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Research Areas

AOS: Decision Theory, Formal Epistemology
AOC: Logic, Ethics, Game Theory

Employment

University of Konstanz
Postdoctoral Researcher, October 2020 - present
Koselleck Project on the Foundations of Decision and Game Theory
Supervisor: Wolfgang Spohn

Education

University of California, Irvine
Ph.D., Philosophy, Summer 2020
M.A., Mathematical Behavioral Science, Summer 2019
Thesis: "The Logic of Planning"
Committee: Simon Huttegger (chair), Brian Skyrms, and Jeffrey Barrett

Pepperdine University
B.S., Mathematics, B.A., Philosophy, *cum laude*, April 2014

Publications

"A Plan-Based Causal Decision Theory", *Analysis* (forthcoming).

"Bradley Conditionals and Dynamic Choice" (with S. Huttegger), *Synthese* (2021).

"Dynamic Consistency in the Logic of Decision", *Philosophical Studies* (2020).

Book Reviews

Review of Richard Pettigrew's *Accuracy and the Laws of Credence* (with Chad Marxen), *Philosophy of Science* 85(2):316-320.

Presentations

"Stochastic Agency and Rational Deliberation"

- ELP, University of Konstanz, April 2021

"Planning and the Norms of Rational Choice"

- Philosophy Day, California State University, Long Beach, December 2019

"Newcombian Tragedy"

- Probability in Philosophy Conference, Australian Catholic University, November 2019

"Conditionals and Dynamic Choice"

- Luce 2019 Conference, University of California, Irvine, May 2019

"Evidence, Causality, and Sequential Choice"

- Foundations of Normative Decision Theory Workshop, Oxford University, June 2018
- Topics in Scientific Philosophy Conference in honor of Brian Skyrms, U.C. Irvine, February 2018 (Invited by Simon Huttegger)
- 46th Annual Meeting of the Society for Exact Philosophy, May 2018

Comments on Benjamin Arbour and Myron Penner's "Arguments from Evil and Evidence for Pro-theism"

- Pacific APA, San Francisco, March 2016 (Invited by Tomas Bogardus)

"Game Theory and the Problem of Social Evils"

- Pepperdine University, March 2015 (Invited by Tomas Bogardus)

Teaching Experience

Instructor, University of Konstanz, Germany

- *Formal Epistemology* (Winter 2021/2)
- *Introduction to Inductive Logic* (Summer 2021)

Instructor, University of California, Irvine

- *Introduction to Inductive Logic* (Spring 2020)
- *Introduction to Symbolic Logic* (Summer 2019)

Instructor, California State University, Long Beach

- *Rationality and Decisions* (Fall 2019)

Teaching Assistant, University of California, Irvine

- *Probability/Statistics* (Winter 2020/Spring 2018/Winter 2018/Spring 2017/Spring 2016)
- *Voting and Political Manipulation* (Winter 2019)
- *Naturalized Epistemology* (Fall 2018)
- *Philosophy of Biology* (Winter 2017/Winter 2015)
- *Behavioral Economics* (Fall 2016)
- *Business Decisions* (Fall 2015)
- *The Good Life: Happiness and Well-Being* (Spring 2015)

Honors

UCI Social Science Merit Fellowship, 2014-2020
UCI Associate Dean Fellowship, 2019

Professional Service

Organizer, U.C. Irvine Formal Epistemology Reading Group, 2016-2019
Journal Referee, *Philosophy of Science*
Member, Program Committee for Formal Epistemology Workshop (FEW) 2020

References

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Brian Skyrms
Distinguished Professor of Logic and Philosophy of Science
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Dissertation Abstract

The Logic of Planning

Over the past 40 years, decision theorists have produced an impressive body of literature employing dynamic choice arguments to defend the standard principles of Bayesian decision theory. However, examination of the import of these arguments has largely been restricted to the context of Savage-style decision theories that posit a sharp distinction between acts, states, and outcomes, while the more general framework developed in Richard Jeffrey's *Logic of Decision* has remained relatively neglected. My dissertation aims to remedy this situation by extracting and defending what I take to be the core insights of dynamic choice arguments and exploring their significance in the context of Jeffrey-style decision theories.

Despite their widely granted intuitive appeal, the merit of dynamic choice arguments remains a matter of controversy. Hence, my opening chapter sketches a philosophical defense of the dynamic consistency principle that I take to lie at the heart of standard dynamic choice arguments. This principle posits that a rational agents' own attitudes never preclude her from implementing *ex ante* optimal plans in contexts of sequential choice. Given this characterization of dynamic consistency, I also argue that certain risk-sensitive preferences are problematic in a way that incomplete preferences are not, thus contributing to a long standing debate on the interrelation of independence, completeness, and dynamic consistency.

With an informal defense of dynamic consistency laid out, the second chapter turns to the matter of formally modelling sequential choice within Jeffrey's decision theoretic framework. The first problem that confronts us here is that dynamic consistency concerns the evaluation of *plans*, while the Logic of Decision is a theory concerned with ranking *propositions* according to their desirability. Relying upon the standard practice of modelling sequential choice problems via Bayesian decision trees, I show how we can model plans in a Jeffrey-style framework by employing conditionals that I neutrally dub '*planning conditionals*'. I then argue that how we interpret planning conditionals has implications for the dynamic consistency of desirability maximizers. On certain interpretations of the planning conditional, but not others, desirability maximization gives rise to dynamic inconsistency.

When Newcomb problems arise, desirability maximization conflicts with causal decision theory. In such cases, the latter's prescriptions are superior to the former's. Unfortunately, Arif Ahmed has recently argued that causal decision theory is dynamically inconsistent. This generates a puzzle: the correct account of static choice generates diachronic tragedy. My third chapter proposes a resolution of this puzzle via a principle of *Autonomy*, which requires that rational agents take the (subjective) evidential import of their acts to coincide with their (perceived) causal import. Building on Ahmed's work, I produce a recipe for turning causalist violations of Autonomy into dynamic inconsistencies and prove a theorem showing that Autonomy is sufficient for the dynamic consistency of causalists. This result justifies an identification of causalist behavior with desirability maximization in the case of fully rational agents, yielding perhaps the most surprising result of taking dynamic consistency seriously in the context of Jeffrey-style decision theories.