (2015), who studied the effects of religious priming on prosocial acts in the dictator game.

This study attempts to extend the body of knowledge by integrating business ethics to behavioral economics, specifically, by exploring the role of ethical orientations and short-term ethics training in determining prosocial behavior in economic game experiments. To my knowledge, although various demographic factors such as gender and nationalities have been shown to strongly affect prosocial actions in the laboratory, the role of an individual's internal ethical principles or their orientations has not been explicitly studied. It is not only economists that have supported the use of economic game experiments to teach economic students (Holt, 1999; Dickie, 2006), ethics scholars have also proposed the incorporation of economic games to business ethics teaching (James, 1998; Gibson, 2003). These scholars claimed that economic games present the conflict or dilemma between oneself and others' benefits, which have ethical implications because ethical acts infer a concern for others whereas unethical acts focus only on the welfare of oneself. Both the prisoner's dilemma and the dictator games are useful because both games present similar, yet different types of dilemmas. In the prisoner's dilemma game, both players could earn more if both choose the prosocial or ethical choice, relative to the unethical choice. In the dictator game, however, the dictator will earn less if he or she behaves ethically.

As scholars currently consider prosocial preference to be a stable attitude which varies only among individuals (Chierchia & Singer, 2017), an interesting question is whether or not such an attitude can change, especially through ethics training. This study is important because the effectiveness of ethics training has always been the subject of an on-going debate. I hope that the results from this study provide a better understanding of the factors and conditions that induce people to act cooperatively and altruistically in social dilemmas, which is one of the main objectives in a social science study (Boone, Declerck, & Kiyonari, 2010). It should be noted that compared to previous studies on ethical ideology and business ethics training, which usually rely on survey respondents' evaluations of ethical scenarios or vignettes as dependent variable (Woodbine, Fan, & Scully, 2012), the economic game experiment employed by this study provides a controlled environment where actual behavior can be observed. Also, the incentive-compatible mechanism encourages participants to behave according to their true nature. Furthermore, because there have been very limited studies on this topic outside the Western world, an experiment conducted in the Southeast Asian region would help to strengthen the importance of recognizing the role that culture plays in the area of prosocial behavior.

Ethical Orientations

Individuals vary in their approach towards moral behavior. Some rely on religion in guiding their decisions and behaviors whereas others may use other means. The ethical position theory formulated by Forsyth (1980) proposed two dimensions—idealism and relativism—in assessing an individual's ethical ideology. These two dimensions focus on personal moral principles or orientations, which serve as a guide

in judging whether or not an issue is morally right or wrong. A high idealist has strong concerns for the wellbeing of others, so this person will avoid harming others at all costs. As for a relativist, he or she does not hold a strong belief in universal ethical rules. The ethics position questionnaire (EPQ), developed by Schlenker and Forsyth (1977), classifies people into four groups— subjectivists, situationists, exceptionists, and absolutists—based on the two stated dimensions presented in Table 1.

Those who are highly idealistic and relativistic are called situationists. A situationist is a person who does not follow the rules, but any action that carries negative consequences on others would be morally wrong to a situationist. A subjectivist who receives a low score on idealism and a high score on the relativism dimensions will make decisions and behave in a way that may not yield positive outcomes. For subjectivists, each situation is treated independently; so their decisions and behavior depend heavily on feelings and emotions, and not on universally accepted moral rules and principles. On the other hand, an absolutist is someone who believes in both the social goals and the ethical rules. Lastly, there is the exceptionist who holds a firm belief in the moral rules but does not choose to follow that which benefits society at large. The exceptionist merely believes that any decision or behavior that violates the rules is not acceptable.

Since its development, EPQ has been applied to predict attitudes and intentions towards a variety of ethical issues. A study by Allmon, Page, and Roberts (2000) revealed that a person's level of ethical orientation was related to the propensity of a business students' intention to cheat in the examination. On the other hand, Barnett, Bass, and Brown (1994) pointed out that business students who were absolutists tended to judge unethical vignettes as more unethical than students following other ideologies. Similar outcomes were obtained when samples were marketing professionals rather than students (Barnett, Bass, Brown, & Hebert, 1998). Some scholars did not break down people according to their ideologies but focused only on the idealistic and relativistic dimensions. However, the results are still inconclusive (Singhapakdi, Salyachivin, Virakul, & Veerayangkur, 2000; Douglas, Davidson, & Schwartz, 2001; Henle, Giacalone, & Jurkiewicz, 2005).

