

Feedback Information and Anticipated Regret in First-price Sealed-bid Auctions
– A Physioeconomic Approach –

Caroline Jähnig¹, Marc T.P. Adam², Stefan Seifert²

¹Forschungszentrum Informatik, Karlsruhe

²Karlsruhe Institute of Technology, IISM

Abstract

Recent research strengthens the conjecture that human decision making stems from a complex interaction of rational judgment and emotional processes. A prominent example of the impact of emotions in financial decision making is the effect of regret-related information feedback on bidding behavior in first-price auctions. This paper reports on an experiment that draws upon psycho-physiological measures that seek to improve the understanding of emotional processes in economic decision making: Announcing that after the auction, the highest bid will be revealed results in more aggressive bids than in the theoretical risk neutral Bayes equilibrium. This finding has been explained by the bidders' anticipation of loser regret in their bidding decisions. The explanation, however, is still hypothetical and little is known about the actual emotional processes that underlie this phenomenon. We bridge this gap by providing an approach that combines economic auction experiments with psycho-physiological measures which indicate emotional involvement. The experiment comprises four different information feedback treatments: The revelation of the highest bid (loser regret treatment), the 2nd highest bid (winner regret treatment) and two control treatments in which both or none of these two bids are revealed. In line with previous work we find that announcing to reveal loser regret information leads to an increase in the bid/value ratio. We investigate how physiological measures of pre-decisional arousal relate to this bidding behavior.