

Pseudocertainty effect

Pseudocertainty effect refers to people's tendency to make risk-averse choices if the expected outcome is positive, but make risk-seeking choices to avoid negative outcomes. Their choices can be affected by simply reframing the descriptions of the outcomes without changing the actual utility.

Expounding on theories of decision making Tversky and Kahneman (1981) described the effects of certainty and pseudocertainty. The certainty effect describes the tendency to select an option that eliminates risk completely rather than merely reducing the risk – even if the option result in the same outcome. Human decision makers tend to favour no-risk options if given a choice. This preference is so strong that the behaviour persists even if the certainty of outcome is only apparent rather than an authentic risk. This inclination has been named the pseudocertainty effect.

Example:

Scenario one

An epidemic breaks out that's likely to kill 600 people if left untreated. Treatment strategy A will save 200 people. Treatment strategy B has 1/3 chance of saving 600 people and 2/3 chance of saving nobody.

From 152 people questioned, 72% recommended strategy A and 28% recommended strategy B. Most respondents preferred the definite positive outcome of saving 200 people, over the conditional but larger positive outcome of saving 600 people.

Scenario two

Next, 155 people were given the same data in a different way. They were told: under treatment strategy A, 400 people will die. Under treatment strategy B, there is a 1/3 probability that nobody will die, and a 2/3 probability that 600 people will die. With this formulation, 78% of the 155 respondents chose strategy B. They were willing to accept the risk of a larger negative outcome (600 people dying) to have a chance of averting an otherwise definite negative outcome (400 people dying).

Conclusion

Scenarios one and two are exactly the same except worded in a different way, yet the respondents reach opposing conclusions for each scenario. Thus, the way a scenario is worded influences the decision of the respondent.

References:

- http://en.wikipedia.org/wiki/Pseudocertainty_effect
- Kahneman, Daniel and Tversky, Amos. The Framing of Decisions and the Psychology of Choice Science 211 (1981), pp. 4538
- Gregory A. DeBourgh. The Pseudocertainty Effect and Decision Making (1997).