

# Departures from Preference Maximization and Violations of the Sure-Thing Principle

**Geoffroy de Clippel**

## Abstract.

This paper provides a warning: a property in the spirit of the sure-thing principle that may sound intuitive at first, and is indeed taken for granted in benchmark models, is most often violated when considering choices inconsistent with preference maximization. Beyond (individual and social) choice theory, this observation has implications for game theory and mechanism design. Some of the lessons include: dynamic consistency with respect to the resolution of uncertainty implies rationality over constant acts, totally-mixed beliefs cannot be overlooked when checking dominance in games, dominance in extensive-form games is not equivalent to dominance when choosing behind the veil of ignorance in their associated strategic forms, generalizations of serial dictatorship, and only those rules, are dominant-strategy implementable over the largest domain of all choice functions, and it becomes preferable to use dynamic mechanisms.