Reciprocity, Regret, and Reference Dependence: Essays in Applied Psychological Game Theory

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1 General Training and Reciprocity

It is a puzzle that empirical evidence finds that firm sponsors general training, a training that sponsors skills useful elsewhere, which is not explained by standard-preference theories. In this paper, I incorporate worker reciprocity into the analysis to see whether the theoretical conclusion changes. I show that the worker does not have to think the firm is treating her kindly given that she gets trained. Even so, the firm will still train, because the worker will negatively reciprocate—punish unkind behaviors—the firm if it does not train. I conduct a lab experiment, which supports the empirical implications of my model. In addition, I discuss novel implications about some relative policies, which can be tested empirically in future studies.

2 Test Reciprocity in a General Training Game

To test a theory using worker reciprocity to explain firm’s provision of general training, I conduct an experiment framed with labor relations where subjects can be either employers or workers. Employers decide whether to train the workers as well as the wages with and without training. Workers simultaneously indicate the wage-levels above which they will work with employers. I derive hypotheses to test whether the experimental observations can be explained well by the standard-preference models, the distributional-preference models and a reciprocity model by myself.

3 Buy it now or later, or not

By constructing a two-stage model, I show that it is profitable for a monopolist to offer a subscription payment option. The consumer chooses among “subscribe” in advance, purchase later, or don’t buy. If the consumer is loss averse, she is more likely to subscribe, the more risky option. This allows the monopolist to charge a premium on the subscription.
4 Regret Games
(joint with Martin Dufwenberg)
How do regret influence strategic interaction and risky choice? We develop a game-theoretic approach to exploring this issue. Regret is captured by the gap between the payoff a player actually gets and his expected counterfactual payoff from the would-be best strategy among foregone actions. Ex-post beliefs, therefore, determine a player’s regret, which is affected by a player’s information across end nodes. We find novel aspects regarding how players interpret chance moves, mixed strategies, and the playing orders.

5 Test a Theory of Regret
(joint with Martin Dufwenberg)
We test two hypotheses derived from a model considering a novel theory of regret. One implies that the existence of ex-post feedback may affect subjects’ ex-ante preference over two lotteries. The other indicates that the assumption of reversal-of-order can be violated given that subjects make decisions when anticipating potential regrets. We conduct an experiment where subjects make one-round decisions to test these two hypotheses.