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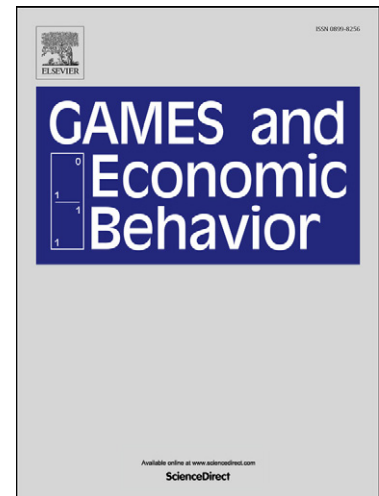
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Strategic sophistication and attention in games: an eye-tracking study

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Abstract

We used eye-tracking to measure the dynamic patterns of visual information acquisition in two-player normal-form games. Participants played one-shot games in which either, neither, or only one of the players had a dominant strategy. First, we performed a mixture models cluster analysis to group participants into types according to the pattern of visual information acquisition observed in a single class of games. Then, we predicted agents' choices in different classes of games and observed that patterns of visual information acquisition were game invariant. Our method allowed us to predict whether the decision process would lead to equilibrium choices or not, and to attribute out-of-equilibrium responses to limited cognitive capacities or social motives. Our results suggest the existence of individually heterogeneous-but-stable patterns of visual information acquisition based on subjective levels of strategic sophistication and social preferences.

Keywords: game theory, strategic sophistication, social preferences, attention, eye-tracking

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