An ethical position is not universal; it is culturally sensitive. On a broader scale, Forsyth, O'Boyle, and McDaniel (2008) conducted a meta-analysis of idealism and relativism across 29 countries. With a score from 0 to 1 from the EPQ, the overall averages of idealism and relativism were 0.728 and 0.586, respectively. When classifications were carried out using the median, Western countries were usually in an exceptionist position, whereas Eastern countries were categorized as situationist or subjectivist. Several countries in Asia were categorized as subjectivists, namely, Hong Kong, Japan, China, and Thailand. A recent cross-country study by Malloy et al. (2014) focused on physicians in Canada, China, Ireland, India, Japan, and Thailand. The overall scores revealed that China, India, and Thailand are more idealistic, whereas India and Japan tend to be more relativistic.

EPQ has been accepted as a valid and reliable tool for measuring an individual's ethical ideology (McDonald, 2000; Forsyth & Pope, 1984; Forsyth, 1980). Although its usefulness in predicting people's attitudes and intentions towards ethical issues has been pervasive (Woodbine et al., 2012), its direct application on ethical behavior is rather limited. However, one exception is a study by Rai and Holyoak (2013) in which students who were exposed to an absolutist argument were less likely to cheat in order to win the prize, relative to those being exposed to a relativistic argument. To my knowledge, there has not been any attempt to directly associate ethical ideology to prosocial behavior in an incentive-compatible setting

Table 1. *Ethical Positions*

	Idealism	**Relativism**
Situationists	High	High
Subjectivists	Low	High
Absolutists	High	Low
Exceptionists	Low	Low

Source: Schlenker and Forsyth (1977)

when actual money is at stake. As a result, I propose that ethical orientation is a determinant of other-regarding behavior in laboratory experiments, with the following hypotheses:

H1: Ethical orientation is a determinant of the cooperative level in the prisoner's dilemma game experiment.
H2: Ethical orientation is a determinant of the amount of allocation given in the dictator game experiment.

Short-Term Ethics Training

One of the main goals of studying ethics is to raise and develop students' moral reasoning abilities (Desplaces, Melchar, Beauvais, & Bosco, 2007). Some believe that business ethics cannot be taught (Cragg, 1997), but others argue that people's moral reasoning can be developed and trained (Rossouw, 2002). Ethics training in business schools usually involves a one-semester course in business ethics, or a similar course, which is measured by the students' moral reasoning or judgmental abilities when confronting hypothetical business issues or ethical dilemmas.

The effectiveness of ethics training in influencing the participants' attitudes or behavior has been extensively studied by many scholars, but the results have been mixed. Some have claimed that business ethics education was marginally effective (Lane, Schaupp, & Parsons, 1988; Waples, Antes, Murphy, Connelly, & Mumford, 2009). On the other hand, a study by Abdolmohammadi and Reeves (2000) found that students who took a course in business ethics and social responsibility ended up achieving higher scores on the moral reasoning test. Wang and Calvano (2015) investigated the relationship between ethics education and the dimensions of idealism and relativism, and how they influence moral judgments. It should be pointed out that the degree of such influence depends heavily on gender. As can be seen in the case of nonstudents, ethics training proved to have had a positive impact on firms' employee attitudes (Delaney & Sockell, 1992; Frisque & Kolb, 2008).

However, training in ethics varies in terms of content, design, method, or even duration. Although Schlaefli, Rest, and Thoma (1985) concluded in their meta-study that ethics training, which is shorter than three weeks, might not produce any expected outcomes, Jones (2009) concluded that short duration courses did raise students' moral reasoning and judgmental abilities. Short training according to a study by Jones (2009) involved five 75-minute classes over three weeks.

Although a short duration does not appear to be effective in teaching business in general, it has proved to be quite effective in raising prosocial behavior in the experiment. In another study by James and Cohen (2004), economic and business students who were exposed to a one-hour presentation on ethics performed differently in the prisoner's dilemma game. Besides explaining the nature of the prisoner's dilemma game, the short ethics module presented students with the meaning of ethics, the ethical dilemma of the prisoner's dilemma game, and the importance of each individual's "sense of goodness." Those who were exposed to this short module achieved 77.5% level of cooperation, significantly higher than the control group's cooperation rate of 57.8%.

