Michigan Philosophy News

Fall 2014

For friends, alumni, alumnae of the Department of Philosophy, University of Michigan, Ann Arbor

INSIDE THIS ISSUE

Dear Friends of Michigan Philosophy,

I write to you as the new Chair of Philosophy, succeeding **Laura Ruetsche**, who has gleefully passed the baton to me and is now enjoying a richly deserved sabbatical. I have been a faculty member in the Philosophy Department since 1987. I have chosen to build my career at University of Michigan because I have found it to be an unsurpassed place to be practicing and teaching philosophy at every level. I have never seen the Department in better shape than now. This owes a lot to Laura's selfless service. It is an honor to have the support of my wonderful colleagues as I assume my duties as Chair, and a relief to take up those duties in a Department in such fine condition. Before we move on to our field reports from our faculty and graduate students, I'd like to share with you some Departmental news highlights.

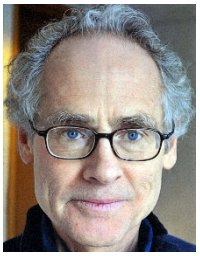
Faculty News

This year **Derrick Darby** joins us as part of our permanent faculty, after spending a term here in Winter 2013. Derrick comes to us from University of Kansas, with specialties in social, political, and legal philosophy and philosophy of race. I taught his stimulating book, *Rights, Race, and Recognition* (Cambridge UP, 2009) in my advanced political philosophy class, where it was a hit with my students. In keeping with UM's interdisciplinary culture, Derrick's current research on race, educational equity, and the racial achievement gap lies at the intersection of philosophy, American history, and law.

We are also lucky to have three visiting faculty join us this year. **Timothy Williamson**, Wykeham Professor of Logic at New College, Oxford, will be offering a graduate seminar for the third year in a row as our Nelson Visiting Professor. **Tina Botts** is a Lecturer in Philosophy and Legal Theory and Fellow in Law and Philosophy for 2014-15. She is an expert in philosophy of law and philosophy of race, currently working on the legal hermeneutics of the Equal Protection Clause of the 14th Amendment. **Beckett Sterner** was awarded a postdoc at the Michigan Society of Fellows, concurrently with a three-year appointment as Assistant Professor of Philosophy. He specializes in the philosophy of biology, with a current focus on the use of "big data" in taxonomy.

David Baker

Peter Railton



Two members of our faculty earned elevated titles in 2013-14. **David Baker**, the youngest among our several distinguished philosophers of physics, has been promoted to Associate Professor. **Peter Railton** has been named the Gregory S. Kavka Distinguished University Professor of Philosophy, one of only eight professors across the University to win a Distinguished University Professorship, one of the highest honors UM can bestow. The DUP is notable for allowing recipients to choose the name in their title, from among those who have previously taught at UM. Hence, it is a two-way honor. Gregory Kavka was a graduate student in Philosophy from 1968-73, earned his Ph.D. with a dissertation supervised by Richard Brandt, and pursued his career as a professor at University of California, Irvine. He made singular contributions to the study of Hobbes's political philosophy, deterrence theory, and the nature of intention (the famous "toxin puzzle"), before his premature death in 1994. Peter chose Greg for his DUP title not only for his notable contributions to philosophy, but to honor the vital role of graduate students in department life, particularly as talented and dedicated teachers of our undergraduates.

Other faculty members won awards and honors in 2013-14. **Laura Ruetsche** won the 2013 Lakatos Award in Philosophy of Science for *Interpreting Quantum Theories* (Oxford UP, 2011). The prestigious Lakatos Award is given by the London School of Economics and Political Science for an outstanding contribution to the philosophy of science in the form of a book published in English during the previous five years. It is *the* leading award in the philosophy of science. **Sarah Moss**'s paper, "On the Pragmatics of Counterfactuals," (*Noûs* 46.3 (2012): 561-86) was selected for reprinting in vol. 33 of the *Philosopher's Annual*, as one of the ten best philosophy articles published in 2013. It was also runner-up for the 2013 Sanders Prize in Epistemology. Her paper, "Epistemology Formalized" (*Philosophical Review* 122.1 (2013): 1-43), won Honorable Mention for the 2014 APA Article Prize.

I spent much of my sabbatical giving named lectures, including the Lindley Lecture at University of Kansas, the Dewey Lecture at the APA Central Division meeting, and my Distinguished University Professor Lecture at UM, which presented another chapter of my work on emancipation and moral epistemology, some of which I summarized in last year's *Michigan Philosophy News*.

Special Events

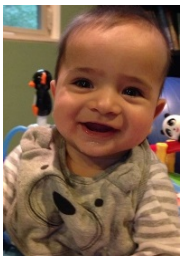
The Philosophy Department hosted numerous special events this past academic year. We kicked off our 2013-14 academic year with the Princeton-Michigan Graduate Metaethics Conference. Our graduate student presenters were **Paul Boswell** ("Do Practical Problems Require Normative Solutions?"), **Nils-Hennes Stear** ("Properties, Ethical and Aesthetic"), **Daniel Drucker** ("Expressivism's Vindicatory Ambitions"), and **Robin Zheng** ("Responsibility, Causality, and Social Inequality").

Our visiting speakers for regular colloquia included an especially rich number of specialists in history of philosophy, including ancient (Pieter Hasper of Indiana, Rusty Jones of Harvard), early modern (William Harper of Western Ontario, Christia Mercer of Columbia), and Kant (Ian Proops, formerly of UM, now at Texas, Lucy Allais of Sussex, Eric Watkins of UCSD), as well as in other fields (Jennifer Nagel of Toronto). We also hosted several specialists in the philosophy of science, including Brad Skow (MIT), Rod Little (UM Biostatistics), and participants in the Foundations of Modern Physics Workshop on the Laws of General Relativity (Robert Geroch and Robert Wald of Chicago, Lydia Bieri of UM Math, and our own **Gordon Belot**). Our Philosophy and Linguistics Workshop sponsored a colloquium on "Context and Discourse" featuring Sam Cumming (UCLA), Jessica Rett (UCLA), Mandy Simons (Carnegie Mellon), Una Stojnic (Rutgers), Matthew Stone (Rutgers), and Ernest Lepore (Rutgers).

