

Phillip Hintikka Kieval

✉ pzhk2@cam.ac.uk
🌐 phkieval.com

Research

- AOS Philosophy of AI/Machine Learning · History & Philosophy of Science · Philosophy of Neuroscience · AI Ethics
- AOC American Pragmatism · Feminist Philosophy · Social & Political Philosophy · Philosophy of Statistical Learning Theory

Education

- 2021– **Phd in History and Philosophy of Science**, *University of Cambridge*
Supervisor: Marta Halina Advisor: Hasok Chang
- 2019–2021 **MA in Philosophy**, *University of Houston*
- 2015–2019 **BA in Philosophy**, *University of Houston*
Magna Cum Laude with University Honors and Honors in Major.

Publications

- forthcoming **Kieval, P. H.** “Representation Learning without Representationalism: A Non-Representational Account of Deep Learning Models in Scientific Practice,” in *Philosophy of Science for Machine Learning: Core Ideas and New Perspectives*, eds., Durán, J. M. & Pozzi, G. Synthese Library.
- forthcoming **Kieval, P. H.** “Artificial Achievements,” *Analysis*.
- 2022 **Kieval, P. H.** “Permission to believe is not permission to believe at will,” *Synthese*, 200(347): 1-12.
- 2022 **Kieval, P. H.** “Mapping representational mechanisms with deep neural networks,” *Synthese*, 200(196): 1-25.

Experience

- 2022– **Student Fellow**, *Leverhulme Centre for the Future of Intelligence*, University of Cambridge

Awards & Fellowships

- 2022 **Best Student Paper Award**, Issues in XAI4, *TU Delft*, Delft, Netherlands.
- 2021– **Gates Cambridge Scholarship**, *University of Cambridge*, (Full-cost scholarship awarded to outstanding applicants from countries outside the UK to pursue a postgraduate degree in any subject available at the University of Cambridge).

2019-2021 **Graduate Teaching Assistantship**, Department of Philosophy, *University of Houston*.

2018-2019 **Mellon Research Scholars Fellowship**, Andrew W. Mellon Foundation.

Presentations

Refereed

1. 6 May 2023, "Varieties of Representational Risk in Medical AI," PhilInBioMed 4, *University of Cambridge*.
2. 13 November 2022 "Automated Exploration, Understanding, and Semantic Opacity," Philosophy of Science Association 2022, Pittsburgh, PA
3. 19 October 2022 "Biased-by-design: why algorithms are necessarily value-laden" Graduate Student Workshop on Philosophy of Machine Learning Max Planck Institute for Intelligent Systems, *University of Tübingen*.
4. 11 September 2022 "Getting Real about Neural Data Science" Philosophy of Cognitive Neuroscience: Content, Self, and Cognitive Ontology 37th Annual Boulder Conference on the History and Philosophy of Science University of Colorado Boulder
5. 3 June 2022 "Biased-by-design: why algorithms are necessarily value-laden" Ethical Issues in AI and Computing Conference Embedded EthiCS @ Harvard in partnership with Social & Ethical Responsibilities of Computing at MIT, Harvard University
6. 25 May 2022 "Unsupervised Discoveries, Understanding, and Semantic Opacity," Issues in XAI #4 - Explanatory AI: Between ethics and epistemology TU Delft
7. 13 May 2022 "Unsupervised Discoveries, Understanding, and Semantic Opacity," Rotman Graduate Student Conference 2022: Models and Idealization Rotman Institute of Philosophy
8. 23 April 2022 "Unsupervised Discoveries, Understanding, and Semantic Opacity," 4th Annual Scientific Understanding and Representation (SURE) Workshop, Fordham University
9. 16 December 2021 "Unsupervised Discoveries, Understanding, and Semantic Opacity," Philosophy in Informatics VI
10. 2 October 2021 "Artificial Achievements," Rice-UH Graduate Conference, Rice University

Invited

1. 13 May 2023, "Towards Trustworthy Machine Learning: Reliability and the Value of Uncertainty," Gates Day of Research 2023, *University of Cambridge*.

2. 22 June 2022, "Getting Real about Neural Data Science," LCFI Kinds of Intelligence Work in Progress Retreat, *University of Cambridge*.
3. 7 May 2022 "Biased-by-design: why algorithms are necessarily value-laden," Gates Day of Research 2022, *University of Cambridge*.
4. 2 February 2022 "Unsupervised Discoveries and Semantic Opacity in Data-driven Neuroscience," Poldrack Lab, *Stanford University*.

Teaching

University of Cambridge

- Spring 2023 **Supervisor**, Introduction to History and Philosophy of Science
 Winter 2023 **Supervisor**, Introduction to History and Philosophy of Science
 Fall 2022 **Supervisor**, Introduction to History and Philosophy of Science
 Winter 2022 **Supervisor**, Ethics and Politics of Technology

University of Houston

- Spring 2021 **Teaching Assistant**, Logic I
 Fall 2020 **Teaching Assistant**, Introduction to Philosophy
 Summer 2020 **Grading Assistant**, Introduction to Philosophy
 Summer 2020 **Grading Assistant**, Philosophy and the Arts
 Spring 2020 **Teaching Assistant**, Logic I
 Fall 2019 **Teaching Assistant**, Logic I

Professional Activities

Diversity and Inclusion

- 2022 **Committee Member**, Wellness, Inclusion, Diversity, and Equity (WIDE) Committee, Leverhulme Centre for the Future of Intelligence, *University of Cambridge*.
- 2021-2022 **Organizing Committee**, Minorities and Philosophy (MAP), Department of History and Philosophy of Science, *University of Cambridge*.
- April 2021 **Co-Organizer**, BIPOC Philosophical Film Series with UH Minorities and Philosophy (MAP) (Funding secured from the Media and the Moving Image Initiative (MMI)), *University of Houston*.
- 2020 **Co-Founder**, University of Houston Chapter of Minorities and Philosophy (MAP)
- March 2018 **Participant**, COMPASS: Undergraduate Philosophy Workshop, University of Texas at Austin Chapter of Minorities and Philosophy (MAP)
- October 2017 **Participant**, Preventing Genocide: Global and Local Workshop and Teach-in, Hobby School of Public Affairs' Civitas Program and UH Human Rights Series, *University of Houston*.
- April 2017 **Participant**, Displaced Populations: Statelessness and Refugee Crises, UH Human Rights Series, *University of Houston*.

Service and Mentorship

- 2023-2024 **Co-Organizer**, 6th Annual Scientific Understanding and Representation (SURE) Workshop, *LSE & University of Cambridge*.
- 2023 **Co-Organizer**, Lingnan-Cambridge Workshop on AI in Science, *University of Cambridge*.
- 2022-present **Co-Organizer**, Jobseekers' Coffee, Department of History and Philosophy of Science, *University of Cambridge*
- 2022-present **Organizer**, HPS Workshop, Department of History and Philosophy of Science, *University of Cambridge*.
- 2021-2022 **Co-Director**, Learning for Purpose Programme, Gates Cambridge Scholars Council, *University of Cambridge*
- 2018-2019 **LAUNCH Tutor for Logic I and Logic II**, Undergraduate Student Success Center, *University of Houston*.
- 2018-2019 **LAUNCH Tutor for Writing and Rhetoric**, Undergraduate Student Success Center at the University of Houston

Refereeing

- *Philosophy of Science*
- *Cognitive Systems Research*

Languages

- | | |
|---------|-------------------------|
| English | Native Speaker |
| Spanish | B2 (Upper Intermediate) |
| Python | Intermediate |