This study examines the effectiveness of a short-term ethics training module on prosocial behavior, similar to the one used by James and Cohen (2004), but with a few notable variations. This experiment relied on nonstudent participants to test the application of such training outside of the classrooms; as such, a monetary incentive was used instead of offering extra credits. The use of nonstudents as experimental subjects could help reduce any bias that might arise from students' expectations of the researcher's (professor's) objectives of the ethics training and subsequent economic game experiments.

Short-term ethics training in this study does not involve normative ethics training; instead, it is contextually specific. The content of the training is related to the dilemmatic nature of the games, where there is a conflict between oneself and the other person's welfare. Ethical behavior is defined narrowly as a regard for the other's payoff from the experiment. It is expected that such short-term ethics training could neutralize the self-interest motive in business game experiments; thus, leading to the following hypotheses:

H3: Short-term ethics training is a determinant of the cooperative level in the prisoner's dilemma game experiment.
H4: Short-term ethics training is a determinant of the amount of allocation given in the dictator game experiment.

Methodology

The 156 participants that signed up for this experiment were recruited through posters placed around Mahidol University's campus, located in Thailand. On the day of the experiment, participants, who were confirmed for the session, gathered in front of the experiment room. After they had read and signed both the information sheet and consent form, all of them randomly drew identifications (IDs) to conceal their real identities from the researcher and the other participants. The double-blind design was maintained, as the experiment was entirely conducted by three research assistants, with the researcher not being present throughout the experiment's process.

The experiment consisted of six sessions, comprising of four control sessions and two sessions, which included ethics training. Each session required 26 participants, whose IDs ranged from A to Z. In the sessions with ethics training, participants were given approximately 30 minutes to read the information sheet, similar to the experiment by James and Cohen (2004).

Specifically, the training comprised of three parts: the meaning of ethics, the ethical implications of the economic game, and a reminder of anonymity. First, participants were informed that ethics is a study of standards, principles, or guidelines which assist us in making decisions regarding which behavior is right or wrong. Examples of those standards are not harming others, being responsible for one's actions, and having respect for others' rights. Secondly, it was stated that the game setting could create an ethical dilemma because a person's choice incurs consequences on oneself and others. Some games' payoffs depend only on one person's decision whereas in other games, the payoffs could rely on the other person' choice. For certain complex games, the person's welfare could negatively correlate to another's welfare. As a result, ethical decisions require a balance between one's own benefit and the other's welfare. Thirdly, participants were reminded that their decisions depended entirely on each person's ethical standpoint because there would be no mechanism to monitor or audit their selected choices.

Several measures were undertaken to reduce any potential bias from experimenter demand effects (EDE), as suggested by Zizzo (2010). Examples of EDE include the Milgram effect where subjects were tested on their level of obedience to an authoritative figure, the Hawthorne effect which occurs when subjects form an expectation regarding the study's objective and behave accordingly, and the social desirability effect. This study was conducted on nonstudents as subjects, and the experimenters (professors) were not present during the experimental process under a strict double-blind mechanism. Anonymity and confidentiality were ensured with the use of IDs instead of actual names. In addition, subjects were strangers (not fellow students from the same class), and all communication between them was prohibited during the experiment. A between-subjects design, in which subjects were randomly assigned to either training or non-training sessions, was also employed. Lastly, the experimenters had been careful to select a context-free language in the games' instructions, by avoiding the use of leading terms such as cooperation or defection. As for ethical orientations, it would be very difficult for subjects to ascertain the experiment's aim because they were asked to complete the EPQ after the games.

Every session followed the same experimental procedure, in which all subjects participated in two economic games, namely the prisoner's dilemma game and the dictator game. The research assistants handed out the instructions of the prisoner's dilemma game (the name of the game was concealed) to subjects in both rooms. The instruction explained the two options, and their respective payoffs, similar to the presentation in Figure 1. However, the cooperation and defection choices were presented as "Option 1" and "Option 2," respectively.

Thirteen participants with IDs A to M were placed in one classroom and the remaining participants with IDs N to Z were led to the other room by a research assistant. Subjects with IDs A to M were assigned the role of Player A, whereas subjects with IDs N to Z were assigned the role of Player B. Subjects were informed that they would be paired with another person in the other room and that their true identities would never be revealed, even to the researcher. Subjects were given approximately 20 minutes to read the instructions and make a choice on the response sheet. When all subjects had made their decisions, all of the sheets were collected.

