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Presentation on Similarity Relations and Decision-making Heuristics

Total time: 24 minutes

1. Briefly describe expected value and expected utility calculations and the meaning behind the figures they yield (~2 minutes)
   1. Expected value
   2. Expected utility
   3. Utility functions such as U(x) = sqrt(x)
2. Introduce Rubinstein’s paper (~5 minutes)
   1. Explain the variant of the Allais paradox used in the paper
   2. What is the Allais paradox?
   3. Explain the thought experiment outlined by Rubinstein
3. Describe similarity relations (~2 minutes)
   1. What is a similarity relation?
   2. Similarity, in this case, means, “*this* is approximately the same as *that*”
   3. Explain the procedure through which similarity relations are used to solve lotteries
4. Present the web application and the current algorithm (~2 minutes)
   1. Use of the (above) procedure
   2. Special cases (neither are similar, both are similar, etc.)
5. What assumptions are made by this web app? (~2 minutes)
   1. How is “similar” defined in the app?
   2. Why is this a problem?
   3. 0% v. 1% compared to 99% v. 100%
   4. If neither are clearly similar, which are more similar, the probabilities or the outcomes?
6. Expand upon the current algorithm (~2 minutes)
   1. A few issues:
      1. How can we assume less about the subject?
      2. How can we more accurately determine preference?
      3. What if there are more than two lotteries?
7. Add a “quiz” to the app, gauging preference? How would this work? (~2 minutes)
   1. Sliding scale representing similarity threshold
      1. Ranging from absolute similarity to absolute dissimilarity
8. Finally, discuss the possibility of using Rubinstein’s work to demonstrate the preference between three lotteries (~5 minutes)
   1. See excel
9. Concluding remarks: is this useful to economists? (Until the end…)