The annual Spring Colloquium, organized by our graduate students **Sara Aronowitz**, **Mara Bollard**, **Sydney Keough**, and **Robin Zheng**, was on "Exploring the Subpersonal: Agency, Rationality and Cognition." Preceded by a workshop series whose speakers included Paul Churchland, **Chandra Sripada**, **Sara Aronowitz**, **Warren Herold**, and George Mashour, the March colloquium included Peter Carruthers (Maryland), Frances Egan (Rutgers), Neil Levy (Oxford/Melbourne), Angela Smith (Washington and Lee), and Charles Mills (Northwestern).

March was a busy month, in which Philosophy also hosted the annual Marshall M. Weinberg Symposium. This year's theme was "Neurolaw." Keynote speakers Kent Kiehl (New Mexico), Elizabeth Loftus (UC Irvine), Adina Roskies (Dartmouth), and Francis Shen (Minnesota) discussed such issues as the implications of new brain imaging techniques for law, the inconsistency of legal conceptions of the mind/body distinction with neuroscience, and research on false memories, with commentary from panelists **Sarah Buss**, **Chandra Sripada**, and Kimberly Thomas.

Walter Mischel, the Robert Johnston Niven Professor of Humane Letters in Psychology at Columbia University, delivered UM's Tanner Lecture in Human Values in April on "Overcoming the Weakness of the Will," with commentary by David Laibson (Harvard), John Jonides (Michigan), and **Chandra Sripada.** Mischel is best known for inventing the "marshmallow test," which measures the capacity of children to postpone gratification in favor of larger, future rewards. He brought good news, arguing that impulse control can be learned, and that children can deploy simple techniques to boost their willpower. (Instructed to imagine that the delicious marshmallow before their eyes is merely a *picture* of a marshmallow, children were able to resist eating it. When asked why they resisted, they answered, "You can't eat a picture!")



We closed the academic year with a mini-conference on Formal Epistemology, featuring Richard Bradley (London School of Economics), Miriam Schoenfield (Texas), and Richard Pettigrew (Bristol).

Babies

Chandra Sripada and his wife, Rebecca Kaufman, welcomed their first child, Jay Mill Sripada, on May 2.

Alumni News

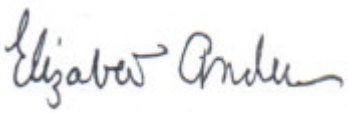
Leslie Francis (Ph.D., 1974), Distinguished Professor of Philosophy at the University of Utah, was elected Vice-President of the APA, Pacific Division. This means she will be President next year!

Appreciation

Michigan Philosophy News can give only a brief summary of our very rich Departmental life. We could not sustain it without the extraordinary generosity of our alumni and friends. Donors help us recruit, retain, and support our outstanding faculty, through such funds as the Malcolm L. Denise Endowment in honor of Theodore Denise (which funds faculty research), the Nathaniel Marrs Fund (for faculty retention), and the Weinberg Professorship. Donors help us support and recognize graduate and undergraduate students, through such funds as the Weinberg Endowment for Philosophy (which pays for our Frankena and Stevenson prizes and graduate summer fellowships, among many other things), and the Candace Bolter Fund (which helps graduate students facing emergencies). Donors support our interdisciplinary engagement, from the Weinberg Fund for Philosophy and the Cognitive Sciences, to the Hough Fellowship in Psychology and Ethics, to the PPE Strategic Fund and the Ferrando Family Lecture Fund, which support our Program in Philosophy, Politics, and Economics.

Donors support our Tanner Philosophy Library and the graduate student editors of the *Philosopher's Annual.* Readers of *Michigan Philosophy News* provide vital support to our program. We acknowledge those who donated to the Department in 2013-14 at the end of this newsletter. If you would like to donate this year, you may do so by using the form on the last page or online through our website at http://www.lsa.umich.edu/philosophy. To all who have given or are soon to give, we owe a huge debt of gratitude.

Cheers,



Elizabeth Anderson
John Dewey Distinguished
University Professor
Arthur F. Thurnau Professor
Chair, Philosophy

Graduate News
By Victor Caston, Director of Graduate Studies

Our graduate students are an immensely talented and energetic group, attaining significant milestones as they progress through their training and begin their careers. They continue to be a source of stimulation and inspiration, and are just an absolute joy to work with. I can only briefly summarize some of their accomplishments during the past academic year (2013/14).

Starting with awards, two of our students won highly competitive Rackham Pre-doctoral Fellowships for the current academic year (2014/15): **Ira Lindsay** and **Robin Zheng**. **Robin** also won the Mary Malcomson Raphael Fellowship from the Center for the Education of Women (something our students have won only on a handful of occasions) and was made a member of the Edward Alexander Bouchet Honor Society. Within the Department, a number of students were recognized for their achievements and contributions. **Nils-Hennes Stear** was awarded a Weinberg Dissertation Award for Summer 2014. The John Dewey Prize, for excellence in teaching by a Graduate Student Instructor, was also awarded to **Nils-Hennes Stear**. The Charles L. Stevenson Prize, for excellence in a dossier, was awarded to **Ira Lindsay**. The Cornwell Prize, awarded for outstanding intellectual curiosity and exceptional promise of original and creative work, was given to **Paul Boswell** and **Adam Rigoni**. Our Weinberg Summer Fellows this year were **Sara Aronowitz**, **Mara Bollard**, and **Sydney Keough**, while **Jeremy Lent** and **Adam Rigoni** received John D'Arms fellowships to work with faculty members who had won the John D'Arms Faculty Award (**Elizabeth Anderson** and **Peter Railton**, respectively).

