# **KOBI FINESTONE**

# **Curriculum Vitae**

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## **Education**

2022 Ph.D. Candidate, Philosophy, Duke University

Graduate Certificates: College Teaching

2019 M.A., Economics, Duke University

2014 M.A., Philosophy, University College London

2013 B.Sc. Philosophy of Science, London School of Economics

**Areas of Specialization** Philosophy of Science, Philosophy of Economics, Business

Ethics, and Philosophy Politics and Economics

**Areas of Competency** Social and Political Philosophy, Epistemology, and

Philosophy of Biology

**Dissertation** Making Models Work

Committee Kevin D. Hoover (Chair), Alex Rosenberg, Robert

Brandon, Jennifer Jhun

The prevalent use of models in scientific research programs has spurred a rise in methodological research into the nature of scientific modeling in recent years. However, despite the focus from both philosophers and scientists, there remains a relatively widespread perception amongst those interested in methodology that something is awry. This is perhaps best summarized by the well-known aphorism that 'all models are wrong but some are useful'. Given the reasonable precept that truth is a guide to efficacy, it does seem mysterious how a false model could ever be useful. My dissertation attempts to resolve this mystery by explicating how even seemingly false or idealized models can be made true though the judicious use of statistical methods such as those deployed in modern economics. This is the constructive element of scientific modeling which, I argue, has been largely overlooked in the recent philosophical scholarship.

### **Academic Articles**

Finestone, K. (2022) "Darwinian Rational Expectations". *Journal of Economic Methodology*, 1-11. doi:10.1080/1350178X.2022.2035796

Finestone, K., & Kingston, E. (2021). "Crisis Prices: The Ethics of Market Controls during a Global Pandemic". *Business Ethics Quarterly*, 1-29. doi:10.1017/beq.2021.15

# **Fellowships and Grants**

Duke Competitive Summer Research Fellowship (\$5,500)
 Duke Competitive Summer Research Fellowship (\$5,500)

2018-2019 Duke Support for Interdisciplinary Graduate Networks (D-SIGN):

Social Science Methods Network (\$6,000)

2018 Duke Competitive Summer Research Fellowship (\$5,500)

## **Peer Reviewed Talks**

September 2021 International Network for Economic Methodology (Arizona State

University). "The Propensity Interpretation of Rational Expectations."

September 2019 Soul of Economics Conference (University of Zurich). "Situated Expertise

and Democratic Governance."

August 2019 International Network for Economic Methodology (University of

Helsinki). "The Incompatibility of Rational Expectations and Knightian

Uncertainty: A Limit of Economic Knowledge."

August 2017 International Network for Economic Methodology (San Sebastian). "Mind

the Inference Gap: The Necessity of a Dynamic Solution."

## **Invited Talks**

May 2019 The Consortium for the History and Philosophy of Biology (Université de

Paris). "Replaying the Ticker Tape: Contingency and the Efficient Market

Hypothesis."

### **Invited Comments**

May 2017 The Consortium for the History and Philosophy of Biology (Université de

Montreal). Comments on Marga Vicedo's "The 'Disadapted' Animal:

Niko Tinbergen on Human Nature."

# Workshops

July 2021 Politics, Philosophy, and Economics Graduate Summer Workshop

(Chapman University)

# **Teaching Experience at Duke University**

#### **Instructor of Record**

Summer 2021 Introduction to Logic Fall 2020 Introduction to Logic

Fall 2020 Problems in Philosophy of Science

Summer 2020	Introduction to Logic
Spring 2020	Introduction to Logic
Fall 2019	Introduction to Philosophy

Summer 2109 Business Ethics
Spring 2018 Introduction to Logic
Fall 2018 Introduction to Philosophy

## **Teaching Assistant**

Spring 2019	Philosophy of Economics	[Alex Rosenberg]
Spring 2018	Introduction to Philosophy	[Alex Rosenberg]
Fall 2017	Philosophy of Economics	[Alex Rosenberg]
Spring 2017	Philosophy of Riology	[Robert Brandon and Dan

Spring 2017 Philosophy of Biology [Robert Brandon and Daniel McShea]

Fall 2016 Symbolic Logic [Robert Brandon]

## **Other Experience**

Spring 2022 Thomson Writing Studio Consultant Fall 2021 Thomson Writing Studio Consultant