After the completion of the prisoner's dilemma game, the assistants handed out the instructions of the dictator game (the name of the game was not revealed) to subjects in both rooms. However, subjects in both rooms were assigned the role of the proposer, but

they were told that subjects in the other room had been assigned the role of receivers. Subjects were also informed that they would be paired with another person who was not the same partner from the first game. Each subject was endowed with 200 Baht, and they had to decide how much of the endowment they wished to allocate to the receiver. They were given approximately 20 minutes to decide, and the response sheets were all collected.

All subjects were required to complete a questionnaire on their ethical orientations and their demographics at the end of the experiment. The subjects were mostly females (72%), and relatively young with an average age of 34.40. Majority of them (97%) have at least a bachelor's degree, and all of them are Buddhists. Each session took approximately one and a half hours to complete. Each subject's average earnings from the experiment (consisted of the show-up fee of 100 Baht and the payoffs from both games) was 330.93 Baht.

Results

Ethical Orientations

The results in this section focused only on the four control sessions, comprising of 104 subjects, in order to eliminate the possible effects from the ethics training. Thai subjects' average idealism and relativism figures were 0.711 and 0.605, respectively; the results being quite similar to the cross-country study by Forsyth et al. (2008) in which Thais' idealism and relativism scores were 0.730 and 0.622, respectively. Forty-two percent of the subjects were classified as situationists and were highly relativistic and idealistic. The absolutists and subjectivists represented 30% and 22% of the subjects, respectively. As presented in Table 2, the remaining 6% were exceptionists.

Different ethically-oriented individuals varied in their performances in the prisoner's dilemma and dictator games (see Table 3). In the prisoner's dilemma game, absolutists showed the highest cooperation rate of 42%, followed by situationists and exceptionists. As expected, subjectivists who do not adhere to moral rules and pay less attention to others' welfare have the lowest cooperation rate of 30%. As for the dictator game, exceptionists' average allocation was 100 Baht, which is the highest compared to other orientations. Subjectivists registered the lowest allocation of 55.43 Baht.

When logistic regression was conducted, ethical orientations and demographics did not statistically influence cooperation rates in the prisoner's dilemma game, as presented in Table 4. As for the dictator game, exceptionists who are rule followers appear to be the most altruistic, with the highest allocation of 46.92 Baht, relative to subjectivists. On the other hand, situationists whose concerns are more focused on others' welfare also contributed 25.06 Baht more than subjectivists. As for demographic factors, although age, gender, and income levels do not determine other-regarding behavior, those with an education level below a bachelor's degree allocated 61.53 Baht more, regardless of their ethical orientations. As a result, H1 is rejected while H2 is accepted, but only

Table 2. *Ethical Ideologies of Subjects*

	High Relativism	**Low Relativism**
High Idealism	Situationists 42%	Absolutists 30%
Low Idealism	Subjectivists 22%	Exceptionists 6%

Table 3. *Cooperation and Allocations Among Different Ethical Orientations*

	Situationists	Absolutists	Subjectivists	Exceptionists
Cooperation rate (%)	39%	42%	30%	33%
Allocation (Baht)	78.98	59.68	55.43	100.00

Table 4. *Regression' Results on Ethical Orientations*

	Cooperation		Allocations	
	Coefficient	**Std. Error**	**Coefficient**	**Std. Error**
Exceptionists	0.067	1.040	46.916**	22.929
Situationists	0.280	0.599	25.061*	13.222
Absolutists	0.338	0.636	8.886	14.236
Age	0.049	0.031	-0.263	0.700
Male	0.191	0.481	-5.583	10.927
Bachelor_Low	0.739	1.301	61.534**	29.566
Income_Low	1.032	1.018	9.073	23.499

*Note: N = 104. Subjectivists are the reference for both models. Cooperation rate in the Prisoner's Dilemma game is a dummy where 1 = Cooperation and 0 = No cooperation. Allocation is the allocated amount to the receiver in the Dictator game. ** p-value < 0.05 and * p-value < 0.10.*

for exceptionists and situationists. Similar regressions (not presented here) were conducted on relativism and idealism as independent variables, but the results yielded insignificant results.

Short-Term Ethics Training

Results from the prisoner's dilemma game with all 156 participants revealed that 38% of the subjects decided to cooperate even when the economic equilibrium predicts a 0% cooperation rate. However, as presented in Figure 2, when subjects were exposed to a short ethics training session, the cooperation rate rose to 62%.

