

The Hebrew University of Jerusalem

Syllabus

The Philosophical Foundations of Decision Theory - 15757

Last update 31-01-2022

HU Credits: 2

Degree/Cycle: 2nd degree (Master)

Responsible Department: Philosophy

<u>Academic year:</u> 0

Semester: 2nd Semester

Teaching Languages: Hebrew

<u>Campus:</u> Mt. Scopus

<u>Course/Module Coordinator:</u> Ittay Nissan-Rozen

<u>Coordinator Email: ittay.nissan@mail.huji.ac.il</u>

Coordinator Office Hours:

<u>Teaching Staff:</u> Dr. Ittay Nissan

Course/Module description:

We will get familiar with Savage's VNM's and Jeffrey's versions of normative decision theory and will discuss some foundational issues concerning all three versions.

<u>Course/Module aims:</u> A philosophical introduction to normative decision theory

Learning outcomes - On successful completion of this module, students should be able to:

to philosophize about decision theory

Attendance requirements(%):

100

Teaching arrangement and method of instruction: texts-based course

Course/Module Content:

1. Introduction - no presentation, no reading.

2. The orthodox theory – no presentation. Read:

https://plato.stanford.edu/entries/decision-theory/.

3. Jeffrey's theory – no presentation. Read:

https://www.jstor.org/stable/pdf/188653.pdf.

4. The Newcomb problem. Read: http://www.princeton.edu/~adame/papers/newcom b-university/newcomb-university.pdf, presenter reads also: https://www.cambridge. org/core/books/newcombs-

problem/introduction/A35BD0BD2900566FB6CB93A167D8748B.

5. Evidential vs. Casual Decision Theory. Read:

https://www.jstor.org/stable/pdf/41684358.pdf, Presenter reads also: https://onlineli brary.wiley.com/doi/full/10.1111/nous.12353?casa_token&eq;9YiL3HxHWf4AAAAA% 3A7GuQxhQnbzy_tmFMeI9xL47j7plyqq_F3IrMDP7ECwtsMT5tq06zYimUMcsmZgJF4oj s91a4Q3XEd08Vmw.

6. The Transitivity axiom. Read: https://www.jstor.org/stable/pdf/2234772.pdf?casa_ token&eq;X9zOTFfuQjMAAAAA:QMfup5MFztJbI_cRT0LI--RXS1iVAWRRGWE6_fVTKU_V BWBEy4ul22VvISh2whFRSruBjy3gavSgKy2YQjbKblegdsSTGuQhQzqaB0-DGEWK07nb V1XIIA, presenter reads also: https://philpapers.org/rec/BOVIP (The paper is not available in the link but I have the paper + a permission to send it to students). 7. The Completeness axiom -

https://web.mit.edu/~casparh/www/Papers/CJHareTaketheSugar.pdf, presenter reads also: http://rdoody.com/OpaqueSweeteningTransitivity.pdf.

somthinghttps://www.tandfonline.com/doi/full/10.1080/00048402.2018.1520269 8. The Sure-thing Principle and the Allias Paradox – read:

https://www.tandfonline.com/doi/full/10.1080/1350178X.2020.1857424, presenter reads also: https://www.cambridge.org/core/journals/economics-and-philosophy/arti cle/allais-paradox-what-it-became-what-it-really-was-what-it-now-suggests-tous/98F387A6C3FA59EDE82D75F430E43866.

9. Risk Weighted Expected Utility Theory – read:

https://philpapers.org/archive/BUCRAT.pdf, presenter reads also:

https://quod.lib.umich.edu/p/phimp/3521354.0019.016/1.