Our students were also tremendously active in professional activities, including editing, publications, and presentations in professional venues, both here and abroad. **Paul Boswell**, **Daniel Drucker**, and **Sydney Keough** served as student editors for the prestigious *Philosophers' Annual*, which selects the ten best articles in philosophy in a given year. **Adam Rigoni** had a chapter of his dissertation accepted by *Legal Theory*, and also published a paper co-authored with faculty member **Rich Thomason** on the logic of counterpart theory in *Journal of Philosophical Logic,* 43 (2014). **Cat Saint Croix** also co-authored a paper with **Rich Thomason**, on Chisholm's Paradox and conditional oughts, which **Cat** presented at a conference this summer in Ghent and published in *Lecture Notes in Computer Science,* 8554 (2014). **Robin Zheng** presented papers at conferences at the Humboldt Universität zü Berlin, the University of Cape Town, the University of Waterloo, Yale University, and both the Eastern and Pacific meetings of the American Philosophical Association. **Nils-Hennes Stear** spoke at the annual conference of the American Society for Aesthetics in San Diego and at the inaugural Princeton-Michigan Meta-Ethics Conference (2013), organized by our own **Paul Boswell**. **Nicholas Serafin** presented a paper on applying the Laws of War to humanitarian interventions at the Australasian Philosophy Association conference this summer. **Patrick Shirreff** presented a paper "We Need to Talk" at the third Graduate Conference of the Vienna Forum for Analytic Philosophy at the University of Vienna. **Chip Sebens** presented a paper on "Quantum Mechanics as Classical Physics" at the Perimeter Institute for Theoretical Physics in Canada, work on quantum mechanics co-authored with Sean Carroll at the Second International Summer School in Philosophy of Physics in the Schwarzwald, Germany, and at a workshop of the interdisciplinary Foundations of Modern Physics reading group. **Jeremy Lent** presented a paper on "Noncognitive Justice" at the annual meeting of the American Educational Research Association in Philadelphia. **Sara Aronowitz** presented a paper on reliable forgetting at the Jagiellonian-Rutgers Conference in Cognitive Science in Krakow. Both **Mara Bollard** and **Zoë Johnson King** attended the Central European University's Summer Course in Moral Epistemology in Budapest. And last, but definitely not least, **Sara Aronowitz**, **Mara Bollard**, **Zoë Johnson King**, and **Sydney Keough** organized this year's annual Graduate Student Spring Colloquium on "Exploring the Subpersonal: Agency, Rationally, and Cognition," for which they were awarded a mini-grant from the Insitute for the Humanities.

Our current cohorts have also been unusually active in taking the lead to change the boundaries and the climate of our larger philosophical community in ways that are exemplary and have earned our collective admiration and gratitude. **Annette Bryson**, **Cat Saint Croix**, and **Robin Zheng** organized the Michigan chapter of Minorities and Philosophy (MAP), which hosted events by Tim McKay and Kristie Dotson. **Sara Aronowitz** and **Robin Zheng** participated in the Learning Analytics Fellows program, which they used to analyze survey data from philosophy undergraduates collected by our 2013-14 Director of

Undergraduate Studies, **Sarah Buss**. **Annette Bryson** and **Cat Saint Croix** both participated in the first Networking and Mentoring Workshop for Women in Philosophy held this year at Princeton, in which our own **Ishani Maitra** was a mentor. **Kimberly Chuang**, **Zoë Johnson King**, **Jon Shaheen**, **Umer Shaikh**, and **Robin Zheng** went beyond the University to help develop interest in philosophy in the local community, at high schools in Ypsilanti and Detroit, through a community organization called A2Ethics, hosting and coaching teams for the first ever Michigan High School Ethics Bowl. Since then, this group of students has gone on to win an $8,000 Arts of Citizenship Grant in Public Scholarship to develop and expand their program next year. **Robin** is also a member of the American Philosophical Association's Task Force on Inclusion and Diversity, which is chaired by our own **Elizabeth Anderson** (the current chair of the Department).

Because of our graduate students, you can now keep even more up-to-date and hear more about goings-on here in Ann Arbor by following the Department's Twitter feed (@UMPhilosophy), set up and masterminded by our own **Nils-Hennes Stear**. A fabulous group!

Undergraduate News

By Sarah Buss, Director of Undergraduate Studies

I can think of no better way to begin this year's Undergraduate Studies report than with the words of our most recent graduates. Having majored in philosophy, these talented students are now off studying law, medicine, and public health. They have started jobs in business, government, and education. One of them recently sent me a message to announce that he had completed the draft of a novel while traveling around Southeast Asia. Just before they set out on these adventures, I asked them to tell me which philosophical claim they found most intriguing, surprising, or outrageous. I want to share a few of these answers with you.

My intention in asking the students this question was to give their parents a glimpse of the sort of philosophical problems that had captivated their children's imaginations during their time at the University of Michigan. The comments I received certainly served that purpose. But the expressions of enthusiasm and wonder also made an impression on me that I had not anticipated. Those of us who teach courses in the humanities are constantly reminded of how single-mindedly young people are focused on getting stable, well-paying jobs. This message can make it easy to forget how eager our students are to grapple with the really big questions—about the scope and nature of their moral obligations, the relationship between their minds and their bodies, the conditions under which it is possible to discover the truth about these and many other matters. Our students' comments vividly reminded me of what a privilege it is to be able to explore such questions with young people who are just beginning to figure out who they are and what really matters to them. To see what I am talking about, I reproduce a few of these comments here:

> "One of the most surprising claims I encountered during my time here was in Professor **Jacobson**'s class on the works of J.S. Mill. He argued that Mill's motive in Utilitarianism was not necessarily to explain his own moral theory but to defend a more general view of ethics. Professor **Jacobson** also argued that Utilitarianism [does not adequately represent] Mill's other philosophical ideas. These claims and this class blew my mind and made me question Mill's ideas in ways I never had before. This class also taught me in general to not blindly follow, but question not only philosophers' ideas but what other brilliant minds have said about them in the past."

> "The most intriguing philosophical claim I've come across is by Kierkegaard, and it went something like this: The more firmly I hold onto reason in one hand, the more faith pulls at the other, and the more firmly I hold onto faith, the more reason pulls at the other."

> "My favorite issue in philosophy has always been free will. The most surprising claim I've encountered [on this topic] is Rousseau's claim that we can be 'forced to be free.'"

> "I am especially intrigued by the relationship between language and thought: Is it possible to think without thinking in a language?"

> "A philosophical question I find particularly intriguing is whether objective moral truths exist, and even if they do exist, whether inter-subjective agreement reveals anything about these truths."

> "The most outrageous concept I encountered in a philosophy class is backwards causation—the idea that the belief that causes necessarily precede effects is simply a convention, and that quantum mechanical phenomena might be explainable by retrocausation. This suggests that a current physical state can be determined by a state in the future that has not yet obtained!"