Out of the endowment of 200 Baht in the dictator game, subjects allocated 79.01 Baht on average to the other players. This 39.51% contribution is considered to be higher than the average figure of 28.35%, based on the meta-study by Engel (2011). Although it appears that Thai subjects are relatively selfless, prosocial behavior is more pronounced with exposure to short-term ethics training. As shown in Figure 3, subjects who had been through the ethics module proposed 98.56 Baht or almost half of the endowed money. In other words, a short ethics module successfully neutralized the self-interest motivation by raising the allocated amount by 42.36%.

Figure 2. Cooperation and defection rates in the prisoner's dilemma game.

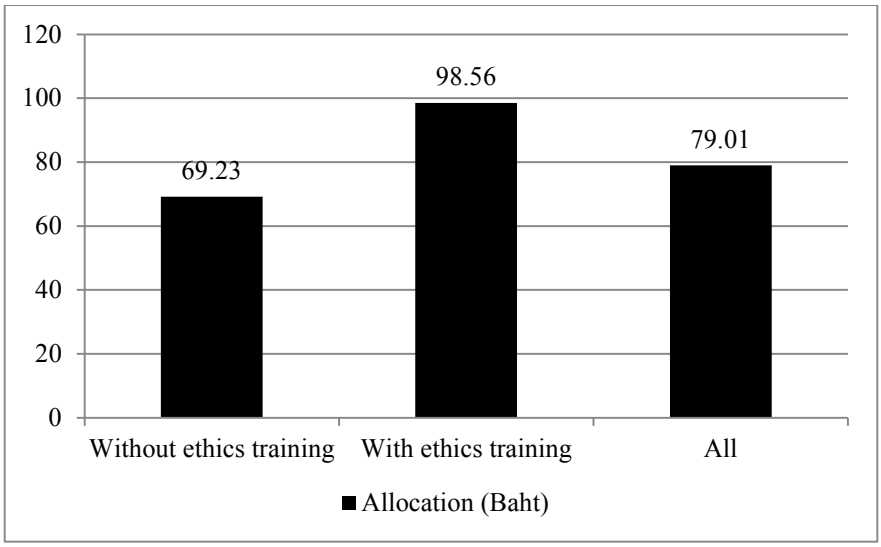

Figure 3. Allocation in the dictator game.

Table 5. *Results from Dictator Game's Allocations*

	Without ethics training	**With ethics training**
Proposal of 200 Baht	6%	10%
Proposal of 100 Baht	37%	62%
Proposal of 0 Baht	17%	8%

It should be pointed out that the dictators' allocation is sensitive to several attributes, including the source of the endowment. When the endowment is given without any required effort, previous studies showed that dictators contributed more generously than when they had to "earn" the money, where property rights or the feeling of ownership are present (Oxoby & Spraggon, 2008; Korenok, Millner, & Razzolini, 2017). Dictators whose endowments were earned generally allocated close to 0%, whereas the allocation of the windfall money could be around 20% to 30% when the experiments were conducted in developed countries (Cherry, Frykblom, & Shogren, 2002; Oxoby & Spraggon, 2008; Engel, 2011). Dictators' allocation from this study's baseline treatment (no ethics training) is slightly higher at 34.62%, which could be attributed to cultural reasons given that several measures have been employed to minimize the EDE. After the short ethics training, subjects allocated 49.28% or almost half of their endowment, as presented in Figure 3. Because both treatments (with and without training) relied on the same experimental procedure and subjects from the same culture, the difference in dictators' allocations can be attributed essentially to the training itself.

When subjects were not exposed to short-term ethics training, 37% of them decided to allocate half of the endowment to the other player, and 17% behaved according to the economic equilibrium prediction. On the other hand, a short ethics training module motivated people to give more, as a majority of them (62%) gave half of the endowment. The proportion of those who allocated nothing, the so-called pure gamers, was low; the figure was only 8% as shown in Table 5.

The results from the one-tailed t-tests point out that short-term ethics training statistically raises the cooperation rate in the prisoner's dilemma game and the allocation amount in the dictator game, as shown in Table 6. The regression results in Table 7 confirm that ethical training statistically influences other-regarding behavior; this variable raised the cooperation rate and the allocation amount in the prisoner's dilemma and dictator games. As a result, both H3 and H4 are supported.

