

# Angela Potochnik

Associate Professor  
Department of Philosophy  
University of Cincinnati

## AREAS OF SPECIALIZATION

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Philosophy of Science, Philosophy of Biology, History of Logical Empiricism

## AREAS OF COMPETENCE

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History of Analytic Philosophy, Logic, Metaphysics, Epistemology

## ACADEMIC APPOINTMENTS

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### University of Cincinnati

Associate Professor of Philosophy, 2013 – present  
Inaugural Director of Center for Public Engagement with Science, 2017 – present  
Director of Graduate Studies, 2014 – present  
Affiliated Faculty, Women's, Gender, and Sexuality Studies, 2012 – present  
Assistant Professor of Philosophy, 2010 – 2013

### Oklahoma State University

Assistant Professor of Philosophy, 2008 – 2010  
Affiliated Faculty, Gender and Women's Studies, 2009 – 2010

## EDUCATION

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### Stanford University: Philosophy, MA 2004, PhD 2007

#### Dissertation: *Evolution, Explanation, and Unity of Science*

Advisors: Elliott Sober and Michael Friedman  
Committee Members: Helen Longino and Peter Godfrey-Smith  
University Chair: Marcus Feldman (Biology)

### Hendrix College: Philosophy, BA 2002

Honors in Philosophy, *Summa cum Laude*

## GRANTS, FELLOWSHIPS, AND AWARDS

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Runner Up for the Dean's Award for Teaching Excellence, UC College of Arts and Sciences, 2017

Inaugural recipient of a 'Rising Star' Award, University of Cincinnati College of Arts and Sciences, 2017

Planning Committee, NEH Next Generation PhD Planning Grant, to enhance pathways from humanities PhDs to non-academic professions, University of Cincinnati, 2016-2017

Research Fellowship, Charles Taft Research Center, University of Cincinnati, 2013-2014

Taft Award to partially fund a three-day conference, University of Cincinnati, 2012

University Research Council Summer Research Fellowship, University of Cincinnati, 2012

Marjorie Grene Prize, biannual award for the best graduate student manuscript from a meeting of the International Society for History, Philosophy and Social Studies of Biology, 2011-2013

Taft Summer Research Grant, University of Cincinnati, 2011

Visiting Research Fellowship, Michelle R. Clayman Institute for Gender Research, Stanford University, Autumn and Winter Quarters, 2010 - 2011

Postdoctoral Fellowship, Center for Philosophy of Science, University of Pittsburgh 2010-2011 (declined for Clayman Institute Research Fellowship)

Dean's Incentive Grant, Oklahoma State University, 2009

Fae Rawdon Norris Grant to organize a visiting lecture, Oklahoma State University, 2009

President's Medal, for the senior "best exemplifying the highest ideals of the college," Hendrix College, 2002

R.G. Shoemaker Award, for the outstanding graduating senior in philosophy, Hendrix College, 2002

**BOOKS**

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*Idealization and the Aims of Science*, University of Chicago Press, 2017.

*Recipes for Science: An Introduction to Scientific Methods and Reasoning*, with Matteo Colombo and Cory Wright, Routledge, in press, expected August 2018. Equal authorship.

**ALL OTHER PUBLICATIONS**

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"Mechanisms Are Causes, Not Components: A Response to Connolly, et al." with Brian J. McGill, *Trends in Ecology and Evolution*, forthcoming. Second author.

"Eight Other Questions about Explanation," in *Explanation Beyond Causation*, Alexander Reutlinger and Juha Saatsi (Eds.), Oxford University Press, in press, expected July 2018.

"Scientific Explanation: Putting Communication First," *Philosophy of Science*, Symposium Proceedings PSA2014, 2016, 83: 721-732.

"The Diverse Aims of Science," in a special issue of *Studies in History and Philosophy of Science*, 2015, 53: 71-80.

"Causal Patterns and Adequate Explanations," *Philosophical Studies*, 2015, 172(5): 1163-1182.

"Toward Philosophy of Science's Social Engagement," with Francis Cartieri, in a special issue of *Erkenntnis* on socially engaged philosophy of science, 2014, 79(5): 901-916.

Editor, Socially Engaged Philosophy of Science, special issue of *Erkenntnis*, 2014, 79(5): 901-1017.

"Biological Explanation," 2013, in K. Kampourakis (Ed.), *The Philosophy of Biology: A Companion for Educators*, vol. 1 of History, Philosophy and Theory of the Life Sciences, chapter 4, pages 49-65, Springer.

