



Title	ESSAYS IN BEHAVIORAL AND EXPERIMENTAL ECONOMICS : INVESTIGATIONS IN THAILAND
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Abstract of Thesis

Name (Sarunu Jitsophon)	
Title	ESSAYS IN BEHAVIORAL AND EXPERIMENTAL ECONOMICS: INVESTIGATIONS IN THAILAND (行動経済学と実験経済学における諸論文：タイの調査)
Abstract of Thesis This dissertation makes an extensive use of experimental methodologies to examine various topics in behavioral economics. The dissertation consists of four chapters, each presenting an empirical analysis of a laboratory or a field experiment conducted in Thailand. The first chapter discusses a field experiment designed to investigate the adverse effect of employer's control, specifically production targeting, on worker motivation. The study is based on a laboratory experiment by Falk and Kosfeld (2006). In their principal-agent game, F&K found that when principal attempted to control agent's productivity, by imposing minimum effort requirement, a majority of the agents would retaliate by choosing lower level of effort than they would have otherwise chosen if the principal chose not to exert control. The result is in contradiction with evidences from goal-setting theory from psychology which show that an individual with specific goal (e.g., I want to run 10 kilometers) would perform better than an individual without specific goal (e.g., I want to run as far as possible). The aim of this chapter is to replicate F&K's results in real-effort working environment. In the experiment, participants were hired as part-time worker to fold origami cranes for 6 hours. They were randomly assigned into one of the two treatments: <i>NOTARGET</i> and <i>TARGET75</i> treatments. Participants in <i>NOTARGET</i> treatment were requested to "do-your-best" throughout the task, while participants in <i>TARGET75</i> treatment were requested to fold at least 75 cranes. The results of the experiment showed that the productivity of participants in <i>TARGET75</i> treatment fell drastically once they had folded 75 cranes, while the productivity of participants in <i>NOTARGET</i> treatment continued to increase even after they had folded more than 75 cranes. Due to this, the aggregate production in <i>TARGET75</i> treatment was significantly lower than the aggregate production in <i>NOTARGET</i> treatment. Building upon the results from the first chapter, the second chapter discusses a field experiment designed to investigate both the adverse and beneficial effects of production target on worker motivation.	

In the experiment, participants were hired as part-time worker to fold origami cranes for 6 hours per day for two consecutive days. They were randomly assigned with of the four treatments: *TARGET100*, *TARGET150*, *TARGET200*, and *NOTARGET* treatments. Participants in *NOTARGET* treatment were requested to “do-your-best”. Participants in *TARGET100*, *TARGET150*, and *TARGET200* treatments were requested to fold at least 100 cranes, 150 cranes, and 200 cranes, respectively, for each day of the task.

The results of the experiment showed that early in the task, the productivity of participants with production target was higher than the productivity of participants in *NOTARGET* treatments. However, once participants with production target had fulfilled their target, their productivity drastically fell. The productivity of participants in *NOTARGET* treatments did not fall even after they had achieved similar level of aggregate production. The two opposing effects caused the aggregate production in *NOTARGET* treatment to be higher than the aggregate production in *TARGET100* treatment, but to be lower than the aggregate production in *TARGET200* treatment. High production target, however, took its toll on worker morale. Participants in *TARGET150* and *TARGET200* treatments were significantly less likely to participate in the second day of the task relative to participants in *TARGET100* and *NOTARGET* treatments.

The findings from the first and the second chapter showed that too low production target decreased worker productivity, while too high production target increased worker absenteeism. In contrary to goal-setting literature, in some cases it might be better off not to set any goal at all.

The third chapter discusses a field experiment designed to investigate the influence of social pressure from peers on individual’s voluntary contribution to charity. While there are a number of researches that investigate the effect of social pressure on individuals’ pro-social behavior, so far no study investigates the influence of social pressure from donors’ own peers on the donors’ pro-social behaviors.

In the experiment, participants were solicited to make a voluntary contribution to charity organization. Half of the participants made their contribution decision alone, while the other half made their decision in the presence of their peers. The contribution had to be made in a sealed envelope, therefore the amount of money contributed by a donor was the donor’s private information.

The results showed that participants who made their contribution decision in the presence of their peers were significantly more likely to make a contribution relative to those who made their decision alone. However, as the amount of money contributed was donor’s private information,

the presence of peers did not have any influence on donor's monetary contribution. The findings from this study provided a field evidence that highlighted the importance of social influence from the peers on individual's pro-social behavior.

The fourth chapter discusses a laboratory experiment designed to investigate two distinct types of house money effects on individual's bidding behavior in multiple-period all-pay auction environment. While it has been intensively studied, prior studies did not make a distinction between two distinct types of house money: 1) from *unearned* gain and 2) from *earned* gain.

