Direct Tests of Cumulative Prospect Theory

Cumulative Prospect Theory (CPT), the leading behavioral account of decision making under uncertainty, assumes that the probability weight applied to a given outcome depends on its ranking. This assumption is needed to avoid the violations of dominance implied by Prospect Theory (PT). We devise a simple test involving three-outcome lotteries, based on the implication that compensating adjustments to the payoffs in two states should depend on their rankings compared with payoffs in a third state. In an experiment, we are unable to find any support for the assumption of rank dependence. We separately elicit probability weighting functions for the same subjects through conventional techniques involving binary lotteries. These functions imply that changes in payoffs rank should change the compensating adjustments in our three-outcome lotteries by 20-40%, yet we can rule out any change larger than 7% at standard confidence levels. Additional tests nevertheless indicate that the dominance patterns predicted by PT do not arise. We reconcile these findings by positing a form of complexity aversion that generalizes the well-known certainty the well-known certainty effect.