PRE-PROBABILISTIC SOPHISTICATION WITHOUT MONOTONICITY OR EVENT NON-SATIATION

Osamu Kada

Faculty of Engineering, Yokohama National University
79-5 Tokiwadai, Hodogaya, Yokohama 240-8501, Japan

(E-mail: smkada@ynu.ac.jp)

January, 2009

We consider pre-probabilistic sophistication where an agent's two-outcome act is based on a probabilistic belief over a finite λ-system of events. We identify the likelihood relation on the events such that if an agent is pre-probabilistically sophisticated, then its probability measure must represents the likelihood relation. We give conditions on the relation that characterize pre-probabilistic sophistication. As a corollary, we get a characterization of probabilistic sophistication over a finite λ-system of events without assumptions of event non-satiation imposed by Chew and Sagi (2006), monotonicity, continuity, or comparative likelihood imposed by other authors.

Keywords: Subjective probability, uncertainty, likelihood consistency, nonexpected utility, pre-probabilistic sophistication, probabilistic sophistication.