> "The philosophy of Epicurus was especially intriguing to me. When we first were introduced to Hedonism—the belief that maximizing pleasure is the primary goal in life—I thought it was rather outrageous. But according to Epicurus, the way to attain the greatest pleasure is to live modestly and to gain knowledge of the workings of the world and the limits of one's desires. This leads one to attain a state of tranquility and freedom from fear, as well as

absence of bodily pain. I enjoyed learning about Epicurus because his beliefs offered me a way to reconcile hedonism with my own understanding of what it is to live a good moral life."

"The most surprising and uncomfortable claim I have come into contact with during my philosophy career was the idea that because we take ourselves very seriously and yet can call our self-importance into question, there is something deeply absurd about our lives which makes it hard to figure out how to live them."

Our majors clearly appreciate the connection between philosophical inquiry and whatever else one does in living a life. They understand that, as I said when the Department celebrated their graduation last May, there is an important conception of "progress" according to which going forward involves taking several steps backward—probing the deeply held assumptions that underlie everything else one believes.

Many of the *nonmajors* enrolled in our courses are equally enthusiastic about the benefits of studying philosophy. But our biggest challenge as a Department is to find ways to encourage more students to sign up for these courses. With this end in mind, we are working to develop more offerings with a broad appeal—courses on human nature and science fiction, and (still in the brainstorming stages) business ethics, the ethics of war, the philosophy of love and death.

We believe that some of these courses may help to address the fact that philosophy tends to attract more men than women. Last year, the bioethics course I developed two years ago was the only larger course in our curriculum (with an enrollment greater than 25) in which women were in the majority. (There were five small-enrollment courses in which women barely outnumbered men.) Most of the students who take this course are initially drawn to the material because they are planning to enter the health care profession. But once they begin confronting the philosophical debates about the nature of autonomous choice, the morality of abortion, the conditions of justice, the nature of disability, the significance of death, they develop the same enthusiasm for probing their own assumptions that is expressed in the comments cited above. In short, this course illustrates that many students who give no thought to studying philosophy will seize the opportunity to do so if they find a topic that seems relevant to something else they care about.

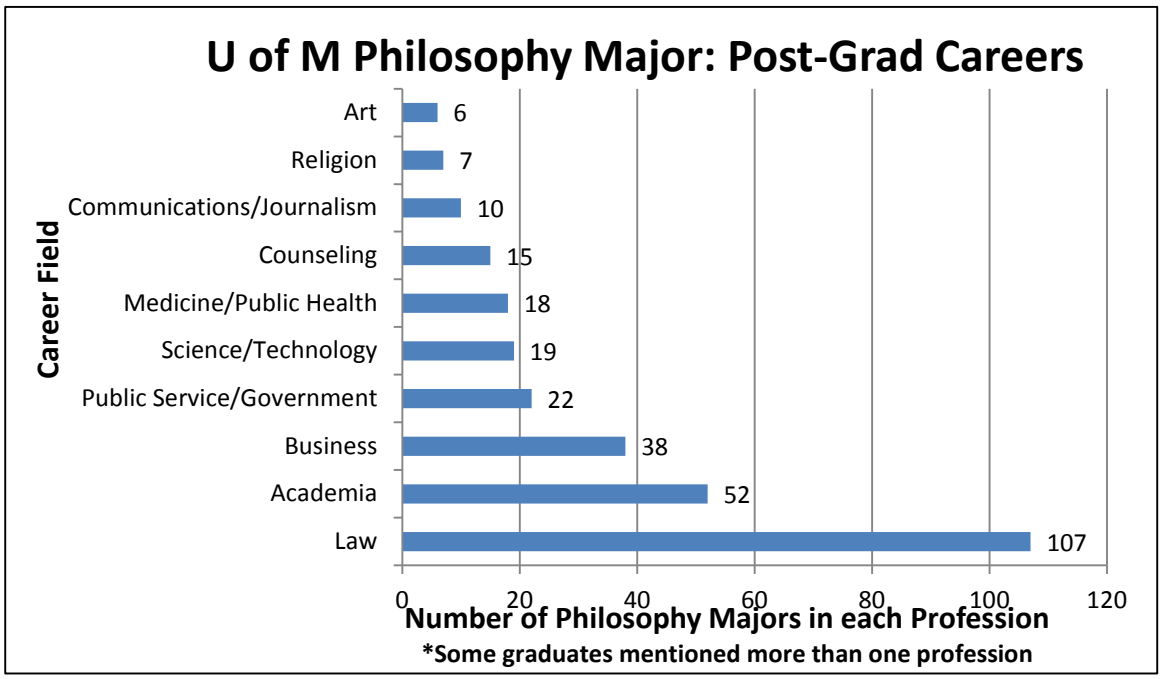
We will have to see whether adjustments in our course offerings will adequately address the gender disparity in enrollments. When two of our graduate students analyzed the data from a survey I distributed last year, they found that even when women did as well in a philosophy course as men, they were more likely to regard the difficulties they encountered as a reason not to enroll in any additional courses offered by the Department. This finding reminds us of how important it is for us to create learning environments in which everyone feels comfortable taking the risks and handling the frustrations that are a necessary part of developing the valuable skills we teach.

We have been taking every opportunity to explain what these skills are and how important they are to acquire, no matter what students intend to do after college. The Department website now includes information about how well philosophy majors perform on the GREs, LSATs, and GMATs, and how successful they are in competing for positions in professional schools of all sorts. (See www.lsa.umich.edu/philosophy/undergraduate/careersmore.) We now hold a pizza party every semester at which we call this information to the students' attention. The expressions of astonishment we get when we point out, for example, that philosophy majors outperform all prebusiness majors on the GMATs, are evidence of just how important this sort of outreach continues to be.

Of course, pizza parties are also lots of fun. We are committed to providing our majors, and other interested students, with enjoyable ways to interact outside the classroom. The Philosophy Club is one such forum. The student-run philosophy journal *The Meteorite* is another. (For the 2013 online issue see http://sitemaker.umich.edu/meteorite/home.) Last spring's Philosophy Movie Night featured *The Minority Report,* with a discussion afterward that focused on free will and moral responsibility.

