

Preference Reversals: Time and Again

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Extendend Abstract:

The preference reversal phenomenon, originally discovered in psychology, challenges the very foundations of economics and has consequently received attention for decades. Preference reversals appear when a decision maker values a lottery above a second one but chooses the latter when given the choice. Although multiple theories have been postulated, to date there is no universally accepted explanation for this experimentally robust phenomenon.

We conducted two experiments on preference reversals using a novel design. The measurement of decision times allowed us to collect evidence on the decision processes underlying reversals, and certain variants of the procedure eliminated reversals almost completely. The results are compatible with preference reversals being caused by the interaction of several processes, one of them reflecting an impulsive overpricing of bets with large outcomes (\$-bets), which is inhibited in the actual choice phase. In particular, decision times in the choice phase are significantly longer when the choice forms part of a reversal. We varied pricing procedures and found that both the percentage of reversals and the decision times in the choice phase depend on the procedure. This is striking for decision times, since those refer to the choice phase, which is identical across treatments.

In our second experiment, we included treatments with ranking procedures (as opposed to rating through prices), and found that preference reversals virtually disappear and decision times become much shorter, which indicates that the process causing reversals crucially depends on the evaluation of lotteries through monetary prices.

Our design also allows us to distinguish reversals when the evaluation phase occurs before actual choice and when it occurs afterwards. We find systematic differences, with reversals being reduced in the latter case. This is compatible with psychological theories of choice-induced preference change.

Keywords: Preference Reversals, Decision Times, Decision Processes