"The gain-loss asymmetry and single-self preferences"

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Abstract

Daniel Kahneman and Amos Tverky argued that decisions under uncertainty display a fundamental asymmetry between gains and losses: many people prefer a sure gain of $\$ pz$ to an uncertain gain of $\$ z$ with probability p, while preferring an uncertain loss of $\$ z$ with probability p to a certain loss of $\$ pz$: they labeled this phenomenon the *reflection effect*.

The present paper explores the extent to which the reflection effect, understood as occurring at a variety of wealth levels, violates (a) single-self preferences, or (b) the expected utility hypothesis. We find that (1) The reflection effect is compatible with single-self preferences, but not with single-self, expected utility preferences; (2) The reflection effect is compatible with multiple-selves, expected utility preferences.

But there are some forms of gain-loss asymmetry that are incompatible with single-self preferences. More precisely, we decompose a reflection effect into two component effects, namely a probability switch and a translation. Either component is incompatible with single-self, expected utility preferences, while compatible with multiple-selves, expected utility preferences. But the probability switch effect is compatible with single-self, non-expected utility preferences, whereas the translation effect violates single self preferences.

The paper extends the analysis to cover the roles of wealth and of the amount of money at stake in decisions under uncertainty, and their implications for preference theory.