

Department of Economics – Neuroeconomics Seminar

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Multialternative decision by sampling: A model of decision making constrained by process data

Sequential sampling of evidence, or evidence accumulation, has been implemented in a variety of models to explain a range of multialternative choice phenomena. But the existing models do not agree on what, exactly, the evidence is that is accumulated. They also do not agree on how this evidence is accumulated. In this article, we use findings from process-tracing studies to constrain the evidence accumulation process. With these constraints, we extend decision by sampling model and propose the multialternative decision by sampling (MDbS) model. In MDbS, the evidence accumulated is outcomes of pairwise ordinal comparisons between attribute values. MDbS provides a quantitative account of the attraction, compromise, and similarity effects equal to that of other models, and captures a wider range of empirical phenomena than other models.