

Investigating Salience Theory's Implications for Real-Life Decision Making: An Experimental Test for Whether the Allais Paradox Exists under Subjective Uncertainty

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Abstract : We deal with the effect of correlation between prospects on human decision making under uncertainty as proposed by the comparatively new and promising model of "salience theory of choice under risk". In this regard, we show that the theory entails the prediction that the inconsistency of choices, known as the Allais paradox, should not be an issue in the context of "real-life decision making", which typically corresponds to situations of subjective uncertainty. The Allais paradox, probably the best-known anomaly regarding expected utility theory, would then essentially have no practical relevance. If, however, empiricism contradicts this prediction, salience theory might suffer a serious setback. Explanations of the model for variable human choice behavior are mostly the result of a particular mechanism that does not come to play under perfect correlation. Hence, if it turns out that correlation between prospects - as typically found in real-world applications - does not influence human decision making in the expected way, this might to a large extent cost the theory its explanatory power. The empirical literature regarding the Allais paradox under subjective uncertainty is so far rather moderate. Beyond that, the results are hard to maintain as an argument, as the presentation formats commonly employed, supposedly have generated so-called event-splitting effects, thereby distorting subjects' choice behavior. In our own incentivized experimental study, we control for such effects by means of two different choice settings. We find significant event-splitting effects in both settings, thereby supporting the suspicion that the so far existing empirical results related to Allais paradoxes under subjective uncertainty may not be able to answer the question at hand. Nevertheless, we find that the basic tendency behind the Allais paradox, which is a particular switch of the preference relation due to a modified common consequence, shared by two prospects, is still existent both under an event-splitting and a coalesced presentation format. Yet, the modal choice pattern is in line with the prediction of salience theory. As a consequence, the effect of correlation, as proposed by the model, might - if anything - only weaken the systematic choice pattern behind the Allais paradox.

Keywords : Allais paradox, common consequence effect, models of decision making under risk and uncertainty, salience theory

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