

Recursive Rational Inattention Is Entropic
(joint work with Henrique de Oliveira)

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Abstract

We study a rationally inattentive agent who, each period, acquires costly information about an evolving state and chooses an action. We say that her valuation of dynamic decision problems is recursive if it satisfies the Bellman equation for each problem. The main result is that if her valuation is recursive then the corresponding cost of information is entropic—that is, linear in the reduction in entropy of beliefs. This result corresponds to a converse to Steiner, Stewart, and Matějka (2017), who showed that if the cost is entropic, her valuation is recursive for each dynamic decision problem.