

Economic Theory, Decision Theory and Experimental Economics
Seminar

Allais, Ellsberg, and Preferences for Hedging

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Abstract

We study the relation between ambiguity aversion and the Allais paradox. To this end, we introduce a novel definition of hedging which applies to objective lotteries as well as to uncertain acts, and we use it to define a novel axiom that captures a preference for hedging which generalizes the one of Schmeidler (1989). We argue how this generalized axiom captures both aversion to ambiguity, and attraction towards certainty for objective lotteries. We show that this axiom, together with other standard ones, is equivalent to two representations both of which generalize the MaxMin Expected Utility model of Gilboa and Schmeidler (1989). In both, the agent reacts to ambiguity using multiple priors, but does not use expected utility to evaluate objective lotteries. In our first representation, the agent treats objective lotteries as ‘ambiguous objects,’ and use a set of priors to evaluate them. In the second, equivalent representation, lotteries are evaluated by distorting probabilities as in the Rank Dependent Utility model, but using the worst from a set of such distortions. Finally, we show how a preference for hedging is not sufficient to guarantee an Ellsberg-like behavior if the agent violates expected utility for objective lotteries. We then provide an axiom that guarantees that this is the case, and find an associated representation in which the agent first maps acts to an objective lottery using the worst of the priors in a set; then evaluates this lottery using the worst distortion from a set of convex Rank Dependent Utility functionals.