

Paper 1: Arguments for Probabilism

Technical Requirements

Please submit your paper on Canvas. For fairness, I will grade your papers without knowing your identity. To “blind” your paper, please submit a *.pdf file*. Your paper ought to be double-spaced in 12pt, Times New Roman font. Include only your student number at the top of your paper. *Do not include your name* or any other identifying information. As a rough guideline, most students need about 1,250 to 1,750 words to address the prompt below. Your paper should not exceed 2,000 words, however. Please include a complete bibliography with any other sources that you have consulted.

Topic

Probabilism is the thesis that a rational agent’s degrees of belief should be representable by a probability measure. Reconstruct *one* the following two arguments for probabilism: (1) the synchronic Dutch Book argument (Vineberg 2022) and (2) the argument using Anscombe and Aumann’s theorem that we discussed in class (Anscombe and Aumann 1963).

Then, raise the best objection that you can to the argument you have constructed, and respond on behalf of someone who finds your original argument convincing. There are many articles defending, criticizing, and refining Dutch Book arguments; there are fewer discussing Anscombe and Aumann’s result specifically but there are many articles discussing representation theorems generally (e.g., see Meacham and Weisberg 2011). Feel free to use whatever sources you wish, whether we discussed them in class or not. However, make sure to (i) rely only *peer-reviewed* journals or books (not arbitrary web pages) (ii) cite any sources you use.

No matter what, your paper should not simply be a summary of the articles we have read; your response must be novel in some way. Novelty often results from *expanding* upon arguments that we have read (e.g., by providing novel examples supporting various premises).

In lieu of discussing the Dutch Book Argument or Anscombe and Aumann’s argument, you may choose to reconstruct a different argument for probabilism if you meet me *at least 10 days before the due date* to discuss an outline of your paper. Again, you should restrict your focus to *one* such argument. If you are interested in learning about additional arguments for probabilism, I encourage you to consider the following sources:

- Joyce 1998, who develops an “accuracy-first” defense of probabilism. Joyce’s work laid the foundation for an entire research program, which is accessibly summarized in Pettigrew 2016.
- Christensen 1996’s “de-pragmatized” Dutch Book argument.
- Savage 1954. Like Anscombe and Aumann, Savage’s argument for probabilism employs a representation theorem. But Savage’s assumptions are importantly different.

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References

- [1] F. J. Anscombe and R. J. Aumann. “A definition of subjective probability”. In: *Annals of mathematical statistics* 34.1 (Mar. 1963), pp. 199–205.
- [2] D. Christensen. “Dutch-book arguments de pragmatized: Epistemic consistency for partial believers”. In: *The Journal of Philosophy* 93.9 (1996), pp. 450–479.
- [3] J. M. Joyce. “A nonpragmatic vindication of probabilism”. In: *Philosophy of Science* 65.4 (1998), pp. 575–603.
- [4] C. J. Meacham and J. Weisberg. “Representation theorems and the foundations of decision theory”. In: *Australasian journal of philosophy* 89.4 (2011), pp. 641–663.
- [5] R. Pettigrew. *Accuracy and the Laws of Credence*. en. Oxford University Press, 2016.
- [6] L. J. Savage. *The foundation of statistics*. New York, NY: Dover publications, 1954.

- [7] S. Vineberg. “Dutch Book Arguments”. In: *The Stanford Encyclopedia of Philosophy*. Ed. by E. N. Zalta and U. Nodelman. Fall 2022. Metaphysics Research Lab, Stanford University, 2022.