Sharon Elizabeth Berry

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Education

Ph.D. in Philosophy, Harvard University, spring 2012 (expected)
BA in Philosophy and Mathematics (double major), Columbia University, spring 2004
summa cum laude

Areas of Specialization

Philosophy of Mathematics and Logic, Epistemology, Metaphysics, Philosophy of Language, Aesthetics

Areas of Competence

Philosophy of Science, History of Analytic Philosophy, History of Modern Philosophy, Metaethics, Ethics

Dissertation

Title: The Marriage of Rationalism and Empiricism: A Naturalistic Solution to the Access Problem for Realist Mathematics
Committee: Warren Goldfarb, Ned Hall, Peter Koellner, Bernhard Nickel
Abstract (short): Mathematical facts are abstract in a way that makes our knowledge of them seem hard to explain. I argue that we can explain knowledge of mathematics by drawing on knowledge of combinatorial possibility (possibility with regard to the most general principles about how any objects can be related by any relations), together with observations about patterns of behavior of concrete physical objects. Our observations of the actual relationships between concrete objects canground true beliefs about how it is combinatorially possible for any objects to be related by any relations. In getting largely correct principles for reasoning about what is combinatorially possible, I argue,we can get largely correct axioms and inference rules for reasoning about mathematical objects as well.

Refereed Presentations

"A Two-pronged Strategy for Solving the Platonist's Access Problem" Columbia-NYU Annual Philosophy Graduate Conference 2011 (paper accepted)
"Contra Kim on Epistemic Normativity" Brandeis Graduate Philosophy Conference 2011 (paper accepted)
"Investigator's Paradise: An Epistemic Formalist Theory of Aesthetic Norms" Intermountain West Graduate Philosophy Conference 2011 (paper accepted)
"Combinatorial Possibility and the Access Problem" South-East Philosophy Graduate Conference 2011 (paper accepted)
"Investigator's Paradise: An Epistemic Formalist Theory of Aesthetic Norms" Midsouth Philosophy Conference 2011
"Solving the Access Problem for the Nominalist" Cambridge Graduate Conference on the Philosophy of Logic and Mathematics 2011
"A Posteriori Mathematics and Malament-Hogarth Spaces" Cambridge Graduate Conference on the Philosophy of Logic and Mathematics 2009
"A Posteriori Mathematics and Malament-Hogarth Spaces" Northwest Philosophy Conference 2009
"A Priority and the Doctoroids" Rocky Mountain Philosophy Conference 2009

Other Presentations

Harvard Metaphysics and Epistemology Workshop 2008-2010
Mathematical Knowledge and Explanation

A Naturalistic Account of Mathematical Knowledge II
A Naturalistic Account of Mathematical Knowledge I
A Priori Knowledge Medley: A Problem, Quine Without the Quine, From Justified True Belief to Knowledge
Accounting for a Priori Knowledge of Mathematics: the Metasemantic Story Fixed
Accounting for a Priori Knowledge of Mathematics: the Boggle-Breadbox Model
The Access Problem and Applications Problem in Philosophy of Mathematics

Harvard MIT "Eminees" *One Hierarchy of Sets, Many Targets - Hartry Fields' Access Problem for (Nonplenitudinous) Platonism Solved; The Problem of a Priori *Analytic* Knowledge; Objects that don't really exist? What Neo-Meinongians might mean.* 2009
Cyborgs and the Silence of the Senses 2007

Harvard MIT Graduate Conference 2009
Comments on Jacob Stegenga's "New New Problem of Induction"

Positions and Experience

	20010-2011	
Introduction to Philosophy	teaching assistant (TF)	
Philosophy of Mathematics	TF	
Philosophy of Language	TF	
	2009-2010	
Intermediate Logic	TF	
The Later Philosophy of Wittegenstein	TF	
QR22 (Introductory Logic)	TF	
	2008-2009	
Intermediate Logic	TF	
Epistemology	TF	
Junior Tutorial: A Priori Knowledge	sole instructor	
	2007-2008	
Plato	TF	
Philosophy of Physics	TF	
The Rationalists	TF	
Philosophy of Language	TF	
	2006-2007	
Introduction to Moral Philosophy; Social Protest	TF	
	2003	
Introduction to Symbolic Logic (with Professor Achille C. Varzie, Columbia University)	TF	
	2001-2004	
Undergraduate Philosophy Forum, Columbia University	Co-Chairperson	
	2002-2004	
Columbia Undergraduate Philosophy Review, Columbia University	Editor-in-Chief 09/2002 to 05/2003	
	Senior Editor 09/2003 to 5/2004	
	2001-2002	
Mathematics Tutor for New York City High School Students. Double Discovery Center, Columbia University		

Awards/Honors

Summa Cum Laude 2004 Columbia University
Graduated with Honor in Philosophy 2004 Columbia University
Phi Beta Kappa Honor Society 2004-
Golden Key International Honor Society 2003-
Dean Lists 2000- 2004 Columbia University
Arthur Rose Teaching Assistantship 2003 Columbia University

Long Abstract

If math is about causally inert abstract objects (like numbers and sets), it can seem puzzling that physical creatures like us manage to know so much about it. In response to this difficulty, some philosophers deny the existence of abstract objects, and suggest that mathematics is about some suitably abstract, but nominalist subject matter like: what would be true in a mathematical fiction, or what's a logical consequence of some second order axioms, or what's mathematically necessary. However, knowledge of this abstract subject matter can seem equally puzzling. Facts about what would have to be true in fictions are just as causally removed from us as facts about abstract objects would be. To dissipate the puzzle, what's needed is a theory of how we can possess accurate starting points in mathematical theorizing, and inference procedures that we can use to take us from those starting points to mathematical proofs.

In my thesis, I propose to explain how mathematical knowledge is possible, by drawing on our knowledge of broadly logical or combinatorial possibility (possibility with regard to the most general principles about how any objects can be related by any relations), and connecting this knowledge, in turn, to our observation of the behavior of concrete physical objects. Our observations of the actual relationships between concrete objects, I argue, ground true beliefs about how it is combinatorially possible for any objects to be related by any relations. This process gives us access to facts about combinatorial possibility, access that is fallible and limited.

With empirically-grounded knowledge of combinatorial possibility in hand, I argue that facts about combinatorial possibility are intimately related to facts about mathematics, in such a way that getting correct general principles about combinatorial possibility can lead us to get mathematics right as well. I propose a form of Platonism, on which (for example) all it takes for an ordinal to exist, is for it to be combinatorially possible for some objects to be well ordered in the relevant way. All it takes for there to be a set at some ordinal level alpha of the hierarchy of sets, is for a) all the putative members of the set to be either physical objects or sets that first appear at some level lower than alpha and b) for it to be combinatorially possible that some property applies to all and only these putative members.

Misc

Citizenship: US
Languages: English, German, some Latin, C, Javascript, some Lisp, some Haskell
Outside of philosophy, I am interested in:
Recursion theory http://seberry.logichost.net/the_edge/
The intersection of teaching and game design (http://seberry.logichost.net/jscript_playground/, http://seberry.logichost.net/logicgame/)
Nabokov http://seberry.logichost.net/inconclusive_evidence/