10. Criticism of REUT – read: https://johannathoma.files.wordpress.com/2018/06/riskaversion-and-the-long-run-ethics-final.pdf, presenter reads also https://www.cambri dge.org/core/journals/canadian-journal-of-philosophy/article/abs/costs-ofabandoning-the-surething-principle/CD28A76A004678E76E046F6D1FB98A2E. 11. Risk-attitudes in Jeffrey's framework – read:

https://www.journals.uchicago.edu/doi/full/10.1093/bjps/axx035, presenter reads also: https://link.springer.com/article/10.1007/s11098-022-01778-6?utm_source&eq; xmol&utm_medium&eq;affiliate&utm_content&eq;meta&utm_campaign&eq;DDCN_ 1_GL01_metadata.

12. Mentalism vs. Behaviorism about preferences, utilities and beliefs – read: https://research-information.bris.ac.uk/ws/portalfiles/portal/70387986/On_Interpretation_D ecision_TheoryECONPHILrevised.pdf. Presenter reads also:

https://journals.publishing.umich.edu/ergo/article/1131/galley/98/view/.

13. Criticisms of the role of representation theorems – read: https://jonathanweisber g.org/publication/2011%20Representation%20Theorems%20and%20the%20Founda tions%20of%20Decision%20Theory/, Presenter reads also:

http://www.pgrim.org/philosophersannual/34articles/easwarandecision.pdf.

14. Radical Interpretation and decision-theory – read:

https://www.jstor.org/stable/20114928?seq&eq;1#metadata_info_tab_contents, presenter also reads: https://link.springer.com/article/10.1007/s11229-021-03078-8.

Required Reading:

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b-university/newcomb-university.pdf, presenter reads also: https://www.cambridge. org/core/books/newcombs-

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6. The Transitivity axiom. Read: https://www.jstor.org/stable/pdf/2234772.pdf?casa_ token&eq;X9zOTFfuQjMAAAAA:QMfup5MFztJbl_cRT0LI--RXS1iVAWRRGWE6_fVTKU_V BWBEy4ul22VvISh2whFRSruBjy3gavSgKy2YQjbKblegdsSTGuQhQzqaB0-DGEWK07nb V1XIIA, presenter reads also: https://philpapers.org/rec/BOVIP (The paper is not available in the link but I have the paper + a permission to send it to students). 7. The Completeness axiom -

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11. Risk-attitudes in Jeffrey's framework – read:

https://www.journals.uchicago.edu/doi/full/10.1093/bjps/axx035, presenter reads also: https://link.springer.com/article/10.1007/s11098-022-01778-6?utm_source&eq; xmol&utm_medium&eq;affiliate&utm_content&eq;meta&utm_campaign&eq;DDCN_ 1_GL01_metadata.

12. Mentalism vs. Behaviorism about preferences, utilities and beliefs – read: https://research-information.bris.ac.uk/ws/portalfiles/portal/70387986/On_Interpretation_D ecision_TheoryECONPHILrevised.pdf. Presenter reads also:

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4. Michael D. Resnik, Choices: an introduction to decision theory, chapter 3 (first half).

5. Michael D. Resnik, Choices: an introduction to decision theory, chapter 3 (second half).

6. Michael D. Resnik, Choices: an introduction to decision theory, chapter 4 (first half).

7. Michael D. Resnik, Choices: an introduction to decision theory, chapter 4 (second half).

8. Meacham, G. C. and Weisberg, J. (2011), Representation theorems and the foundations of decision theory .

9. Richard, C. Jeffrey, The Logic of Decision, chapter 4.

10. Richard, C. Jeffrey, The Logic of Decision, chapter 5.

11. Richard, C. Jeffrey, The Logic of Decision, Appendix.

12. Andy Egan, Some counterexamples to causal decision theory

13. Huw Price, Causation, Chance, and the rational significance of supernatural evidence, (first half).

14. Huw Price, Causation, Chance, and the rational significance of supernatural evidence, (second half).

<u>Additional Reading Material:</u> on student's request

Course/Module evaluation:

End of year written/oral examination 0 % Presentation 40 % Participation in Tutorials 10 % Project work 50 % Assignments 0 % Reports 0 % Research project 0 % Quizzes 0 % Other 0 %

Additional information: N/A