### **Graduate Coursework**

# Philosophy of Science

Metaphysics of Science [Fenton-Glynn], Philosophy of Biology [Brandon], Causation [Hoover], Historical and Philosophical Perspectives on Science [Janiak]

#### **Epistemology**

Epistemology of Disagreement [van Wietmarschen]

#### Philosophy of Mind

Philosophy of Mind [O'Brien]

#### **Formal Methods**

Symbolic Logic [Pavese]

## Metaphysics

Metaphysics [Kalderon], Experience [Kalderon], Conditionals [Pavese], Metaphysics [Van Inwagen]

#### Value Theory

Proseminar in Value Theory [Buchanan and Hawkins], Race Theory [Brandon], Advanced Studies in Philosophy, Politics, and Economics [Bovens], Social Choice Theory [Adler]

### **History of Philosophy**

Aristotle [Ferejohn], Modern Political Theory [Beattie]

### **Economics**

Microeconomics [Yildrim], Introduction to Econometrics [Hotz], Macroeconomic Theory [Peretto], Applied Econometrics [Xu], International Trade [Tower], Economic Growth [Peretto], Time Series Econometrics [Quaedvlieg], International Monetary Economics [Kimbrough]

## **Departmental and Professional Services**

2020-2022 President – Duke Philosophy Graduate Student Association
2018-2019 Department Representative – Duke Philosophy Graduate Student Association
2018-2019 President – Social Science Methods Network

## References

Kevin D. Hoover, Professor of Economics and Professor of Philosophy

**Duke University** 

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Alex Rosenberg, R. Taylor Cole Distinguished Professor of Philosophy

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Jennifer Jhun, Assistant Professor of Philosophy

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#### **Dissertation Abstract**

Scientific models stand at the center of a number of research programs. Such models facilitate explanations, predictions, and measurements and often serve as the foundation for more extensive theoretical and empirical research. However, despite their apparent efficacy, models seem to pose an inherent methodological puzzle which is well summarized by the well-known aphorism that 'all models are wrong but some are useful'. That models are useful is in little doubt, though of course there are instances in which particular models may be misapplied. But as a general methodology, modeling has proven to be widely effective across a wide range of scientific contexts. Therefore, there does seem to be a genuine methodological puzzle, but only if one accepts the general precept that all models are in fact wrong.

In my dissertation, I reject the claim that all models are wrong. On a surface level this is due to the fact that models cannot technically be false as they are objects rather than propositions. However, more substantively, my argument revolves around the fact that even idealized models can be made true through the judicious use of statistical techniques. The old aphorism ought to be reformulated to 'not all models are false and some can be made useful'.

In greater detail, my dissertation is composed of three substantive chapters and an introductory chapter. The introductory chapter, which is entitled *Modeling as Activity*, details my broad methodological framework, and situates me within the philosophical and scientific literature.

In the first substantive chapter, entitled *Decompositional Models*, I argue that scientific models can always be decomposed into their constituent parts and properties. This entails that it is possible to assess the efficacy of particular model components in a piecemeal fashion. And while this thesis may not sound overly controversial, it has recently been challenged in the philosophical literature by Collin Rice (2019). In defending the decomposability of models, my argument involves two distinct branches. The first emphasizes the importance of pragmatics in modeling which is unaccounted for on Rice's account. The second proposes an account of representation which is only possible given model decomposition. Given this dependency, I argue there is good reason to believe in model decomposition.

In the second substantive chapter, entitled *Idealized Models are Ideal*, I argue that idealizations are necessary for successful representation and that models which exemplify idealizations constitute the true representational and modeling ideal. This entails a rejection of the standard philosophical modeling ideal of completeness which holds that the ideal model is maximally complex and maximally precise. My argument once again involves two main branches. In the first, I demonstrate how the ideal of completeness is conceptually unsound. In the second branch I demonstrate how the complete representation is fundamentally undesirable given the standard epistemic tasks associated with modeling.

In the third and final substantive chapter, entitled *Making Models Work*, I articulate the constructive process by which theoretical idealized models can be made to cohere with concrete target systems through the judicious use of statistical techniques. Drawing on theoretical and empirical research in economics, I detail precisely how idealizations can be *transformed* and *tailored* to fit actual target systems. Moreover, I argue that this constructive process differs in important respects from the philosophical de-idealization literature and points towards a new approach to understanding empirical modeling.