We would like our majors to think of themselves as part of a community that includes alumni. To this end, we are discussing various ways in which we might make use of the information—and generous offers of help—that we received in response to the letter I sent last fall to those of you for whom I could find an address. (If you did not send us feedback about your post-graduate career and would still like to do so, you are welcome to contact us at umphilalum@umich.edu.) We hope to get permission to post some of your testimonials on our website. And we are also discussing how we might arrange for our students to talk to some of you about career paths they are unlikely to have considered.

I want to thank all 254 of you who took the time to respond to the letter. A few of you requested that I share any general information I gained from these responses. Accordingly, having begun this report with the words of our most recent graduates, I will end it with a brief summary of what some of our other graduates have been doing since they studied philosophy at the University of Michigan.



This graph does not capture the wide range of pursuits that fall into each category (and, of course, some professions do not fall neatly into just one category). To give just a few examples: Among your classmates is the founder of Red Box, the founder of a clothing company, and the founder of a popcorn seasoning company. There is at least one child psychiatrist and an expert in tropical medicine; a legal consultant for USAID; a lawyer for the Consumer Financial Protection Bureau, who previously worked for the Federal Reserve Board and the Office of the Comptroller of the Currency; a labor lawyer with a specialty in special education; a Peace Corps volunteer who is now the general counsel for the Girl Scouts of the USA; a dating coach.

The skill that the greatest number of you singled out when asked to identify the benefits of a philosophy degree was—not surprisingly!—the ability to think critically. I hope that each of you now reading this report will also take a moment to recollect a philosophical claim that intrigued, surprised, and even outraged, you when you were a student.

Honors/Conferences:
Each of the following students graduated with departmental honors. (They are listed in alphabetical order, with the title of their honors theses.)

Joseph McClure ("Depersonalization Disorder: Prominent Theories and a Novel Conceptualization")

Leila Pastore ("Descartes's Account of Sensation in Comments on a Certain Broadsheet")

Robert Rogers ("Science, Truth, and Internal Consistency: An Analysis of the Scientific Realism Debate")

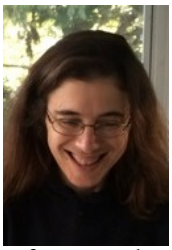
Kevin Wender ("On-Line Hate: An Evaluation of Government Intervention of Internet Hate Speech")

Leila Pastore was this year's winner of the Philosophy Department's annual Frankena Prize for excellence in the philosophy major. (Leila was also the sole recipient of the Honors Program's annual Robert Hayden Humanities Award for excellence in the humanities.)

In Winter 2013, the two winners of the Haller Term Prize (awarded for outstanding performance in an upper-level course) were: **Leila Pastore** (for a course with **Eric Swanson**) and **Shai Madjar** (for a course on Wittgenstein, with Andreas Gallus in the German Department). In the winter of 2014 **Shai**—then a first year medical student at the University of Michigan—was awarded an M.D./Ph.D. fellowship. He will return to Angell Hall in the fall of 2015 to begin his graduate studies in philosophy.

In Fall 2013, the two winners of the Haller Term Prize were **Ishan Mukharjee** (for a course with **Jim Joyce**) and **Seth Wolin** (for a course with **Allan Gibbard**).

Ryan Shield presented a paper at the Pacific University Undergraduate Philosophy Conference.



On Interpreting Quantum Theories
By Laura Ruetsche, Professor

The foundational problems surrounding ordinary quantum mechanics are compelling, and relatively simple to state. There is the problem of *non-locality*: quantum states enforce correlations between distant systems, correlations that can't be explained by a common cause propagating (as the folkloric gloss on the special theory of relativity requires causal signals to propagate) at or below the speed of light. Einstein called this "spooky action at a distance." John Bell helped teach us that spooky action at a distance is here to stay. In 1964, he

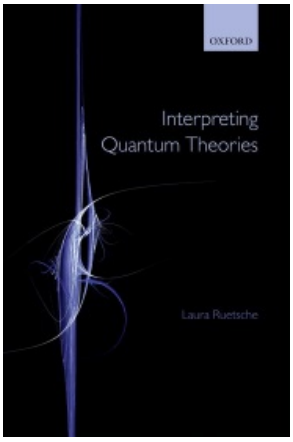
showed that any theory attributing the correlations to local common causes is committed to a set of equations (the notorious Bell Inequalities) governing a pair of two-level systems (two atoms, each with an excited and unexcited state, say), inequalities which (subsequent experiments reveal) *nature violates.*

Then there is the *measurement problem*, which can also be motivated by appeal to a pair of two-level systems. Let one be the bivalent atom just discussed, and note that ordinary quantum mechanics allows this atom to occupy an otherworldly kind of state, known as a *superposition* of its excited and unexcited states, where it is neither excited nor unexcited. (Indeed, supposing the atom's energy to be determinate commits us to empirical falsehoods.) Although superpositions are eerie, the eeriness might be tolerable, if it's containable. You and I, after all, never have much to do directly with the subatomic realm, and can, without too much cognitive dissonance, live with the failure of questions about that realm to have determinate answers.

But now suppose that you and I are experimental physicists, inclined to contrive to amplify quantum properties so as to leave detectable traces. More specifically, suppose we undertake to perform a *measurement* of the atom's energy. One strategy would be to engineer a coupling between the atom and a vial of prussic acid enclosed in a small space with a hapless cat so that, if the atom is unexcited, the vial stays intact and the cat survives, and if the atom is excited, the vial is shattered and the cat dies. Our apparatus uses the two-level system afforded by the cat's biostate to record the value (excited or not) of the two-level system afforded by the atom's energy. This is cruel. But there is another problem with it. It's that if the interaction between the atom and the cat is governed by the Schödinger equation, the fundamental dynamical law of quantum mechanics, then any measurement which is *good* insofar as it transcribes values of atom observables (excited or not) to values of cat observables (dead or not), is *bad* insofar as it leaves the cat in a superposition of biostates, if the atom starts in a superposition of energy states. To avoid empirical contradiction, we have embraced the interpretive rule that where there are superpositions, there are no matters of fact. The rule forces us to regard the cat superposed between life and death as neither alive nor dead. But for one thing, cats in such predicaments are unprecedented in our experience. And for another, if the cat is neither alive nor dead, our measurement has no outcome. The quantum measurement problem, dramatized by Schrödinger's cat, is that if quantum measurements unfold according to quantum mechanical law, then they do not eventuate in outcomes. Put baldly: if quantum mechanics were true, then we'd never be able to gather data confirming it.

