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Modeling the subjective value of monetary outcomes under risk and delay: gains, losses, and choice-price reversals

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Abstract

There has been a recent surge of interest in how people assign subjective value to outcomes that are both risky and delayed, referred to as risky intertemporal gambles. In most studies, subjective value has been determined through preferences between binary choices, yet subjective value and preference can be determined by willingness-to-pay values or other prices assigned to each prospect. The present study aims to compare factors that influence the subjective value of risky intertemporal prospects between a choice task and a pricing task. Preferences during choice and pricing were assessed when outcomes were beneficial (gains) or harmful (losses). Cognitive models of each task quantify both common parameters that influence subjective value and specific parameters involved in each response process. Results suggest that differences extend beyond simple differences in elicitation procedure: during pricing, people paid greater attention to payoffs while exhibiting greater self-control and risk aversion compared to choice.