



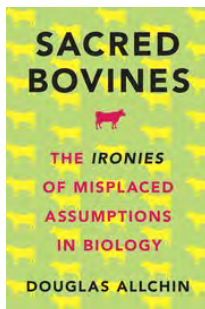
# MINNESOTA CENTER *for* PHILOSOPHY OF SCIENCE

## ✧ Questioning ✧


“Contrary to common understandings, science is not always about ‘plain and simple facts’. ...What better lesson might one offer on the first day of a biology class—to teach *about* science and to promote *the value of asking questions as a part of science*” (*American Biology Teacher* 79:510). So argued Douglas Allchin, philosopher, science educator and Resident Fellow of the Minnesota Center for Philosophy of Science (MCPS). We agree and endeavor to bring together historians, philosophers, scientists, and other scholars to better comprehend how the sciences work and promote the value of asking questions about what implications follow from scientific practices and findings. At the start of this new academic year, we offer a glimpse of some activities and accolades that help us achieve these goals. For more details, visit us online ([www.mcps.umn.edu](http://www.mcps.umn.edu)).

*Alan C. Love*  
Director

Curious about the work of Resident Fellow **Douglas Allchin** (quoted above)? Check out his new book, *Sacred Bovines: The Ironies of Misplaced Assumptions in Biology*, published by Oxford University Press. You also can find chapters from the book online here: <http://sacredbovines.net/>



MCPS Resident Fellow and Minnesota Studies in Philosophy of Science Editorial Board Member **Ruth Shaw** (Ecology, Evolution, and Behavior) was awarded the *2017 Sewall Wright Award*. Established in 1991, the award is given annually and honors a senior but still active investigator who is making fundamental contributions to the primary goal of the American Society of Naturalists: promoting the conceptual unification of the biological sciences.



MINNESOTA CENTER *for*  
PHILOSOPHY OF SCIENCE

COLLOQUIUM

“Thought Experiments  
in Economics”

**MARGARET SCHABAS**  
Department of Philosophy,  
University of British Columbia

Abstract: This paper will demarcate thought experiments from models in economics, and argue that thought experiments and models are distinct types of conceptual tools. There are, however, some models that are near cousins to thought experiments, and vice versa. I will argue that thought experiments are in fact quite rare in economics, past or present. They are launched by a strong if not jarring counterfactual to a distant rather than proximate other world, and the journey the mind then takes back to this world is a familiar one. The paradigmatic case is Hume’s sudden doubling of the money supply, or Friedman’s helicopter drop. But the current rash of thought experiments in environmental economics, as posited by for example Martin Weitzman or Nathaniel Keohane, is misguided. We would be the better for finding a different name for models that speculate well into the future.

Friday, February 10, 2017  
3:35 PM 275 Nicholson Hall  
(refreshments at 3:25)

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See [www.mcps.umn.edu](http://www.mcps.umn.edu) or Facebook.



As part of the grant project *From Biological Practice to Scientific Metaphysics*, **Alan Love** gave a public lecture on “Chance, Evolution, and the Burgess Shale” at the Whyte Museum in Banff, Alberta, Canada.

WHYTE Museum of the Canadian Rockies  
 111 Bear St., Banff T: 403 762-2291 whyte.org



Hallucigenia sparsa (an onychophoran)

## Chance, Evolution, and the Burgess Shale

Thursday, June 22, 7 PM - FREE

Enjoy a fascinating evening with speaker Alan Love, Director of the Minnesota Center for Philosophy of Science and Professor of Philosophy at the University of Minnesota. Love has written extensively on conceptual issues in biology. Much of his work explores ideas about innovation and novelty in Evo-Devo (evolutionary developmental biology).

Learn more at <http://biological-practice-to-metaphysics.org>



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A new volume of  
*Minnesota Studies in  
 Philosophy of Science?*  
 Yes! Coming soon...

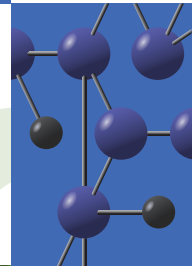


MINNESOTA CENTER for  
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PUBLIC LECTURE

## What is evolvability and how does it matter?

Evolvability is a popular term in biology, but means very different things to different people. For some, it refers to the ability to predict the short-term ability to respond to selection. To others it is the ability to produce genetic variation that allows longer-term evolution. Finally, some treat it as those properties of genetic systems that allow the large evolutionary changes known as macroevolution. I will discuss two big questions at each of these levels. First, how should we go about measuring each of these types of evolvability? Second, is natural selection responsible for the existence or degree of evolvability? Or is evolvability an accidental or unavoidable property of biological systems shaped only indirectly by natural selection? My own work on fly wings suggests a surprising correspondence between evolvability at different time scales, and that evolvability may be an evolved property, and not just an entertaining accident.



Interconnected nodes on a neutral network.  
 Illustration: John Seymour-Anderson



### DAVID HOULE

Department of Biological Science  
 Florida State University

Wednesday,  
 April 26, 2017  
 3:30 PM  
 335 Borlaug Hall

Co-sponsors: Minnesota Center for Philosophy of Science, College of Liberal Arts, College of Biological Sciences, Department of Ecology, Evolution, and Behavior, and the John Templeton Foundation (Grant #46919: "Integrating Generic and Genetic Explanations of Biological Phenomena")

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[generigenetic.umn.edu](http://generigenetic.umn.edu)

## SPRING 2017 - COLLOQUIA

JANUARY 20<sup>TH</sup>

JED ELISON (*UNIVERSITY OF MINNESOTA*)  
 Considering Temporal Heterogeneity in Autism  
*(Annual Science Studies Symposium)*

FEBRUARY 10<sup>TH</sup>

MARGARET MORRISON (*UNIVERSITY OF TORONTO*)  
 Thought Experiments in Economics

MARCH 25<sup>TH</sup>

DAVID M. MILLER (*IOWA STATE UNIVERSITY*)

*Author Meets Readers*

Representing Space in the Scientific Revolution  
*Readers:* Katherine Brading (University of Notre Dame),  
 Samuel Fletcher (University of Minnesota), and Edward  
 Slowik (Winona State University)

APRIL 8<sup>TH</sup>

KATHRYN TABB (*COLUMBIA UNIVERSITY*)  
 The Precision Medicine Turn in Psychiatry:  
 Some Epistemic Puzzles and an Ethical Concern