Review of Helen Longino, *Studying Human Behavior: How Scientists Investigate Aggression and Sexuality* (University of Chicago Press, 2013), *Notre Dame Philosophical Reviews*, 2013.

"Defusing Ideological Defenses in Biology," *BioScience*, 2013, 63(2): 118-123.

"Feminist Implications of Model-Based Science," *Studies in History and Philosophy of Science*, 2012, 43(2): 383-389.

"Modeling Social and Evolutionary Games," *Studies in History and Philosophy of Biological and Biomedical Sciences*, 2012, 43(1): 202-208.

"The Limitations of Hierarchical Thinking," with Brian McGill, *Philosophy of Science*, 2012, 79(1): 120-140. Primary authorship.

Essay Review of Roughgarden's *The Genial Gene*, in "Sex and Sensibility: The Role of Social Selection," Erika Milam, Roberta Millstein, Angela Potochnik, and Joan Roughgarden, *Metascience*, 2011, 20(2), 253-277.

"A Neurathian Conception of the Unity of Science," *Erkenntnis*, 2011, 34(3): 305-319.

"Explanation and Understanding: An Alternative to Strevens' *Depth*," *The European Journal for the Philosophy of Science*, 2011, 1(1): 29-38.

"Explanatory Independence and Epistemic Interdependence: A Case Study of the Optimality Approach," *The British Journal for the Philosophy of Science*, 2010, 61(1): 213-233.

"Levels of Explanation Reconceived," *Philosophy of Science*, 2010, 77(1): 59-72.

"Optimality Modeling in a Suboptimal World," in a special issue of *Biology and Philosophy*, edited by Patrick Forber, 2009, 24(2): 183-197.

"Optimality Modeling and Explanatory Generality," *Philosophy of Science*, 2007, 74(5): 680-691.

"Revisiting Galison's 'Aufbau/Bauhaus' in Light of Neurath's Philosophical Projects," with Audrey Yap, *Studies in History and Philosophy of Science*, 2006, 37(3): 469-488. Equal authorship.

## WORK IN PROGRESS

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"What We're Talking About When We're Talking about Levels," for a volume based on the Altenberg Workshop on Hierarchy and Levels of Organization, KLI (in progress).

"What Constitutes an Explanation in Biology?," in K. Kampourakis and T. Uller (Eds.), *Philosophy of Science for Biologists*, chapter 7 (invited, contracted with Cambridge University Press).

"Patterns in Cognitive Phenomena and a Variety of Explanatory Styles," with Guilherme Sanches de Oliveira, for a special issue of *TopiCS* (invited).

## SELECTED INVITED PRESENTATIONS

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Workshop on idealization, Prague, June 2019 (upcoming)

University of Minnesota, April 2019 (upcoming)

University of Colorado, Boulder, April 2019 (upcoming)

Keynote address, *Evolution Evolving* conference, Cambridge University, April 2019 (upcoming)

University of Pittsburgh, September 2018 (upcoming)

"Idealization and Understanding," Orange Beach Epistemology Workshop, May 2018

Author-meets-critics session on *Idealization and the Aims of Science*, with Catherine Elgin, Bradley Skow, and Michael Strevens, American Philosophical Association, Pacific Division Meeting, San Diego, March 2018

"Prizing Apart Levels Concepts," Altenberg Workshop on Hierarchy and Levels of Organization, Konrad Lorenz Institute for Evolution and Cognition Research, Vienna, March 2018

"Causal Patterns and Idealization in Biology," Department of Biology, University of Cincinnati, November 2017

"Idealization and the Aims of Science," Bryn Mawr, November 2017

"Idealization and the Aims of Science," Wake Forest University, November 2017

"Explaining with Idealizations," University of Notre Dame, October 2017

"Idealization and the Aims of Physics?," Department of Physics, University of Cincinnati, September 2017

"Explaining with Idealizations," University of California Davis, May 2017

"Explaining with Idealizations," University of Maryland, February 2017

"How Idealizations Represent and Explain," University of Kansas, December 2016

Author-meets-critics session on James Tabery's *Beyond Versus: The Struggle to Understand the Interaction of Nature and Nurture*, American Philosophical Association, Pacific Division Meeting, Vancouver, April 2015

"How Scientific Explanations Generate Understanding," Case Western Reserve University, February 2015

"Explaining with Idealizations," Workshop on Modeling and Scientific Explanation, Jerusalem, June 2014

"Causal Patterns and Adequate Explanations," Department of Philosophy, Indiana University, April 2014

"Causal Patterns and Adequate Explanations," Philosophy Club, Saint Louis University, February 2014

