# NAFTALI WEINBERGER

Curriculum Vitae

Munich Center for Mathematical Philosophy Ludwig Maximilian University of Munich Ludwigstraße 31; 80539 Munich +49 15770968927 naftali.weinberger@gmail.com

# AOS

Philosophy of Science, Philosophy of Biology, Philosophy of Cognitive Science

# AOC

Philosophy of the Social Sciences, Normative ethics, Kant, Logic, Formal Epistemology

# **ACADEMIC APPOINTMENTS**

Sept. 2021-	<b>Munich Center for Mathematical Philosophy</b> Postdoctoral Fellow (Deutsche Forschungsgemeinschaft)
Sept. 2019-	<b>Munich Center for Mathematical Philosophy</b>
Sept. 2021	<i>Humboldt Research Fellow</i>
Sept. 2018-	<b>The Center for Philosophy of Science, University of Pittsburgh</b>
May 2019	<i>Postdoctoral Fellow</i>
June 2015-	<b>Tilburg Center for Logic, Ethics and Philosophy of Science (TiLPS)</b>
July 2018	<i>Postdoctoral Fellow</i>

# **EDUCATION**

Ph.D. 2015 Philosophy University of Wisconsin, Madison Dissertation: *Causal Inference Across Populations* Committee: Daniel M. Hausman (chair), Malcolm Forster, Elliott Sober, Felix Elwert (sociology), Peter Steiner (educational psychology)

M.A.	2012	Philosophy	University of Wisconsin, Madison
B.A.	2008	Philosophy	Columbia University, New York

# PUBLICATIONS

Weinberger, N. and Allen, C. (Forthcoming) "Static-Dynamic Hybridity in Dynamical Models of Cognition"

Philosophy of Science (Accepted February 9, 2021)

Weinberger, N. (Forthcoming) "Comparing Pearl and Rubin's Causal Modeling Frameworks: A Commentary on Markus (2021)"

Economics and Philosophy (Accepted October 29, 2021)

Weinberger, N. (2021) "Intervening and Letting Go: On the Adequacy of Equilibrium Causal Models"

*Erkenntnis* https://doi.org/10.1007/s10670-021-00463-0

Weinberger, N. (2020) "Near-Decomposability and the Time-Scale Relativity of Causal Representations"

Philosophy of Science, 87 pp. 841-856.

- Weinberger, N. and Bradley, S. (2020) "Making Sense of Non-Factual Disagreement in Science" Studies in History and Philosophy of Science Part A, vol. 83 pp. 36-43 Doi: <u>https://doi.org/10.1016/j.shpsa.2020.01.004</u>
- Weinberger, N. (2019) "Path-Specific Effects" The British Journal for the Philosophy of Science, Volume 70, No 1, 53–76
- Weinberger, N. (2019) "Mechanisms Without Mechanistic Explanation" *Synthese*, 196(6), 2323-2340.

Colombo, M. and Weinberger, N. (2018) "Discovering Brain Mechanisms Using Network Analysis and Causal Modeling" *Minds and Machines*, 28(2), 265-286

Weinberger, N. (2018) "Faithfulness, Coordination, and Causal Coincidences" *Erkenntnis* 83 (2): 113-133.

Forster, M., Raskutti, G., Stern, R., and Weinberger, N. (2018) "The Frugal Inference of Causal Relations"

The British Journal for the Philosophy of Science 69 (3): 821-848.

Weinberger, N. (2015) "If Intelligence is a Cause, It is a Within-Subjects Cause" *Theory and Psychology 25* (3): 346-361

Hausman, D., Stern, R, and Weinberger, N. (2013) "Systems without a Graphical Causal Representation" Synthese 191 (8): 1925-1930

Barrett, M., Clatterbuck, H., Goldsby, M., Helgeson, C., McLoone, B., Pearce, T., Sober, E., Stern, R., and Weinberger, N. (2012) "Puzzles for ZFEL, McShea and Brandon's Zero Force Evolutionary Law"

Biology & Philosophy 27 (5): 723-735

Weinberger, N. (2011) "Is there an Empirical Disagreement between Genic and Genotypic Selection Models?: A Response to Brandon and Nijhout" *Philosophy of Science*, 78 (2): 225-237

