

Hastie and Dawes 2010, The sunk cost fallacy

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I. Decision Theory

Epistemic vs. practical rationality.

In addition to probabilities, add *options* (X, Y, Z, \dots) and an *ordering* \prec on them. How constrain ordering?

Asymmetry; transitivity. Etc.

Representation theorems: $\exists u$ such that $X \succ Y$ iff $\mathbb{E}_P(u(X)) > \mathbb{E}_P(u(Y))$.

'expected utility theory': must act like an expected-utility maximizer.

E.g. which bets to accept.

Is EUT too strong?

Risk aversion.

Independence of irrelevant alternatives.

Is EUT empty? No. Eg completeness.

II. The Sunk Cost Fallacy

Another(?) implication: EUT rules out sunk cost fallacy.

The sunk cost fallacy: You *honor sunk costs* when you "behave as if a nonrefundable expense is equivalent to a current investment".

Examples:

Ski trip: You've paid \$90 for ski tickets and driven to the mountain. But it turns out it's cold, icy, and you and your friend are both feeling miserable physically. You're inclined to think that at this point you'd prefer to just drive home and watch a movie rather than attempt to ski. But your friend points out that you've already paid for the tickets, and it'd be a shame to waste them. So you decide to ski.

War: "You've got to think logically and realistically. Too much money's been spent, too many troops are over here, too many people had too many hard times not to kick somebody's ass"

Public works: "Completing the Tennessee-Tombigbee is not a waste of taxpayers' dollars. Terminating the project at this late stage of development would, however, represent a serious waste of funds already invested."

Investment: "I have already invested so much in the Concorde airliner... that I cannot afford to scrap it now."

First day of the 1991 Gulf war.

Arguing for completion of artificial waterway that would, by current estimates, be worth less than the amount of money required to complete it.

What could the sunk cost fallacy be, such that (1) these are plausibly examples of it, and (2) it is plausibly irrational?