"Science Isn't After the Truth," Missouri Philosophy of Science Workshop, University of Missouri, October, 2013

"Increasing Realism Without Getting Real," invited paper at the American Philosophical Association, Pacific Division Meeting, San Francisco, March 2013

"Modeling Social and Evolutionary Games," Department of Biology, University of Cincinnati, April 2012

"Idealizing the Realizers," American Philosophical Association, Pacific Division Meeting, Group Program, April 2011

"Feminist Implications of Model-Based Science," Philosophy of Biology Lab Group, University of California, Davis, Feb. 2011

"The Limitations of Hierarchical Thinking," Department of Philosophy, Stanford University, Nov. 2010

"Modeling Social and Evolutionary Games," Philosophical Pizza Munch, California Academy of the Sciences, Oct. 2010

"Cooperation, Competition, and the Evolution of Sex," Philosophy Club, Oklahoma State University, Feb. 2010

"Explanation and Understanding," Department of Philosophy, University of Cincinnati, Jan. 2010; and Department of Philosophy, University of Kentucky, Feb. 2010

"Science in a Complex World: Lessons from Biology," Steel Center Lecture, Hendrix College, March 2009

"Cooperation, Competition and the Evolution of Sex," Department of Philosophy, Hendrix College, March 2009

"Evolution and Contextual Explanation," Department of Philosophy, University of Washington, Jan. 2009

"Philosophical Lessons from the Historical Sciences," School of Geology, Oklahoma State University, Sept. 2008

"Situating the Optimality Approach in Population Biology," Department of Zoology, Oklahoma State University, Sept. 2008

"Philosophical Lessons from the Historical Sciences," Philosophy Club, Oklahoma State University, Sept. 2008

"The Unity of Science in a Disordered, Dappled World," Departments of Philosophy at Syracuse University; University of California, Davis; University of Western Ontario; Florida State University; Oklahoma State University; and California State University, Long Beach; Jan. and Feb. 2008

"Evolution and the Unity of Science," Undergraduate Philosophy Association, Stanford University, Nov. 2005

"Another Kind of Unity: The Case of Evolutionary Modeling," Philosophical Pizza Munch, California Academy of the Sciences, Oct. 2005

"Otto Neurath's Philosophy and Politics," with Audrey Yap, Undergraduate Philosophy Association, Stanford University, Oct. 2004

**SELECTED REFEREED PRESENTATIONS**

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"Idealization and Many Aims," in a Symposium on "Understanding and the Aims of Science," Philosophy of Science Association Biennial Meeting, Seattle, November 2018 (upcoming)

"Causal Patterns and Actual Causes," in a session on "Modeling Real Patterns in Biology," International Society for the History, Philosophy, and Social Studies of Biology, University of Montreal, July 2015

"Putting Communication First," in a Symposium on Scientific Explanation: Communication, Representation, Objectivity, Philosophy of Science Association Biennial Meeting, Chicago, November 2014

"Idealization and the Limits of Science," Models and Simulations in the Sciences: Perspectives from Philosophy, History, and Policy, University of Notre Dame, May 2014

"Science Isn't After the Truth," American Philosophical Association, Pacific Division Meeting, San Diego, April 2014

"Non-Causal Features of Causal Explanations," A Conference in Honor of Elliott Sober, University of Wisconsin, Madison, May 2013

"Defusing Ideological Defenses in Biology," Philosophy of Science Association Biennial Meeting, San Diego, Nov. 2012

"A Dispute over the Basics of Nature," part of a critical discussion of Roughgarden's *The Genial Gene*, International Society for the History, Philosophy, and Social Studies of Biology, University of Sydney, July 2009

"Optimality Explanation as Anti-Reductionism," International Society for the History, Philosophy, and Social Studies of Biology, University of Exeter, July 2007

"Generality, Complexity, and Approaches to Explanation," American Philosophical Association, Pacific Division Meeting, San Francisco, April 2007

"Optimality Modeling and Explanatory Generality," Philosophy of Science Association Biennial Meeting, University of British Columbia, Nov. 2006

"Optimality Modeling and Explanatory Generality," Southwest Colloquium in History and Philosophy of the Life Sciences, University of California, Davis, April 2006

"Another Kind of Unity: The Case of Evolutionary Modeling," International Society for the History, Philosophy, and Social Studies of Biology, University of Guelph, July 2005

"Another Kind of Unity: The Case of Evolutionary Modeling," Philosophy of Biology Workshop, Stirling University, May 2005