# **BOOK CHAPTERS**

"Reintroducing Dynamics into Static Causal Models" (2019) *Time and Causality Across the Sciences* (Cambridge University Press)

# **ENCYCLOPEDIA ENTRIES**

"Simpson's Paradox" (with Jan Sprenger) Stanford Encyclopedia of Philosophy (2021) https://plato.stanford.edu/entries/paradox-simpson/

# **BOOK REVIEWS**

*"Evidence-Based Policy: A Practical Guide to Doing it Better,* by Nancy Cartwright and Jeremy Hardie"

*Economics and Philosophy* 30 (1):113-120 (2014)

# WORKS IN PROGRESS

"The Worldly Underpinnings of Causal Inference" (with Porter Williams and Jim Woodward)

"Using Mediation Methods to Test Discrimination" (with Julian Schüssler)

"Simpson's Paradox and Evidence for Police Discrimination"

### **PROFESSIONAL PRESENTATIONS**

(\*Denotes invited)

"Taking Causal Models Metaphysically Seriously" European Philosophy of Science Association Meeting. Turin, Italy.	September 2021
"On the Use of Mediation Models for Measuring Discrimination" CEPDISC '21: Conference on Discrimination, Aarhus, Denmark.	August 2021
"Simpson's Paradox and Tests of Racial Discrimination"* 2021 Canadian Mathematical Society Summer Meeting (Zoom)	June 2021
"Modelling Racial Discrimination Using Causal Mediation Techniques" Causality in the Social Sciences II, Hannover, Germany (Zoom)	October 2020

"Introduction to Causal Modeling"* Summer School in Bayesian Epistemology	August 2020	
"Causality, Differential Equations, and Equilibrium Abstractions"* Workshop Information Theory and Causation, Santa Fe Institute	[Postponed - Covid]	
"Economic Modeling in an Unsteady World" The Soul of Economics, University of Zurich	September 2019	
"Causation, Time, and Near-Decomposability"* Workshop on Causation and Time, University of Illinois	January 2019	
"Localization and Complex Temporal Dynamics" 26 <sup>th</sup> Biennial Meeting of the Philosophy of Science Association	November 2018	
"How to Not Be Misled While Multi-Level Modeling" Models of Explanation, Turin	June 2018	
"Explaining How" Workshop on Explanation and Understanding, Ghent	May 2018	
"Causation, Time, and the Individual" 7 <sup>th</sup> Annual Meeting of the Priority Program – "New Frameworks for Rationality" Etelsen, Germany February 2018		
"Prospects and Problems for Using Mediation to Model Racial Discrimin Keynote – Symposium on Causal Analysis in the Social Sciences, Netherlands Statistical Society – Social Sciences Division		
"Causal Commensurability"* Seminar on Causal and Explanatory Reasoning, Venice	November 2017	
"Modern Mediation and Causal Explanation"* Causal Cognition Lab Seminar, UCL, London	October 2017	
"Can Causal Models Include Variables with Their Time-Derivatives?" Time and Causality in the Sciences, Hoboken, New Jersey	June 2017	
"Extrapolative Inferences" Reasoning and Argumentation in Science, Munich, Germany	June 2017	
"Does Causal Extrapolation Involve Ampliative Inferences?" Ampliative Reasoning in the Sciences, Ghent, Belgium	May 2017	
"Rethinking Between- and Within-Subjects Causes"*		