In the experiment, participants participated in 40 rounds of all-pay auction. Participants was randomly assigned into one of the two treatments: 1) *windfall-wealth* treatment and 2) *earned-wealth* treatment. In windfall-wealth treatment, participants received windfall seed money, while in earned wealth treatment, participants had to earn their own seed money from a separate task. The first type of house money could be studied by comparing the differences in biddings behavior of participants in *windfall-wealth* and *earned-wealth* treatment. The second type of house money could be studied by comparing the effect of last period gain and loss on individuals' bidding behavior in the current round.

The results of the study showed that bidders who were endowed with unearned seed money bid more aggressively than those who had to earn their own seed money. These results implied that unearned seed money may cause biasness individuals' behavior. On the other hand, the results showed that prior gain or prior loss from previous period of the auction did not have any effect on individuals' bidding behaviors in current period.

論文審査の結果の要旨及び担当者

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論文審査の結果の要旨

[論文内容の要旨]

This dissertation is composed of four essays based on economic experiments conducted in Thailand.

Chapter 1 investigates the adverse effect of employer's control, specifically production targeting, on workers' motivation and performance. To do so, the author conducts a randomized field experiment, in which participants are told to fold origami cranes for 6 hours under one of the *NOTARGET* and *TARGET75* treatments, where the participants in treatment *NOTARGET* are requested to "do-your-best" throughout the task, whereas those in treatment *TARGET75* are told to fold at least 75 cranes. The experimental results show that the productivity of participants in *TARGET75* falls drastically once they fold 75 cranes, and is much lower than that in *NOTARGET*, in which the productivity continues to increase even after they finish folding more than 75 cranes.

By designing an extended version of the field experiment conducted in the previous chapter, Chapter 2 focuses on both the adverse and beneficial effects of production targets on workers' motivation. Here participants are told to fold origami cranes for 6 hours per day for two consecutive days in randomly assigned four treatment groups: *TARGET100*, *TARGET150*, *TARGET200*, and *NOTARGET*, where participants in the *NOTARGET* treatment are requested to "do-your-best" and those in the *TARGET100*, *TARGET150*, and *TARGET200* treatments are requested to fold at least 100, 150, and 200 cranes, respectively, for each day of the task. As in the previous chapter, although early in the task the productivities of the participants in the target treatments are shown to be higher than those in the *NOTARGET* treatment, once participants with production targets fulfill their targets, their productivities drastically fall, whereas productivity in the *NOTARGET* treatment does not fall even after they had achieved similar level of aggregate production. In total, the aggregate production in the *NOTARGET* treatment is higher than that in the *TARGET100* treatment, is lower than that in the *TARGET200* treatment. However, excessively high production target impairs worker morale: participants in the *TARGET150* and *TARGET200* treatments are significantly less likely to participate in the second day of the task than those in the *TARGET100* and *NOTARGET* treatments. Combining the findings in Chapters 1 and 2 results in that too low production target decreases workers' productivity, while too high production target increases workers' absenteeism. In contrary to the goal-setting literature, it could be better off not to set any goal.

Chapter 3 is a field experimental study to investigate the influence of social pressure from peers on individuals' voluntary contributions to charity. Participants are solicited to make a voluntary contribution to charity organization. Half of them make their contribution decision alone, while the other half make their decision in the presence of their peers. The contribution has to be made in a sealed envelope. The amount of money contributed is thus the donor's private information. The results show that participants who made their contribution decision in the peer pressure treatment are significantly more likely to make a contribution than those in the alone-decision treatment, whereas the presence of peers does not have any influence on the amount of donor's contribution, reflecting that the amount is donors' private information. The findings provide field evidence that social influence from the peers is important in understanding individuals' pro-social behaviors.

Chapter 4 investigates house money effects on individual's bidding behavior in multiple-period all-pay auction environment. In the experiments, participants are randomly assigned into one of the two treatments: 1) windfall-wealth treatment, in which the participants received windfall seed money, and 2) earned-wealth treatment, in which participants have to earn their own seed

money from a separate task. The results show that participants in the windfall-wealth treatment bid more aggressively than those in the earned-wealth treatment, implying that unearned seed money may cause biasness in individuals' behavior. It is also found that prior gain or prior loss from previous periods of the auction does not have any effect on individuals' bidding behaviors in current periods.

[審査結果の要旨]

本研究では、タイにおけるフィールド実験を通じて、（１）生産目標設定が作業者のモチベーションと生産性に及ぼす効果、（２）社会的圧力（social pressure）が自主的な寄付行動に与える影響、および（３）偶発的所得と勤労所得を区別したハウス・マネー効果の分析、という重要な問題について新しい知見を加えている。以上から、博士（経済学）に値すると判断する。