DISSERTATION ABSTRACT

Essays on Applied Microeconomic Theory: Frictions in Conspicuous Consumption and Bayesian Persuasion

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This dissertation investigates three applied microeconomic theory topics related to the frictions in information transmission in different scenarios that have received increasing attention in the existing literature, yet have not been thoroughly explored.

In the first chapter of this dissertation, I discuss asymmetric information regarding market demand as a friction in conspicuous consumption, where the price becomes a signal that conveys information about exclusivity to consumers and shapes the equilibrium. In conspicuous consumption, if consumers lack information on actual demand, they are uncertain about the exclusivity for which they are willing to pay a premium. We show that the price set by a monopolistic seller who has full knowledge of demand distribution can serve as a signal for consumers to estimate the exclusivity of the product, which is essential for supporting conspicuous consumption. Conspicuous consumption supported by the price signal mechanism exhibits a conventional pattern of selling to fewer consumers at a higher markup. However, the nature of this mechanism tends to cause consumers to underestimate the conspicuous value, sometimes resulting in a loss for the seller or even the elimination of conspicuous consumption. Our findings are robust in contexts where consumer types are subject to binary and continuous distribution.

In the second chapter of my dissertation, I discuss the over-persuasion issue in the Bayesian persuasion game as a result of the Receiver's heterogeneous prior belief, and how the Sender can create friction to improve the persuasiveness in this scenario. The effect of Bayesian persuasion depends on the Receiver's prior belief. When the persuasive message must be broadcast, an optimal persuasion strategy chosen for one Receiver may over-persuade some other Receivers with different prior beliefs, resulting in a negative persuasion value. We design a mechanism in which contract transfer is contingent on signal realization. The agents have the option of accepting the contract and revealing the persuasion signal, or rejecting it and maintaining their prior beliefs.

This mechanism, which also aims to improve persuasiveness, is designed to discourage certain Receivers from engaging in persuasion, as opposed to the conventional approach, which encourages Receivers to accept persuasive messages tailored to their types from a menu. By leveraging the conformation bias based on the Receiver's heterogeneous prior beliefs, incentive compatibility is easier to implement in this signal-contingent mechanism. Additionally, the signal-contingent mechanism allows a persuasive message be broadcast to all Receivers, making it more practical in the real world.

In the final chapter of this dissertation, I discuss how the Receiver's inattention as a friction in a Bayesian persuasion game can motivate the Sender to strategically choose a sequential rather than static pattern to persuade in order to improve persuasiveness. In a Bayesian persuasion game, when a Sender realizes he cannot immediately convince an inattentive Receiver to make a desirable decision immediately, he emphasizes persuading the Receiver to be persuadable in his next attempt. In an endogenously sequential persuasion model, we show that the Sender may favor sequential persuasions over static persuasions when the Receiver is rationally inattentive. The Sender designs experiments to increase the likelihood of a bad signal occurring in the current stage but makes it less bad when it occurs to accommodate for the subsequent persuasion attempt. This tactic decreases the success rate of the current persuasion but creates or increases the Receiver's willingness to be persuaded again if the current persuasion attempt fails. If the Sender is permitted more persuasion attempts, the experiments he conducts during each attempt will transmit less information and leads to "piecemeal" information disclosure. With more opportunities to persuade, a small rate of success in each attempt accumulates into a large one, thereby making the sequential persuasion more effective than the static persuasion.