The problems of non-locality and measurement are doozies, much and beautifully discussed over the last century.[1] But they have also come in for perhaps more than their share of unbeautiful discussion, discussion in which I was immersed and to which I contributed throughout the 90s. I began to wonder: is there anything *sui generis* and foundationally interesting about quantum theories that concern systems more complicated than a pair of bivalent atoms, or a bivalent atom and a bivalent cat? Examples of more complicated quantum theories include quantum field theories (or QFTs) plied by physicists seeking Nobel prizes. I wondered whether these QFTs might prompt philosophical questions of their own.

I hoped to find a short survey article orienting me toward philosophical interesting aspects of QFTs. But I searched in vain. What I found instead were articles, typically in journals of mathematical physics, of daunting technical sophistication, articles that would open by introducing without explication notions such as "*C* algebra*" and "the ultra-weak topology." After a little poking around, I realized that somehow the authors of these articles weren't being allowed by their journal editors to disclose such demystifying facts as: an algebra is simply a collection of elements along with a way of taking products and sums of those elements. This gave me an idea. It was that *I* could try to write the introductory survey article I had sought in vain.



It took me over a decade, ran to almost 400 pages, and weighed nearly 2 pounds (hardcover), but I managed it. *Interpreting Quantum Theories: the Art of the Possible* was published in 2011 by Oxford University Press. I would have preferred to call it "Interpreting QM_∞," because it focused on quantum theories of systems with infinitely many degrees of freedom, but the press wouldn't tolerate a title with a subscript in it. The book makes a case that theories of QM_∞ motivate foundational questions without direct analog in ordinary quantum mechanics, and that these questions have implications beyond philosophy of physics, implications for how we think about physical law, physical modality, and scientific realism.

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[1] *The most recent editions of some exemplars, all of which offer more rigorous and elaborate accounts of material this necessarily brief and informal exposition skates over: David Albert's Quantum Mechanics and Experience (Harvard, 2009); John Bell, The Speakable and Unspeakable in Quantum Mechanics (Cambridge, 2004); Arthur Fine, The Shaky Game: Einstein, Realism, and the Quantum Theory (Cambridge, 1996); Michael Redhead, Incompleteness, Non-Locality, and Realism: a Prolegomenon to the Philosophy of Quantum Mechanics (Oxford, 1987); David Wallace, The Emergent Multi-Verse: Quantum Theory According to the Everett Interpretation (Oxford, 2012).*

The key difference between ordinary QM and QM_∞ is that the latter, but not the former, falls outside the scope of the Stone-von Neumann theorem. This is a mathematical result, but its significance can be explicated without too much technical jargon. Theories of classical physics are different in structure from theories of quantum physics. Take the simplest case of a single particle of mass *m* confined to a line. The classical theory assigns the particle a state by equipping it with precise values for its *position* on the line and its *momentum* along the line. All of the particle's other properties are determined by its position and momentum—for instance, the particle's kinetic energy is its momentum squared, divided by twice its mass. Thus, given the particle's classical state, we can predict with certainty the values of all its other physical properties. The laws and symmetries of the theory are expressed by how these properties are inter-related, inter-relations which are captured by a gadget called the *Poisson bracket*.

By contrast, the quantum theory of our particle attributes it a state which is a *vector* in a vector space, and associates position, momentum, and other properties with gadgets called *operators* on that vector space. Typically, the state vector does not fix the values of these properties but instead offers a probability distribution over possible values. Given a pair of quantum properties, there is usually a tradeoff in the informativeness of the probability distributions the state vector defines over their possible values: the more accurately the state vector predicts the value of one property, the less accurately it predicts the value of the other. A gadget called the *commutator bracket* sets the terms of this tradeoff, and also structures the collection of quantum properties in a way that expresses the quantum theory's laws and symmetries.

As different as quantum and classical theories are, they are also similar. At their hearts lie a structuring of physical magnitudes afforded in the classical case by the Poisson bracket and in the quantum case by the commutator bracket. This inspires a recipe for generating, from a classical theory, a quantum theory that is its quantization. To follow this *Hamiltonian quantization recipe*, start with the Poisson bracket between the classical position and momentum magnitudes, and try to find a vector space on which act a pair of operators *satisfying a commutator bracket that mirrors the classical Poisson bracket.* What you are looking for is a *vector space representation* of the *canonical commutation relations* (or CCRs) defining the quantum theory you seek. Once you find a representation of the CCRs, you're off to the races: identifying the operators furnishing your representation as quantum mechanical position and momentum magnitudes, use those operators to generate a panoply of other quantum magnitudes standing to one another in functional and nomic relationships; having thus assembled your collection of quantum magnitudes, define a family of quantum states as those which assign well-behaved probabilities to possible values of those magnitudes. Recipes are only as good as their results are consistent. About this Hamiltonian quantization recipe, we might worry: is it possible to follow it starting from the same classical theory and obtain *different* quantum theories? The Stone-von Neumann theorem assures us that it is not—provided that the classical theory we start from concerns systems with finitely many degrees of freedom (finitely many particles moving in finitely many dimensions, say). No matter how different a pair of representations of the CCRs quantizing such a theory might seem, those representations will always prove to be notational variants on one another. They'll agree about what's physically possible, as well as about what structures of properties physical possibilities instantiate. If a classical theory is suitably finite, its quantization is essentially unique.

