

CURRICULUM VITAE

Angela M. Potochnik

Assistant Professor of Philosophy

Oklahoma State University
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Stillwater, OK 74078
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EDUCATION

Stanford University

Ph.D. in Philosophy, 2002 – 2007

M.A. in Philosophy, 2002 – 2004

Hendrix College

B.A. in Philosophy, 1998 – 2002

Honors in Philosophy, *Summa cum Laude*

AREAS OF SPECIALIZATION

Philosophy of Biology; Philosophy of Science; History of Philosophy of Science

AREAS OF COMPETENCE

Metaphysics; Epistemology; Logic; History of Analytic Philosophy; Feminist Philosophy of Science; History of Biology

DISSERTATION

Evolution, Explanation, and Unity of Science

In my dissertation, I examine philosophical issues surrounding the debate in biology over how best to model natural selection. Population biologists variously employ optimality models, which represent the evolution of a phenotypic trait without reference to genetics, and genetic models, which represent the genetic dynamics of evolution; each of these approaches has proponents and detractors. My investigation into this debate has two types of results. First, I defend the value of each of these two complimentary approaches and analyze the relationship between them. Second, I use this as a case study that is well situated to shed new light on traditional problems in philosophy of science concerning explanation, reductionism, and the unity of science.

Advisors: Elliott Sober (University of Wisconsin, Madison) and Michael Friedman (Stanford)

Committee Members: Helen Longino (Stanford) and Peter Godfrey-Smith (Harvard)

University Chair: Marc Feldman (Biology, Stanford)

ACADEMIC APPOINTMENTS

Oklahoma State University

Assistant Professor of Philosophy, 2008 – present

Stanford University

Teaching Fellow, 2007 – 2008

PUBLICATIONS

“Levels of Explanation Reconceived,” *Philosophy of Science*, forthcoming.

“Explanatory Independence and Epistemic Interdependence: A Case Study of the Optimality Approach,” *The British Journal for the Philosophy of Science*, forthcoming.

“Optimality Modeling in a Suboptimal World,” *Biology and Philosophy*, 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,” *Studies in History and Philosophy of Science*, Part A, 2006, 37(3): 469-488, with Audrey Yap (equal authorship).

MANUSCRIPTS IN PREPARATION

“Neurathian Unity of Science in a Disordered, Dappled World,” under review.

“Explanation and Understanding: A Response to Strevens’ *Depth*,” under review.

“A Dispute over the Basics of Nature: The Role of Cooperation in Roughgarden’s Social Selection,” in preparation.

INVITED PRESENTATIONS

“Why Integrate Approaches?”

NIMBioS Workshop on integrating functional and evolutionary dynamics, June 2009

“Science in a Complex World: Lessons from Biology”

Steel Center Lecture, Hendrix College, March 2009

“Cooperation, Competition and the Evolution of Sex”

Friday Afternoon Discussion, Hendrix College, March 2009

“Evolution and Contextual Explanation”

Department of Philosophy, University of Washington, January 2009

“Situating the Optimality Approach in Population Biology”

Department of Zoology, Oklahoma State University, September 2008

“Philosophical Lessons from the Historical Sciences”

School of Geology, Oklahoma State University, September 2008

Friends of the Forms, Oklahoma State University, September 2008

“The Unity of Science in a Disordered, Dappled World”

Syracuse University; University of California, Davis; Florida State University; University of Western Ontario;

Oklahoma State University; California State University, Long Beach: all January-February 2008

“Evolution and the Unity of Science”

The Dualist, Stanford University, November 2005

“Otto Neurath’s Philosophy and Politics”

With Audrey Yap, *The Dualist*, Stanford University, October 2004

CONTRIBUTED PRESENTATIONS

“A Dispute over the Basics of Nature,” as part of a critical discussion of Roughgarden’s *The Genial Gene* (2009)
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”

Pacific American Philosophical Association Meeting, San Francisco, CA, April 2007

“Optimality Modeling and Explanatory Generality”

Philosophy of Science Association Biennial Meeting, University of British Columbia, November 2006

Southwest Colloquium in History and Philosophy of the Life Sciences, UC Davis, April 2006

“Another Kind of Unity: The Case of Evolutionary Modeling”

Philosophical Pizza Munch, California Academy of the Sciences, October 2005

International Society for the History, Philosophy, and Social Studies of Biology, University of Guelph, July 2005

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

“Explanations and Extensions of Tit-for-Tat”

Berkeley-Stanford Graduate Student Conference, Stanford University, April 2003

“Overcoming Reductionism: The Case for Specialized *and* Unified Sciences”

National Conference on Undergraduate Research, University of Kentucky, Lexington, April 2002

TEACHING

Instructor, Oklahoma State University

2008 – present

History of Analytic Philosophy (upcoming); Philosophy of Biology; Metaphysics and Epistemology;

Philosophy of Science; Logic and Critical Thinking (Honors); Logic and Critical Thinking

MA Committee, Oklahoma State University

Sarah Mutschelknaus

Instructor, Stanford University 2007 – 2008
Seminar on the Unity of Science; Introduction to Logic; Teaching Methods (pedagogy for graduate students)

Teaching Assistant, Stanford University 2003 – 2005
Theory of Knowledge (Professor Krista Lawlor); Mind, Matter and Meaning (Professor Krista Lawlor);
First-Order Logic (Professor Andrew Arana); Philosophy of Biology (Professor Elliott Sober)

PROFESSIONAL AND SERVICE ACTIVITIES

Oklahoma State University

Developer and coordinator of the writing component of the Master's Program Proseminar 2009 – present
Participant in the Behavioral Ecology and Evolution Reading Group 2009 – present
Co-Organizer of philosophy faculty reading group 2008 – present
Member of the Modern Comprehensive Exam Committee 2008 – present

Service to the Profession

Commentator on philosophy of science colloquium, Eastern APA Meeting (upcoming) 2009
Organizer of "The Genial Gene: Author Meets Critics," ISHPSSB Conference 2009
Reviewer for Routledge University Press and *The International Journal of Philosophy of Science* 2008
Member of the American Philosophical Association, the Philosophy of Science Association, and the International Society for the History, Philosophy and Social Studies of Biology 2002 – present

Stanford University

Mentor TA for the Philosophy Department 2006 – 2008
Member of Science and Technology Studies Writing Group 2006 – 2008
Coordinator of interdisciplinary reading group on Feminist Philosophy of Science 2006
Co-Advisor of Undergraduate Philosophy Association 2004 – 2006
Co-Advisor of *The Dualist* (undergraduate philosophy journal) 2004 – 2006
Presenter and Participant in Logical Methods in the Humanities discussion series 2002 – 2006
Co-President of the Philosophy Graduate Student Organization 2004 – 2005
Participant in interdisciplinary Biology and Feminism reading group 2004
Graduate student representative for departmental faculty meetings 2003 – 2004

GRANTS AND AWARDS

Dean's Incentive Grant, Oklahoma State University 2009
Fae Rawdon Norris Grant to organize a visiting lecture, Oklahoma State University 2009
Departmental Fellowship, Stanford University 2002 – 2007
President's Medal, presented to the graduating senior who "best exemplifies the highest ideals of the college," Hendrix College 2002
R.G. Shoemaker Award for the Outstanding Graduating Senior in Philosophy, Hendrix College 2002

LANGUAGE

German (Speaking and Reading)