Axiomatization of optimal inattention model with infinite state space*

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Abstract

Economic agents are usually not fully attentive to all available information perhaps because of limited cognitive resources. Several recent studies axiomatically characterize models of rational inattention that capture this intuition. Ellis (2018), one of them, provides a general conceptual framework to analyze various phenomena related to rational inattention. However, its applicability is limited because it considers only uncertainty described by a finite state space. The present paper generalizes its characterization result to accommodate infinite state space. The main result characterizes choice behavior that can be interpreted as a solution of a two-step optimization procedure: first, choose a σ-algebra that is interpreted as a signal, then choose an alternative according to the acquired information.

KEYWORDS: Optimal inattention, Information acquisition, Information cost

JEL CLASSIFICATION: D01, D81, D83

*This work was supported by Grant-in-Aid for JSPS Research Fellow JP18J12252.

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