"Rethinking Between- and Within-Subjects Causes"\*

Causality in Psychological Modeling, Groningen, Netherlands	May 2017
"Mediation and Defaults"* 6 <sup>th</sup> Annual Meeting of the Priority Program – "New Frameworks f Etelsen, Germany	for Rationality" March 2017
"Mechanisms Without Mechanistic Explanations"* Munich Center for Mathematical Philosophy Colloquium Series	November 2016
"Mechanisms Without Mechanistic Explanations" 25 <sup>th</sup> Biennial Meeting of the Philosophy of Science Association	November 2016
"Equilibrium Systems and Intentions: A Causal Analogy" (with Alessand Agency and Causation Workshop, Ghent University	ra Marra) October 2016
"Reversibility in Causal Systems"* Research Seminar, Düsseldorf University	May 2016
"Modes of Connectivity and Causality in the Brain" (with Matteo Colom Causality in the Sciences of the Mind and Brain, Aarhus	bo) June 2016
"Causal Systems"* Logical and Methodological Analysis of Scientific Reasoning Pro Ghent University	cesses May 2016
"Causal Models, Dynamic Systems, and Brain Connectivity"* 5 <sup>th</sup> Annual Meeting of the Priority Program – "New Frameworks t Etelsen, Germany	for Rationality" March 2016
"What is the Problem of Extrapolation?"* Philosophy and Ethics Seminar, Department of Industrial Enginee Eindhoven University of Technology	ring November 2015
"Explanation in Causal Modeling" 50 Shapes of Scientific Explanation, Ghent University	November 2015
"Probabilistic Causality, Structural Equations, and Causal Intermediaries" Causal and Probabilistic Reasoning, Munich Center for Mathemat	
"The Causal Faithfulness Condition is not a Parsimony Principle" 8th Munich-Sydney-Tilburg Conference in Philosophy of Science Tilburg University	June 2015
"Where Parameters Come From: The Causal Conditions Under Which Fa Eastern Division of the American Philosophical Association	ithfulness Fails" December 2014

"The Alleged Predictive Incompatibility of Genic and Genotypic Selection Models" International Society for the History, Philosophy and Social Science of Biology University of Utah July 2011

#### **INVITED COMMENTARIES**

On David Danks' "Chaos, Causation and Describing Dynamics"	
Philosophical Perspectives on Causal Reasoning in Biology	
University of Minnesota	May 2012

## HONORS

Humboldt Research Fellowship for Postdoctoral ResearchersAlexander von Humboldt Foundation2019

The Genevieve Gorst Herfurth Award for Outstanding Research in Social Studies, Honorable Mention 2015 For "If Intelligence is a Cause, it is a Within-Subjects Cause"

PSA Graduate Student Essay Award 2014

Awarded annually by the Philosophy of Science Association of America to "the best single-authored essay written by a graduate student." Essay Title: "If Intelligence is a Cause, it is a Within-Subjects Cause"

Awards Committee: James Woodward (Chair), Lindley Darden, Stephan Hartmann, and Alan Richardson

- Mellon Summer Fellowship 2014 Highly competitive award to assist dissertation completion.
- William Hay Summer Fellowship2013Summer research grant (awarded by the UW philosophy department)

Adam Leroy Jones Prize 2008 Recognizing the best essay on any topic in the philosophy of science or foundations of logic. Awarded by the Columbia University philosophy department.

### **TEACHING – FULL RESPONSIBILITY**

#### **Does Causation Play a Role in the Sciences?**

Masters seminar. Addressed questions about naturalism, reduction and the methodology of philosophy of science through the lens of philosophical theories of causation and debates regarding their relationship to fundamental physics.

#### **Introduction to Logic**

Covered sentential logic and predicate logic with and without identity.

#### **Introduction to Ethics**

Focused on consequentialism, Kantianism and value theory. Throughout the course I emphasized different conceptions of pleasure and its value. I also covered divine command theory, partiality, ethical egoism and moral saints.

### **Contemporary Moral Issues** (Small class format, taught twice)

Covered the following topics: animal ethics, euthanasia, climate change and future generations, abortion, death penalty, drug policy, government surveillance, distributive justice. The class met four times a week. Requirements: four short papers, one long paper and participation in an "undergraduate conference" to present the longer paper.

### **TEACHING – TUTORIALS**

Logica (Logic) (Course Coordinator: Reinhard Muskens; Official Title: Lecturer) Including: sentential logic, predicate logic with and without identity.

### **TEACHING – TEACHING ASSISTANT**

### **Contemporary Moral Issues** (2x, Brighouse)

Covered the following topics: abortion, euthanasia, death penalty, parent licenses, school vouchers, the gendered division of labor, corporate responsibility, cloning.

### **Introduction to Philosophy** (2x, Sidelle, Southgate)

Covered the following topics: The Euthyphro Dilemma, Epistemology (Descartes and Hume), Ethics (relativism, utilitarianism, Kant), God, Free Will, and Personal Identity

# **Introduction to Symbolic Logic** (3x, Rothschild, Titelbaum)

Including: sentential logic, predicate logic with and without identity.