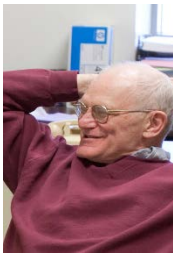
Classical field theories aren't suitably finite. The systems they address are fields, specified (in the simplest case) by assigning a number (the field's strength) to each point of space. Because there are infinitely many points of space, a field enjoys infinitely many degrees of freedom. We can still follow the Hamiltonian quantization recipe to quantize a classical field theory. The result is a quantum field theory—but not a unique one. We have moved outside the scope of the Stone-von Neumann theorem, and there are in fact infinitely many apparently physically distinct ways to construct quantizations of a given classical field theory. Different quantizations can differ on such physically basic questions as whether there are particles at all, and if there are, whether it's possible to have only finitely many of them. In the case of a theory of ordinary QM, we at least know what vector space structure that theory has. (We just don't know how to make sense of it!) In the case of a QFT, there are infinitely many rival vector space structures, keyed to infinite many distinct representations of the CCRs constituting the theory, that seem equally qualified to serve as that QFT. This circumstance calls for some reflection—about what quantum theories are, about what criteria of identity they obey, about what it really takes to be a quantum state or a quantum property . . . as well as about how to frame and adjudicate answers to questions such as the foregoing.

Two broad strategies of response to the non-uniqueness suggest themselves immediately. The *privileging strategy* is to identify the theory with a unique physically significant vector space representation of the CCRs, and consign rival representations to the dustbin of mathematical artefacts. Ascending a level of abstraction, the *abstraction strategy* identifies the theory with features all representations of the CCRs share—thereby consigning features parochial to particular representations to the dustbin of physically superfluous structure. Much of the book is devoted to examining uses to which theories of QM_∞ are put, in the hopes that a winning interpretive strategy, a strategy that makes the most sense of the most uses, will emerge. I think that what makes the book interesting (if anything does) is that these hopes are dashed. Theories of QM_∞ are used in many contexts—particle physics, cosmology, black hole thermodynamics, solid state physics, homely statistical physics—and with many aims—to model, explain, predict, and serve as launching pads for the development of future physics. An interpretive strategy that secures one aim in one context may frustrate another aim in another—or even in the same—context.

The privileging strategy has worked capitally for standard particle physics, which privileges a representation by requiring obedience to the symmetries of a particularly simple spacetime (Minkowski spacetime); the representation privileged anchors a fundamental particle notion. Still, there are aspects of standard particle physics—for instance, the "soft photons" involved in certain scattering experiments—that can't be modeled in the privileged representation, but can be modeled by discarded representations. And some explanatory agendas involving particles exceed the confines of a single privileged representation: accounts of cosmological particle creation, for instance, appeal to different (and rival) representations, privileged at different epochs in the history of the cosmos. What's more, QM_∞ abounds in *other* explanatory agendas—symmetry breaking, ferromagnetism, superconductivity, the dynamics of an expanding universe—that invest a variety of representations with physical significance. These explanations would be *hamstrung* by the privileging strategy. The abstraction strategy lends aid and comfort to some of these agendas. But not all of them. For instance, among the "surplus" properties the abstraction strategy consigns to physical irrelevance are the order properties that distinguish between the distinct phases in a phase transition, as well as the properties that enable us to makes sense of the dynamics of mean field models. There are worthwhile physical projects promoted by each strategy, worthwhile projects frustrated by each strategy, and worthwhile physical projects frustrated by both strategies.

A winning strategy for interpreting QM_∞ has failed to emerge. Does it follow that we don't understand QM_∞? On the contrary, or so I would contend. Noticing the failure—noticing that equipping a theory of QM_∞ with constitutive CCRs leaves open a host of *interpretive* questions, questions which can be and in practice are answered in different ways in different contexts of aim and application—*is* understanding QM_∞. It's also understanding something about science, something that might change the terms of the scientific realism debate. What the typical scientific realist believes when she believes a theory T is an interpretation of T—an account of what the world is like according to T. This is also an account of what worlds might be like according to T, because it is only by elaborating the space of possibilities T recognizes that we come to grips with the natures of the properties T recognizes and the way T involves those properties in laws. The reason the realist typically gives for her belief is that the best explanation of T's many and myriad successes is that the world really is the way T, under her favored interpretation, says it is. But if T is a theory that purchases different successes under different and rival interpretations (as the book claims theories of QM_∞ do), the force of this reason is attenuated. The abductive warrant for belief in T isn't concentrated on a single interpretation that makes sense of all of T's successes, but dispersed among the various interpretations that enable T to succeed in various circumstances.

The book concludes with a suggestion and a guess. The suggestion is that the sort of semantic indecision that enables QM_∞ to admit a variety of interpretations is an underappreciated scientific *virtue*: a resource of constrained adaptability that enables QM_∞ to compete in the scientific jungle red in tooth and claw. It's a resource that enables QM_∞ to meet the demands, many and varied, a living scientific theory faces. The guess—and it is really a guess, one that can be falsified by the future of science—is that because semantic indecision is a scientific resource, successor theories will share with QM_∞ the feature that no single interpretation emerges as the best. Semantic indecision isn't a passing frailty of present science but a critical strength of science as humans practice it.



What Can Be Learned from Regress Arguments

By Richmond H. Thomason, Professor

Abbreviated version of a paper found at: http://web.eecs.umich.edu/~rthomaso/documents/general/regress.pdf

Date of this version: September 9, 2013

Introduction

Regress arguments are about as old as philosophy; they appear in the fifth century BCE with Zeno of Elea. Zeno's paradoxes of motion have often been misunderstood and under-appreciated, but at their best these arguments are far from nursery puzzles. To illustrate the idea, we begin with a biological regress.

A Biological Regress

Species reproduce themselves. There must be a reason for this, and the only alternative seems to be that the parents somehow contain a pattern for their species, and that this pattern is instantiated when reproduction occurs. Now, the offspring themselves are able to reproduce, so the pattern must contain a pattern for producing the next generation.

There are two kinds of patterns. A pattern for a circle is itself a circle, but the pattern for a house is a set of drawings of a house. Suppose that reproductive patterns are of the first kind. Then the pattern for a human, for instance, will be a human. Therefore each human capable of reproducing will contain patterns of its descendants, and we have a regress.

Example 1: A Regress of Genetic Homunculi

To reproduce its species, a human must contain a smaller human, which itself must contain a smaller human, and so on ad infinitum.

This is called the preformation theory of reproduction, and the little patterns or prototypes are called homunculi. The theory accepts the infinite series that is created by the regress argument.

