Context, Mere Presentation and the Impact of Rare Events

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When making decisions from incomplete description people have to rely on their prior knowledge and if possible collect new data. Past research examining the impact of small-probability (rare) outcomes in such decisions has yielded conflicting results and conclusions. Some studies have reported evidence consistent with overweighting of rare outcomes, as predicted by a generalization of prospect theory. Other studies have reported evidence indicative of insufficient sensitivity to rare events. We present four studies that aim to reconcile these inconsistent results and conclusions. Our findings suggest that two basic effects codetermine the impact of rare outcomes: a context effect and a mere-presentation effect. Adding or subtracting these effects or changing the directions of their impact drastically alters the inferred effect of rare events. Moreover, by using both effects we were able to reverse two of the most prominent paradoxes in the history of decision research, the Allais paradox and the Saint Petersburg paradox.