#### **Business Ethics** (Hunt)

Covering the following topics: Corporate responsibility, insider trading, liability law, drug testing, Jane Jacobs' *Systems of Survival*.

#### **Introduction to Ethics** (Fletcher)

Covered the following topics: Pleasure (in Plato and Epicurus), Courage, Aristotelian virtue ethics, Utilitarianism, Kantianism, Situationist challenges to ethics.

#### **RESEARCH ASSISTANT**

Elliott Sober (2012 & 2010)

I did research on the history of the "principle of causality," provided feedback on drafts of articles, and helped with the revisions of the fifth edition for the introductory textbook *Core Questions in Philosophy*. I also researched the role of parsimony in Aristotle's biology, helped organize the Philosophy of Biology in Madison conference and assembled various bibliographies.

#### SERVICE

**Referee for**: Analysis, British Journal for the Philosophy of Science, BioScience, Dialectica, Eidos, Erkenntnis, European Journal for the Philosophy of Science, Journal of Causal Inference, Foundations of Science, International Studies in the Philosophy of Science, Journal for General Philosophy of Science, Mind, Minds and Machines, Philosophical Psychology, Philosophical Quarterly, Philosophy of Science, Review of Metaphysics, Studies in History and Philosophy of Science, Synthese, Theoria, Topics in Cognitive Science

**Dissertation Committees**: Riet van Bork *Interpreting Psychometric Models* Psychology, University of Amsterdam

### June 14, 2019

### **Conferences and Workshops Organized**

"Making Hard Choices: The Ethics and Economics of Healthcare" May 8<sup>th</sup> 2018 Tilburg University. Keynote: Dan Hausman. Co-organizers: Bart Engelen, Huub Brouwer

### **Positions:**

Graduate Student President (academic year 2010-2011)

# LANGUAGES

English – Native Language Hebrew – Fluent Dutch – Conversational German – Conversational

# REFERENCES

# Daniel M. Hausman

Herbert A. Simon Professor and Hilldale Research ProfessorDepartment of Philosophy608-263-3700600 N. Park StMadison, WI 53706

### **Elliott Sober**

Hans Reichenbach Professor & William F. Vilas Research ProfessorDepartment of Philosophy608-263-7478600 N. Park StMadison, WI 53706

### **Malcolm Forster**

Distinguished Professor Department of Philosophy of Science Fudan University Shanghai, China malcolm.forster@live.com

### **James Woodward**

Distinguished Professor of History and Philosophy of Science Department of History and Philosophy of Science University of Pittsburgh 412-624-5896 jfw( 1017 Cathedral of Learning Pittsburgh, PA USA 15260

# **Edouard Machery**

Distinguished Professor Center for Philosophy of Science University of Pittsburgh 1117 CL Pittsburgh PA 15260 USA

# Jesse Steinberg

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# Stephan Hartmann

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jfw@pitt.edu

# **GRADUATE COURSES TAKEN**

### **Philosophy of Science**

Mental Causation (Shapiro) Mathematization of Nature (Forster) Induction (Titelbaum) Parsimony (Sober) Bayesianism (Titelbaum)\* Graphical Models for Causal Inference (Steiner/Elwert)\* The Mediation of Causal Effects in Education (Gamoran)\* Idealization, Modeling and Asymptotic Reasoning (Batterman)\*

### **Philosophy of Biology**

Philosophy of Biology – Units of Selection (Sober) Philosophy of Biology Survey (Sober)\*

# **Philosophy of Cognitive Science**

Philosophy of Mind (Shapiro) Philosophy of Language (Gaifman) Philosophical Foundations of Cognitive Science (Allen)\*

### Normative Ethics and Normativity

Normativity (Shafer-Landau) Moral Dilemmas (Vranas) Deontic Logic (Vranas) Objectivity of Reasons (Titelbaum)

### Kant and Early Modern Philosophy

Kant (Gibson) Kant (Messina)\* Leibniz (Nadler)

### **Other Courses**

Aesthetics and Politics (Carman and Goehr) Material Objects (Sidelle)\* Incompleteness Results in Logic (Gaifman)\*

\* denotes audited class