Jeevant RAMPAL

Behavioral Economic Theory and Experimental Investigation

My research investigates *how* and *why* individuals' limitations in understanding decision problems, or behavioral biases, affect optimal choices. I develop behavioral theory and compare it with alternate existing theories using experimental methods.

My solo-authored job market paper, *Opponent's Foresight and Optimal Choices*, is an experimental study that investigates how and why the behavior of experienced players, who understand the "sure-win" strategy in a "winner-take-all" sequential move game, varies systematically based on two types of information about the opponent's expertise. Treatment (1): experienced subjects are told their opponent's experience-level in the game. Treatment (2): a different set of experienced subjects are only shown their opponent's play against a computer. I find that both (i) exogenous information, and (ii) endogenous inference about the opponent's inexperience increase the probability of the experienced players abandoning the "sure-win" strategy and trying for a higher payoff attainable only by winning from a losing position, i.e., possible only if the opponent makes a mistake. A maximum likelihood analysis shows that a model of limited foresight and uncertainty about the opponent's foresight explains the data better than the Dynamic Level-k (Ho and Su (2013)) and AQRE (McKelvey and Palfrey (1998)) models.

The theoretical model that explains my job market paper's data the best is derived from my second solo paper called *Limited Foresight and Learning Equilibrium* (LFLE). This paper defines the LFLE, a bounded rationality equilibrium concept applicable to finite, perfect information games. The LFLE models a framework where agents have limited foresight and uncertainty about the opponents' foresight. LFLE entails each player updating about the opponents' foresight *within* the play of a game, and consequently, high foresight players account for reputation effects in order to optimize. LFLE is shown to rationalize the experimental findings on the Centipede game and the Sequential Bargaining game.

My third paper, co-authored with A. Banerji, is *Loss Aversion and Willingness to Pay for New Products*. This paper reports and models the discrepancy between the "full bidding" and "endow and upgrade" findings from a willingness-to-pay (WTP) elicitation Becker-Degroot-Marschak experiment for an improved food product, conducted in rural India. We found that the distribution of the WTP for exchanging local pearl millet (LPM) for biofortified high-iron pearl millet (HIPM) dominated the distribution of the difference between the WTPs for the two. Thus the data (i) rejects preferences that are standard or have status quo reference points, in favor of an expectations-based reference dependence model of loss aversion for the novel product; and (ii) is used to identify and estimate the loss aversion parameter and latent consumer valuations for HIPM in the consumer model.

In my publication in *Food Policy, July (2016)*, co-authored with A. Banerji, E. Birol and B. Karandhikar, we study the impact of information, branding, and certification on the WTP for HIPM. Our findings informed the optimal method for delivering HIPM to consumers to help alleviate iron deficiency.

In my future work I plan to finish three works in progress. In the first project, I plan to analyze the data from a bargaining experiment that I conducted. I am testing the hypothesis that the high proportion of disadvantageous counter-proposals observed in the literature is due to limited foresight. In the second project, I model the US election format of primaries followed by general election using a model of multi-stage contest among teams with factions. I have solved for the equilibrium, and I plan to test the predictions using an experiment. In the third project, I theoretically explore the entry decision of two firms in a market where the consumer's preferences are uncertain. There is a first mover advantage, but the second mover can learn about the consumer's preferences by observing the first firm.