Value estimation

Tom Rochette <tom.rochette@coreteks.org>

November 2, 2024 — 36c8eb68

0.1 Context

Estimating whether something will bring value to us is difficult. It is said that things of value are hard. But how hard should we work for them instead of something else?

There are so many reasons for things to go wrong and very few ways for things to go right. However, we strive to make things work at all time.

We want to be able to look at a list of potential scenarios and determine the scenario which is likely to give us the best return on investment.

0.2 Learned in this study

0.3 Things to explore

- The impact of probabilities on decision
- The impact of making a wrong estimation
- Consider the evaluation as a transition between states
  - In the case of a multiple parties decision, each party has its own state and each scenario can have different final state (value) for each individual. This in turn means that we are likely to want to maximize the amount of gain due to the decision that will be taken

0.4 Questions

- How can one evaluate the likelihood of something that have no experience with without biasing themselves by relying on their emotions?
- If you have X different scenarios, how can you determine the weight/probability of each scenario?
- We can create a graph where each branches of a decision indicates how possible each option is, such that one branch may have 100% (indicating it is currently the case or would cause 0 issue). How can we compute the value of certainty/uncertainty?
- If a decision involves multiple parties, is it still possible to view the individuals as a single agent?

0.5 Notes

- It might be easier to say things like "A is more likely than B" than saying "A is twice as likely than B", this still gives us an indication of which of the two options is more likely and allows us to progress when problems are too difficult to precisely evaluate

1 Overview

2 Criteria

- Required effort/time/investment

- Expected return/value
- Level/degree of certainty
- Rate of return (how soon we expect to observe returns on our investment)

3 General workflow

- List the potential options/scenarios
- Offer an initial estimate of the likelihood of each option (should add up to 100%)
- Offer an initial estimate of the value of each option
- List the factors that could impact the likelihood of each option, which will determine the confidence on the likelihood

4 See also

5 References