Stochastic Choice and Optimal Stopping

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ABSTRACT

We propose a model of individual choice behavior that makes joint predictions about the probability distribution of choices and response times. In our model the agent receives noisy signals by inspecting the alternatives and optimally chooses when to stop learning and make a decision. We show that the continuation region is collapsing as the time passes, which has implications for the relationship between the choice probabilities and response times that are different from the related drift-diffusion models (DDM), which are are used in psychology and neuroscience and have constant continuation regions.

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