Phillip Hintikka Kieval (he/him/his)

Department of History and Philosophy of Science
University of Cambridge
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Specialization

Philosophy of Science · Philosophy of Machine Learning · Philosophy of Neuroscience · AI Ethics

Comptetence

American Pragmatism · Feminist Philosophy · Political Philosophy · Logic

Education

University of Cambridge

PhD in History and Philosophy of Science   2021-present
   Supervisor: Marta Halina   **Advisor:** Hasok Chang

University of Houston

MA in Philosophy   2019-2021
BA in Philosophy   2015-2019
   Magna Cum Laude with University Honors and Honors in Major

Work Experience

Student Fellow   2022-present
Leverhulme Center for the Future of Intelligence, University of Cambridge

Awards & Fellowships

Best Student Paper Award, Issues in XAI4, TU Delft, Delft, Netherlands   2022
Gates Cambridge Scholarship, Gates Trust / Link   2021-present
Graduate Teaching Assistantship, Department of Philosophy, University of Houston   2019-2021
Mellon Research Scholars Fellowship, Andrew W. Mellon Foundation / Link   2018-2019

Publications

4. Kieval, P. H. (forthcoming). 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, Springer Nature.

3. Kieval, P. H. (forthcoming). Artificial Achievements. *Analysis*.

2. Kieval, P. H. (2022b). Permission to believe is not permision to believe at will. *Synthese*, 200(347): 1-12

1. Kieval, P. H. (2022a). Mapping representational mechanisms with deep neural networks. *Synthese*, 200(196): 1-25

Talks & Presentations

Refereed

9. "Automated Exploration, Understanding, and Semantic Opacity,"   13 November 2022
   Philosophy of Science Association 2022
   Pittsburgh, PA

8. "Biased-by-design: why algorithms are necessarily value-laden"   19 October 2022
   Graduate Student Workshop on Philosophy of Machine Learning
   Max Planck Institute for Intelligent Systems in Tübingen

7. "Getting Real about Neural Data Science"   11 September 2022
   Philosophy of Cognitive Neuroscience: Content, Self, and Cognitive Ontology
   37th Annual Boulder Conference on the History and Philosophy of Science
   University of Colorado Boulder

6. "Biased-by-design: why algorithms are necessarily value-laden"   3 June 2022
   Ethical Issues in AI and Computing Conference Embedded EthiCS @ Harvard
   in partnership with Social & Ethical Responsibilities of Computing at MIT,
   Harvard University

5. "Unsupervised Discoveries, Understanding, and Semantic Opacity,"   25 May 2022
   Issues in XAI #4 - Explanatory AI: Between ethics and epistemology
   TU Delft

4. "Unsupervised Discoveries, Understanding, and Semantic Opacity,"   13 May 2022
   Rotman Graduate Student Conference 2022: Models and Idealization
   Rotman Institute of Philosophy

3. "Unsupervised Discoveries, Understanding, and Semantic Opacity,"   23 April 2022
   4th Annual Scientific Understanding and Representation (SURe) Workshop,
   Fordham University

2. "Unsupervised Discoveries, Understanding, and Semantic Opacity,"   16 December 2021
   Philosophy in Informatics VI

1. "Artificial Achievements,"   2 October 2021
   Rice-UH Graduate Conference, Rice University

3. "Getting Real about Neural Data Science"   22 June 2022
   LCFI Kinds of Intelligence Work in Progress Retreat
   Department of History and Philosophy of science, University of Cambridge

2. "Biased-by-design: why algorithms are necessarily value-laden"   7 May 2022
   Gates Day of Research, University of Cambridge

1. "Unsupervised Discoveries and Semantic Opacity in Data-driven Neuroscience,"   2 February 2022
   Poldrack Lab, Stanford University

Teaching

UNIVERSITY OF CAMBRIDGE

SUPERVISOR

NST HPS Part IB *Philosophy of Science*   2022-2023
HPS PART II, PAPER 6 *Ethics and Politics of Technology*   Lent 2022

UNIVERSITY OF HOUSTON

TEACHING ASSISTANT

PHIL1321 *Logic I*   Spring 2021
PHIL1301 *Introduction to Philosophy*   Fall 2020
PHIL1321 *Logic I*   Spring 2020
PHIL1321 *Logic I*   Fall 2019

GRADING ASSISTANT

PHIL1301 *Introduction to Philosophy*   Summer 2020
PHIL1361 *Philosophy and the Arts*   Summer 2020

Professional Activities

DIVERSITY AND INCLUSION

Wellness, Inclusion, Diversity, and Equity (WIDE) Committee Member,   2022-present
   Leverhulme Center for the Future of Intelligence, University of Cambridge

Organizing Committee, Cambridge University Minorities and Philosophy (MAP)   2021-present

                                                                           April 2021

BIPOC Philosophical Film Series with UH Minorities and Philosophy (MAP)
     funded by The Media and the Moving Image Initiative (MMI)

Co-Founder, University of Houston Chapter of Minorities and Philosophy (MAP)   2020

COMPASS: Undergraduate Philosophy Workshop,   March 2018
     University of Texas at Austin Chapter of Minorities and Philosophy (MAP)

Preventing Genocide: Global and Local Workshop and Teach-in (*invited*),   October 2017
     Hobby School of Public Affairs' Civitas Program and UH Human Rights Series,
     The Honors College at the University of Houston

Displaced Populations: Statelessness and Refugee Crises, UH Human Rights Series,   April 2017
     The Honors College at the University of Houston

Service and Mentorship

Co-organizer, HPS Workshop, Department of History and Philosophy of Science,   2022-present
     University of Cambridge

Learning for Purpose Co-director, Gates Cambridge Scholars Council   2021-2022

LAUNCH Tutor for Logic I and Logic II,   2018-2019
     Undergraduate Student Success Center at the University of Houston

LAUNCH Tutor for Writing and Rhetoric,   2018-2019
     Undergraduate Student Success Center at the University of Houston

Refereeing

Philosophy of Science
Cognitive Systems Research

Graduate Coursework

University of Houston

Logic and Ontology, *James Garson*	Spring 2021
Luck and Achievment, *Christy Mag Uidhir*	Spring 2021
The Problem of Evil, *Luis Oliveira*	Spring 2021
Philosophy of Science*, *Josh Weisberg*	Spring 2021
The Meta-problem of Consciousness, *Josh Weisberg*	Fall 2020
The Methods of Ethics, *David Phillips*	Fall 2020
Deep Learning, *Cameron Buckner*	Spring 2020
Temporal Asymmetries, *Yael Lowenstein*	Spring 2020
Inference and Reference, *James Garson*	Fall 2019

Doxastic Agency, *Luis Oliveira* Fall 2019
Philosophy of Film, *Christy Mag Uidhir* Fall 2019

Rice University (Visiting Student)

Origins of Mind, *Alex Morgan* Fall 2020
Personal Relationship Goods, *Elizabeth Brake* Speing 2020

* = Course audited

References

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Hans Rausing Professor
Department of History and Philosophy of Science
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