

## Summary:

Central to economics is the study of how individual decisions, when aggregated, lead to market outcomes. Individual decisions, in turn, are shaped on the one hand by idiosyncratic features of the decision makers, such as preferences and cognitive abilities/biases, and on the other hand particulars of the market setting they are making decisions within. For example, a consumer might choose a phone online based on her preferences, the information made available (e.g. by suppliers), and her ability to process that information. In order to fix ideas we focus the discussion of our research on three main areas: (1) consumer choice, (2) financial markets, and (3) contests and mergers. We will focus on the cognitive aspects of decision making in these environments, which apply more generally. Methodologically, we will employ a combination of theory, experiments, and analysis of field data. Our experimental laboratory, LaTeX, is one of only seven economics labs in Spain.

1. In the canonical consumer choice problem consumers choose one alternative from a list of goods, or menu. First, we will study how this choice is affected by the consumers pre-choice search for relevant information. We study how search behavior compares to that of an optimal benchmark, and what we learn about the cognitive processes/limitations of decision makers as a result. Second, we investigate the puzzling tendency of people to exhibit preference reversals, or a systematic difference in revealed preferences due solely to the method of elicitation. We suspect that these reversals may, at least in part, be an artifact of existing experimental designs, in which subjects are forced to choose among abstract goods such as lotteries. The conjecture is that the rate of reversals will decrease if choice is made voluntary, and if the menu consists of real consumer goods.
2. The stability, or instability, of financial markets depends critically on the investment decisions made by individuals, which in turn depend on individuals beliefs. To the extent that cognitive biases are commonly shared, this can lead to systematic movements in the market (such as bubbles) that pose a grave danger to the stability of the global economy. We study the cognitive primitives underlying belief formation in financial markets, as well as other environments in which information arrives over time. In particular, we will propose and test a model that can explain the persistence of gamblers fallacy beliefs (alternation bias) and hot hand fallacy beliefs (momentum bias). In addition, we explore the role of cognitive dissonance in the well-known disposition effect (in which winning securities are sold and losers are kept). Finally, in level-k models of non-equilibrium behavior, we study how the level of reasoning employed by decision-makers relates to their underlying cognitive capacity.
3. We study various contexts in which groups either compete over scarce resources or merge. First, we study contests with incomplete information in order to understand the dynamics of promotions when two competing groups differ in (cognitive) ability, so exert differing levels of effort in the contest. Second, we study how a public good is allocated across multiple competing groups in a society (e.g. natives and immigrants) when one group (e.g. immigrants) is or is not extended the right to vote. Third, we study whether existing results on mergers in single-sided markets extend to multisided markets.