

# Review Paper02

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## 1 Overview of the Paper

Prospect Theory is an alternative to the previous Expected Utility Theory, with some modifications that human decision-making is influenced by cognitive biases, reference points, and the perception of gains and losses.

What's more, this paper proposed another new concept – value function, which is made up of two different components, first one is a weighted function  $\pi(p)$ , and it is not equal to  $p$ , if  $\pi(p) = p$ , then it turns out to be the previous theory, which will cause some contradictions. and this weighted function has the following properties:

- $\pi(0) = 0, \pi(1) = 1$
- $\pi(p)$  is an increasing function in the domain of  $[0, 1]$
- For any  $p$ ,  $\pi(p) + \pi(1 - p) < 1$

And the second component is function  $v$ , and it is based on the current value, a.k.a reference point, and the changes. By introducing this function, the previous contradiction will disappear.

## 2 Questions

I have asked my personal questions to the professor during my presentations last Tuesday, I think it helps me a lot, thanks!