



SH23 Belief and Inquiry

Lecturer/Course Convenor: Dr J. Chandler

Office Hours: Mondays & Wednesdays 10-11am @ Department of Philosophy, Room 307

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1. Overview

This module provides an accessible introduction to the formal study of rational belief. It covers essential background for the understanding of some of the more 'technical' work in contemporary epistemology and philosophy of science.

The bulk of the course will be devoted to an in-depth discussion of what is sometimes known as the 'graded' notion of belief, the idea that propositions can be believed, or disbelieved, to various degrees. In particular, we focus on the debate surrounding the rational constraints that such degrees of belief should obey. We review various well-known proposals and associated objections, including the popular view that rational degrees of belief should obey the formal constraints of the probability calculus.

We wrap the course up with another view of belief - the 'categorical' concept of belief - according to which our doxastic attitudes towards propositions fall into one of just three categories: belief, disbelief or suspension of judgment. Here we raise some normative issues concerning the kinds of rules that a rational categorical believer should obey and discuss the controversial relationship between the graded and categorical views of belief, focusing on the puzzles raised by the infamous Lottery paradox.

2. Aims & outcomes

This module provides an accessible albeit rigorous introduction to the formal study of rational belief.

By the end of this course, students should:

- feel comfortable with a number of useful formal concepts, including some basic set- and probability-theoretic notions.
- be familiar with the notion of graded belief and possess an understanding of the debates surrounding the kinds of constraints that rational graded beliefs should obey.
- have obtained an appreciation of some of the issues surrounding the relationship between graded and categorical notions of belief, including, in particular, the issues raised by the Lottery paradox.

3. Teaching methods

The course will consist of 19 x 1-hour lectures + 4 x 1-hour seminars.

4. Assessment

Assessment will involve a formal essay (details TBA) + examination (details TBA).

5. Time & location

Lectures will take place twice a week in Term 2: Tuesdays 3-4pm & Fridays 3-4pm.

Location: Caird room.

6. Schedule & reading (optional reading marked with *)

L1: *Admin, Overview & Propositions and Sets.*

- No reading

L2: *A Little More Set Theory.*

- Partee, B et al [1990]: *Mathematical Methods in Linguistics*. Dordrecht: Kluwer. Chs 1-2.

L3: *Probability Theory.*

- Weisberg, J. [unpublished]: 'A Probability Primer for Philosophers', excluding section 3 on conditional probability.

L4: *More Probability Theory.*

- Weisberg, J. [unpublished] 'A Probability Primer for Philosophers', section 3 'Conditional probability'.

L5: *Leftover Probability Theory.*

- Goosens, W. [1979]: 'Alternative Axiomatizations of Elementary Probability Theory'. *Notre Dame J. of Formal Logic* XX(1). *

L6: *Synchronic Dutch Book Arguments.*

- Resnick, M. [1987]: *Choices: an introduction to decision theory*. Minneapolis: University of Minnesota Press. Section 3-3c 'Subjective views' and section 3-3d 'Coherence & conditionalisation' §1&2 only.

L7: *Synchronic Dutch Book Arguments (ctd.).*

- Hajek, A. [forthcoming]: 'Dutch Book Arguments', in P. Anand, P. Pattanaik, and C. Puppe (eds.) *The Oxford Handbook of Corporate Social Responsibility*.
- Hajek, A. [2005]: 'Scotching Dutch Books?', *Philosophical Perspectives* 19, *Epistemology*. Pp 139-151. *

L8: *Synchronic Dutch Book Arguments (ctd.).*

- Christensen, D. [2004]: *Putting Logic in its Place*. Oxford: OUP. Pp 109-124.

L9: *Synchronic DBA's + Joyce's Accuracy-Based Argument.*

- Joyce, J. [1998]: 'A Nonpragmatic Vindication of Probabilism', *Philosophy of Science* 65(4): 575-603.
- Maher, P. [2002]: 'Joyce's Argument for Probabilism', *Philosophy of Science* 69: 73-81. *

L10: *Joyce's Accuracy-Based Argument (ctd.) + Indifference.*

- Gillies, D. [2000]: *Philosophical Theories of Probability*. London: Routledge. Pages 37-49.

L11: *Indifference (ctd.)*

- van Fraassen, B. [1989]: *Laws and Symmetry*. Oxford: OUP. Ch 12 'Indifference: The Symmetries of Probability'.

L12: *Indifference (ctd.) + Updating Belief*

- Weisberg, J. [ms] 'Varieties of Bayesianism' sections 3.3 - 3.5
- Howson, C. & P. Urbach [1993]: *Scientific Reasoning: the Bayesian approach, 2nd Edition*. LaSalle: Open Court. Chapter 6 'Updating Belief'. *

L13: *Updating Belief (ctd) + Confirmation*

- Earman, J. [1992]: *Bayes or Bust*. Camb. Mass.: MIT Press. Pp 63-65.
- Earman, J. & W. Salmon [1999] 'The Confirmation of Scientific Hypotheses', in M. Salmon et al. (eds.) *Introduction to the Philosophy of Science*, Indianapolis: Hackett Publishing Company. Sections 2.2 – 2.4. *
- Le Morvan, P. [1999]: 'The Converse Consequence Condition and Hempelian Qualitative Confirmation', *Philosophy of Science* 66: 448-454. *

L14: *Confirmation (ctd.)*

- Earman, J. [1992]: *Bayes or Bust*. Camb. Mass.: MIT Press. Pp 65-69.
- Fitelson, B. [2006]: 'The Paradox of Confirmation', *Blackwell Philosophy Compass* 1(1): 95-99.

L15: *Confirmation (ctd.)*

- Fitelson, B. [2000] *Studies in Bayesian Confirmation Theory*, PhD thesis, University of Wisconsin Madison. pp4-8. (the basics of Bayesian confirmation theory)

L16: *Confirmation (ctd.)*

- Fitelson, B. [2006]: 'The Paradox of Confirmation', *Blackwell Philosophy Compass* 1(1): 100-113.
- Fitelson, B & J. Hawthorne [2004]: 'Re-solving Irrelevant Conjunction with Probabilistic Independence', *Philosophy of Science* 71: 505-514. *

L17: *Confirmation (ctd.)*

- Chandler, J. [2007]: 'Solving the Tacking Problem with Contrast Classes', *British Journal for the Philosophy of Science* 58(3): 489-502.
- Fitelson, B. [forthcoming]: 'Likelihoodism, Bayesianism, and Relational Confirmation', forthcoming in *Synthese*. *

L18: The Lottery

- Christensen, D. [2004]: *Putting Logic in its Place*. Oxford: OUP. Ch2 'Two Models of Belief'.

L19: The Lottery

- Douven, I. & T. Williamson [2006]: 'Generalising the Lottery Paradox', *British Journal for the Philosophy of Science* 57(4): 755-779. *