Table 6. *Results From T-Test Between Those Without and Those With Ethics Training*

	p-value
Cooperation in the Prisoner's Dilemma game	0.0024
Allocation in the Dictator game	0.0165

Table 7. *Regression' Results on Ethical Orientations*

	Cooperation		Allocations	
	Coefficient	**Std. Error**	**Coefficient**	**Std. Error**
Exceptionists	0.136	0.736	33.576	16.726**
Situationists	0.046	0.468	35.467	10.547**
Absolutists	0.293	0.507	17.481	11.568
Age	0.044	0.023*	-0.336	0.513
Male	-0.113	0.397	4.506	8.933
Bachelor_Low	1.318	1.172	20.292	22.425
Income_Low	0.628	0.722	16.245	16.006
Ethics Training	1.007	0.373**	30.200	8.510**

*Note: N = 156. Subjectivists are the reference for both models. Cooperation rate in the Prisoner's Dilemma game is a dummy where 1 = Cooperation and 0 = No cooperation. Allocation is the allocated amount to the receiver in the Dictator game. ** p-value < 0.05 and * p-value < 0.10.*

Conclusion

Results from the economic game experiments in Thailand show that people are not solely motivated by self-interest as equilibrium predictions are not generally observed. Contrary to previous studies, which generally show the direct effect of idealism on ethical attitude (Ramasamy & Yeung, 2013), idealism and relativism of Thai subjects do not correlate with prosocial behavior. Ethical orientations do not consistently explain ethical behavior; specifically, people with different ethical ideologies do not statistically have different cooperation rates in the prisoner's dilemma game. Most Thai subjects are classified as situationists who care for others' wellbeing, and these situationists expressed altruistic behavior only in the dictator game. Absolutists did not reveal prosocial behavior in this experiment, but exceptionists, on the other hand, were seen as being more likely to allocate more generously to strangers, contrary to previous studies.

Short-term ethics training effectively neutralized the influence of self-interest by enhancing the prosocial behavior of Thai participants. After the training, the cooperation rate in the prisoner's dilemma game was at 62%, compared to the non-training rate of 38%. As for the dictator game, the allocation rate went up from 35% to 49% of the endowment after the ethics training compared to Engel (2011)'s meta-analysis average allocation of 28%. When subjects were exposed to such ethics training, albeit for only a short duration, they consistently displayed other-regarding behavior.

The optimistic implication from the experimental results is that ethical behaviors can be shaped and taught, although an individuals' judgment is governed by certain ethical orientations or ideology. Currently, economic games such as the prisoner's dilemma have been employed in classrooms to teach economic equilibrium (Dickie, 2006). The results of this study suggest that a business ethics' perspective could be integrated into the same games (James, 1998). Business students should be reminded that there is an ethical dilemma between a group gain and the individual's benefit in many business situations. An action that causes harm to others is not ethical, even though an ethical choice could result in higher costs (or lower profits) to firms. Such reminders would seem to affect people's moral judgments and behavior. In addition, the fact that this experiment was conducted with nonstudents implies that the effectiveness of

a short training module is not limited only to the classroom environment; instead, such a module could also be applied to the corporate environment.

Limitations and Future Research

One of the limitations of this study is related to the ethics training itself because it is evident that participants in the experiments were sensitive as to how the experiment was designed or framed (Oxoby & Spraggon, 2008; Korenok, Millner, & Razzolini, 2014). Variations of the ethics training in terms of its context, content, or duration should be pursued to verify its effectiveness.

Another challenge of this study lies in the immediate measurement of ethical behavior directly after the training, which cannot lead us to a conclusion about the lasting impacts of such training. Future research could address this issue by having an interval between the ethics training and the experiment. Based on my knowledge, there has not been any study which monitors the long-term effects of ethics training in an experimental setting. In other settings, ethics training seemed to be effective only in the short term (e.g., Richards, 2010). It would be interesting to study the effectiveness of these inexpensive trainings, particularly as to whether repeated trainings would have a lasting effect, or those effects would diminish over time. In addition, it should be pointed out that this experiment was conducted with strangers on one-shot decision-making games. As a result, the outcome could potentially be different with repeated games, or when interactions among participants are allowed. One should be aware of these conditions, prior to making generalizations on experimental outcomes in a variety of other contexts.

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