Mathematical Models of Rational Decision, Disjunction Effects and Dynamic Inconsistency

Kahnemann and Tversky (1981) argue that Framing Effects entail preferences inconsistent with the basic axioms of the Expected Utility Theory. They also claim that their Prospect Theory can account for such effects. Likewise, Tversky and Shafir (1992) use the Prospect Theory to explain the Disjunction Effect, which involves preferences that do not satisfy the Sure Thing Principle. However, they consider this principle as a basic assumption of rational choice theory. Barkan and Busemeyer (1999) also resort to Prospect Theory in order to account for changes in preference orderings forbidden by the Dynamic Consistency Principle. In this paper, we analyse Disjunction Effect and Dynamic Inconsistency, to asses if they can be regarded as evidence against the Expected Utility Theory. We also question the account of these experimental results in the framework of Prospect Theory. Finally, we discuss the opinion that Dynamic Inconsistency and Disjunction Effect should be seen as evidence of irrationality in decision-making.

Decision; uncertainty; rationality; models