"A Shift in Wittgenstein's Position on Syntax," The International Society for the History of Philosophy of Science, University of San Francisco, June 2004

**SELECTED PUBLIC-FACING ACTIVITIES**

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"Idealization and the Aims of Science," book event at the Mercantile Library, Cincinnati, April 2018

Participant in the Beyond the Ivory Tower writing workshop, facilitated by James Ryerson, Editor, New York Times (competitive selection process) May 2018

## TEACHING AND ADVISING

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### Graduate Courses

Phil 8060: Complexity and Structural Causes Across the Sciences	2018
Phil 7021: History of Logical Empiricism	2012, 2017
Phil 6041: Graduate Logic	2015, 2018
Phil 8060: Idealization in Science	2014
Phil 8060: Socially Engaged Philosophy of Science	2012
Phil 740: Philosophy and Evolutionary Biology	2011
Phil 239: Teaching Methods (Stanford University)	2007, 2008

### Undergraduate Courses

Hist 3096/Phil 3096: Vienna and the Birth of Modern Culture (with Katherine Sorrels)	2017
Phil 2010: Symbolic Logic	2014 - 2018
Phil 1032: How Science Works	2012, 2015
Phil 123: Introduction to Logic	2011, 2012
Phil 336: Gender and Science	2011
Phil 212: Twentieth Century Philosophy	2011
Phil 1313: Logic and Critical Thinking (Oklahoma State University)	2008 - 2010
Phil 4990: History of Analytic Philosophy (Oklahoma State University)	2010
Phil 4733: Philosophy of Biology (Oklahoma State University)	2009
Phil 4983: Metaphysics and Epistemology (Oklahoma State University)	2009
Phil 4713: Philosophy of Science (Oklahoma State University)	2008
Phil 195A: Unity of Science (Stanford University)	2008
Phil 50: Introductory Logic (Stanford University)	2008

### PhD Dissertation Chair

Guilherme Sanches de Oliveira: *Scientific Modeling Without Representationalism*  
Richard Stephenson

### PhD Committees

Alex Huffman: <i>The Metaphysics and Semantics of Natural Kinds: A Case for Kind Nominalism</i>	
Matthew Baxendale (Central European University): <i>Levels of Organisation in Scientific Practice</i>	
Frank Faries: <i>Big Data and the Integrated Sciences of the Mind</i>	
Eric Rogers: <i>Building a Better Invasion Biology: A Normative Approach to the Problem of Terminological Disunity</i>	
Francis Cartieri: <i>Is Evolutionary Biology Possible?</i>	
Maurice Lamb: <i>Characteristics of Non-Reductive Explanations in Complex Dynamical Systems Research</i>	PhD 2015
Vanessa Bentley: <i>Building a Feminist Philosophy of Cognitive Neuroscience</i>	PhD 2015
Hayden Thornburg: <i>New Work for a Theory of Emergence</i>	
Nina Atanasova: <i>Animal Models and the Unity of Neuroscience</i>	PhD 2014

### Other Graduate Mentoring

Teaching mentor, Mohan Pillai, Introduction to Logic	2018
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PhD Qualifying Exam Committees, Philosophy of Science (2) 2017  
 Philosophical writing mentoring 2015, 2017  
 Vanessa Bentley, MA Thesis Co-advisor, Women's, Gender, and Sexuality Studies MA committee:  
*Establishing the case for discipline-specific feminist philosophy of science* MA 2013  
 Vanessa Bentley, Independent study on Feminist Philosophy of Science, WGSS 811 2012

### Pedagogical Training

Participant in STEM Teaching and Learning Workshop: Hidden inequities in active learning 2017  
 Presentation on combatting implicit bias and stereotype threat in the classroom  
     with Vanessa Carbonell, at a university-wide professional training workshop 2015  
     with Vanessa Carbonell, at UC's Annual Diversity Conference 2014  
 Participant in CET&L Showcasing Your Teaching workshop, University of Cincinnati 2012  
 Participant in CET&L Teaching Large Classes workshop, University of Cincinnati 2011

## PROFESSIONAL AND SERVICE ACTIVITIES

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### Service to the Profession

