

Hypothesis-driven

Consider lottery T which yields x_1 with p_1 and $-x_2$ with p_2

Utility / Decision theory	How to calculate	Transformation in	Number of parameters
Expected value/Risk Neutrality (RN)	$RN(T) = p_1 * x_1 - p_2 * x_2$	No transformation	0
Expected Utility Theory (EUT)	$EUT(T) = p_1 * u(x_1) - p_2 * u(x_2)$ Example: $u(x_i) = \frac{x_i^{1-r}}{1-r}$, where $i=\{1,2\}$	Payoffs	1 (risk aversion parameter r)
Cumulative Prospect Theory (CPT)	$CPT(T) = w_+(p_1) * u(x_1) - w_-(p_2)u(x_2)$ Example: $u(x) = \begin{cases} x^\alpha & \text{if } x \geq 0 \\ \lambda (-x)^\beta & \text{if } x < 0 \end{cases}$ $w_+[p] = \frac{p^\gamma}{(p^\gamma + (1-p)^\gamma)^{1/\gamma}}$ and $w_-[p] = \frac{p^\delta}{(p^\delta + (1-p)^\delta)^{1/\delta}}$	Probabilities	4 or 5 (alpha, beta, gamma, delta and lambda)