

Prospect theory

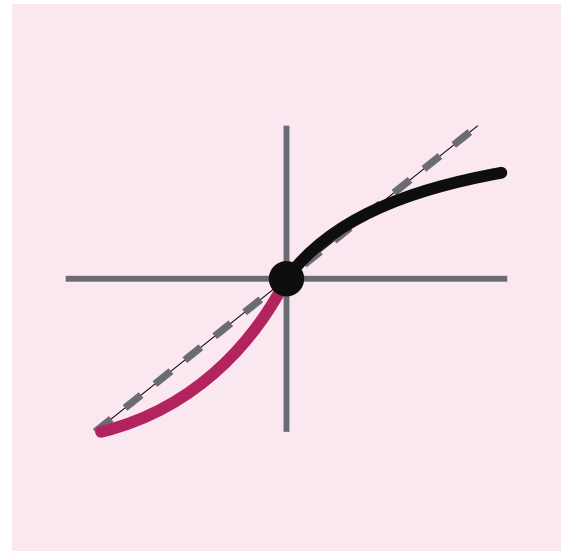
We decide by comparing with a reference point. Losses weigh more than gains, and we take risks differently to win than to avoid losing.

In Spanish

Teoría prospectiva

Origin

Kahneman and Tversky (1979)



What problem it addresses

It explains why people do not decide under risk as classical expected utility theory predicts. The same choice changes depending on whether it is presented as a gain or a loss.

An example

Kahneman and Tversky asked: a sure 3,000 or an 80% chance of winning 4,000? And the same, but losing.

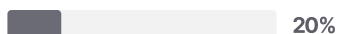
To win

Win 3,000 for sure



80%

80% chance to win 4,000



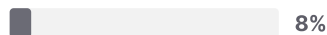
20%

Percentage choosing each option

80% preferred **the sure thing**.

To avoid losing

Lose 3,000 for sure



8%

80% chance to lose 4,000



92%

Percentage choosing each option

92% preferred **to take the risk**.

With gains we avoid risk; with losses we seek it. They called this the reflection effect.

Why it happens



We do not look at how much we will have, but at how much it changes from what we already have.



Losses weigh more than gains of the same size.



Each extra unit, gained or lost, affects us less, so faced with a sure loss we prefer to gamble.

Applications in design

✓ Use it like this

Explain changes starting from what the person already has: what they gain and what they stop losing.

✗ Avoid

Scaring people with exaggerated losses to force a decision.

👁 Don't fall for it

If an option seems urgent because of what you could lose, frame it as a gain and compare again.

94%

What the research says

That is the share of the original results replicated in a study with 4,098 people from 19 countries (Ruggeri et al., 2020).

● ● ● **Solid evidence.** Some effects came out weaker than in the 1979 study, but the pattern holds.

Connections

Used in

■

Behavioral design

Related to

■

Loss aversion

■

Framing effect

Authors and works

1979	Daniel Kahneman and Amos Tversky	Proposed the theory as an alternative to expected utility to describe decisions under risk.
1992	Amos Tversky and Daniel Kahneman	Published an extended version, cumulative prospect theory.

Sources

Original sources

- Kahneman, D., & Tversky, A. (1979). Prospect theory: An analysis of decision under risk. *Econometrica*, 47(2), 263–291. [View source \(https://doi.org/10.2307/1914185\)](https://doi.org/10.2307/1914185)
- Tversky, A., & Kahneman, D. (1992). Advances in prospect theory: Cumulative representation of uncertainty. *Journal of Risk and Uncertainty*, 5(4), 297–323. [View source \(https://doi.org/10.1007/BF00122574\)](https://doi.org/10.1007/BF00122574)

Academic reviews

- Ruggeri, K., Ali, S., Berge, M. L. et al. (2020). Replicating patterns of prospect theory for decision under risk. *Nature Human Behaviour*, 4(6), 622–633. [View source \(https://doi.org/10.1038/s41562-020-0886-x\)](https://doi.org/10.1038/s41562-020-0886-x)

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