Associate Editor, *Biology and Philosophy* 2017 - present  
 Category Editor for PhilPapers (Models and Idealization) 2017 - present  
 Leaf Editor for PhilPapers (Unity of Science) 2010 - present  
 Member of the PSA2018 Program Committee 2017 - 2019  
 Member of the MS8 (Models and Simulations Conference) Program Committee 2017 - 2018  
 Assistant local organizer for the 2018 Ohio Philosophical Association meeting 2017 - 2018  
 Invited speaker at the Early Career Development Workshop, ISHPSSB conference in Montreal 2015  
 Invited Comments on Woodward's talk at a conference in honor of Hausman, UW Madison 2015  
 Organizer of "Explanation: Communication, Representation, Objectivity," Symposium,  
     Philosophy of Science Association Biennial Meeting 2014  
 Comments on Joel Velasco's "Species, Genes, and the Tree of Life," Pacific APA 2010  
 Comments on Robert Northcott's "Genetic Drift," Eastern APA 2009  
 Organizer of "The Genial Gene: Author Meets Critics," ISHPSSB Conference 2009  
 Reviewer for *Australasian Journal of Philosophy, Biology and Philosophy* (2), *BioScience*,  
*The British Journal for the Philosophy of Science* (2), *Ergo, Erkenntnis* (3), *European  
 Journal of Philosophy of Science* (2), *Hypatia*, *The International Journal of Philosophy  
 of Science*, *The Journal of Aesthetics and Art Criticism*, *Perspectives on Science*,  
*Philosophers' Imprint*, *Philosophical Studies*, *Philosophy and Phenomenological  
 Research* (2), *Philosophy and Theory in Biology*, *Philosophy of Science* (12), *Science and  
 Education*, *The Southern Journal of Philosophy*, *Studies in the History and Philosophy of  
 Biological and Biomedical Sciences* (3), *Studies in the History and Philosophy of  
 Science*, *Synthese* (5), *Theoria* (2), Elsevier Press, the Estonian Research Council,  
 Oxford University Press, Minnesota Studies in Philosophy of Science book series,  
 Routledge (3), Springer, the Central States Philosophical Association, and the Konrad  
 Lorenz Institute and Michelle R. Clayman Institute Postdoctoral Fellowship Programs.

### Professional Development

Participant in the UC Women Lead Executive Leadership program, sponsored by the  
     Office of the Provost (competitive selection process) 2016 - 2017  
 Participant in the FORTE workshops: Pathways to Leadership, University of Cincinnati 2015  
 Participant in The Op Ed Project (sessions held at UC; competitive selection process) 2014 - 2015



Participant in the Function and Evolution Working Group at the National Institute for Mathematical and Biological Synthesis, University of Tennessee 2009 - 2010  
 Participant in the Ecology and Evolution Reading Group, Oklahoma State University 2009 - 2010  
 Participant in the Roughgarden Lab meetings, Stanford University 2007 - 2008  
 Member of Science and Technology Studies Writing Group 2006 - 2008  
 Coordinator of interdisciplinary reading group on feminist philosophy of science, Stanford 2006  
 Presenter, Participant in Logical Methods in the Humanities discussion series, Stanford 2002 - 2006  
 Participant in interdisciplinary reading group on biology and feminism 2004

**University of Cincinnati: Philosophy Department**

Director of Graduate Studies for the Philosophy Department 2014 - present  
 Member of Workload Review Committee 2018  
 Member of the Diversity Task Force 2011 - 2016  
 Member of the Department Head Search Committee 2015  
 Member of Merit Review Committee 2014 - 2015  
 Member of the Graduate Studies Committee 2011 - 2013  
 Organizer of 49th Annual UC Philosophy Colloquium (three-day conference) 2012  
 Member of Taft Undergraduate Fellowship application review committee 2011

**University of Cincinnati: College- and University-Level**

Mentor in the A&S women-to-women mentoring project 2016 - present  
 Representative (A&S Humanities) on the University Graduate Council 2015 - present  
 Member of the Graduate Council of the College of Arts and Sciences 2014 - present  
 Co-Chair of the Graduate School Decanal Review Committee 2017 - 2018  
 Member of Executive Committee, Graduate Council of the College of Arts and Sciences 2017 - 2018  
 Assembled Head's Guide to Managing Adjunct Faculty, presented at Provost Senior Staff Meeting, New Heads Orientation, influenced HR adjunct on-boarding (with two other faculty) 2016- 2017  
 Member of the Taft Faculty Fellowship Committee 2016 - 2017  
 Member of the Classics Department Head Search Committee 2014 - 2015  
 Member of the Diversity Task Force for the College of Arts and Sciences 2013 - 2014  
 Member of University Research Council's Review Committee for Undergrad. Fellowships 2012 - 2013

**Oklahoma State University**

Reviewer of travel grant proposals for the College of Arts and Sciences 2010  
 Developer and coordinator of the writing component of the MA Proseminar 2009  
 Member of the Modern Comprehensive Exam Committee 2008 - 2010