This theory is untenable. Animals, for instance, are made up out of cells and eventually out of organic molecules. But below a certain scale of magnitude, cells and organic molecules are impossible. This in itself rules out the preformation theory of

reproduction; we can't accept an infinite series of smaller and smaller animal prototypes.

Where did this argument go wrong? Well, the preformation theory of genetics assumes that the pattern for a deer must itself be a deer. There is an argument for this assumption: A deer couldn't grow from a drawing or a description of a deer, but a large deer can grow from a small deer. Moreover, to make a cake, say, from a recipe you need a cook to execute the instructions, as well as ingredients. But in the process of reproduction there is nothing like a cook. The problem, then, is to provide a mechanism for turning a recipe for an organism into an embryo of the same species. Molecular genetics provides the solution to this difficulty.

Cognitive Regresses

Many of the most important and illuminating regress arguments have to do with cognition.

Example 2: A Regress of Reasons

In [1], Lewis Carroll begins with the following argument from Euclid:

> (A) Things that are equal to the same are equal to each other.
> (B) The two sides of this triangle are things that are equal to the same.
> (Z) Therefore, the two sides of this triangle are equal to each other.

This argument is valid—that is, the conclusion (Z) follows from the premises (A) and (B). But, says Carroll, to actually infer the conclusion, you must accept not only the premises of the inference, but the validity of a second argument:

> (C) The argument from (A) and (B) to (Z) is valid.

If you didn't accept (C), you wouldn't be able to infer (Z) from (A) and (B), so the additional premise seems to be needed. But this process repeats: to infer (Z) from (A), (B) and (C), you need to accept the proposition that this argument is valid, and so on ad infinitum. It looks, then, as if any inference will have to require infinitely many premises.

If acceptance is something that a reasoner does, a cognitive act that is performed in the process of reasoning, we can't accept this infinite series. Each cognitive act must take an amount of time greater than some minimum quantum; so if infinitely many acts were required to draw a conclusion, it would be impossible for anyone to reason to conclusions. So this reasoning regress must stop at some point. But how can it stop?

Well, when we reason deliberately we can always pause to ask for the justification of a reasoning step we are about to make, just as we can ponder the footing on the path we are following before taking a step. But also (and most usually), we simply put our feet down unreflectively, without attending to whether each step is entirely safe. And much the same happens with reasoning; we can take a reasoning step unreflectively and without attending to the justification. The regress argument shows that steps of this kind must happen, if there is to be reasoning at all. This, of course, doesn't mean that these steps have no justification. If we have learned good reasoning habits, these steps may well be reliable and would hold up under examination.

We can clearly see the difference between the two kinds of reasoning steps in the operation of digital computers. Automatic steps are built into the circuitry and provide the underlying processes that support more complex reasoning. A high-level reasoning routine that a computer is performing might require it to find reasons for many of its inferences. But the underlying reasoning processes that support such activities are built in.

Carroll's regress shows that human reasoning—or for that matter, the reasoning of any intelligent creature—must in this respect, at least, be like that of a computer.

Cognitive regresses go back at least as far as Plato's Meno. I hope the one example I've supplied shows that these arguments, if they are well deployed, can be remarkably instructive in philosophical psychology. I plan in a longer work to discuss many more examples and do something closer to full justice to this point.

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[1] Lewis Carroll. What the tortoise said to Achilles. Mind, 4(14):278–280, 1895.

Minority Report

By David Baker, Associate Professor

Minority Report is a fascinating and frustrating movie for philosophers to watch. Fascinating because it interlaces a rollicking action yarn with challenging thought experiments in ethics and the philosophy of time; frustrating because it does everything it can to muck up those thought experiments with contradictions and easy outs. (And to this particular philosopher, also frustrating because—spoiler alert—one of the best scenes, the death of Colin Farrell's character Danny Witwer, is essentially lifted from the earlier film LA Confidential.)

Don't get me wrong, I love the movie. Not many films even approach this level of engagement with tough questions in philosophy. Let's look at one of the toughest, namely the central ethical question of the movie: is punishing pre-crime morally justifiable?

Backing up a step, the film shows us a future America in which precognitive psychics can predict future murders. The "pre-criminals" who would have committed these murders (if not for the psychics) are arrested and imprisoned—in many cases, well before they even decide to kill someone. The film's punishment for pre-crime is arguably harsher than anything we do to actual

murderers. Pre-criminals are placed in a sort of permanent nightmare, watched over by a decidedly creepy guard. (This is one of the ways in which the film mucks up the thought experiment.)

But what if the punishment for pre-crime were relaxed a bit? Suppose a pre-criminal, destined to commit a crime of passion, were simply put in jail for a few days to simmer down? Would this be a just way to treat pre-criminals?

It depends on how we should view the goal of punishment. On a broadly utilitarian approach, we punish people in order to deter crime. A system of justice in which criminals face unhappy consequences is a system that achieves the greatest good for the greatest number, since it creates an incentive to obey the law.

Imprisoning pre-criminals would clearly be just on this utilitarian approach. In any given case, the good achieved—saving the future victim's life—far outweighs the downside of restraining the pre-criminal's freedom for a short while.

Compare this with a broadly retributivist approach to punishment, according to which we punish wrongdoers because they deserve to be harmed as a just price for the harm they've done. Since pre-criminals haven't harmed anyone—not yet—even short periods of imprisonment cannot be justified on retributive grounds. So if we clean it up a bit, the premise of Minority Report does a wonderful job of highlighting the differences between these views about punishment.

What about guilt—the emotion, not the legal status? Suppose you learned you were a pre-criminal. Should you feel guilty? You've learned something unflattering about yourself: you have a flaw of character which makes you capable of murder. But you haven't actually done anything wrong yet! Is guilt a matter of regretting bad acts we've actually committed, or is it just a matter of recognizing and lamenting our moral flaws?

Minority Report has lots more to offer the philosophically-minded viewer. I haven't even touched the questions the movie raises about free will and the nature of time. I show it to my students whenever I teach science fiction and philosophy, and I'd encourage anyone with a philosophy background to check it out.

An Update on the Weinberg Institute for Cognitive Science

By Chandra Sripada, Assistant Professor

Cognitive science is an exciting interdisciplinary approach to studying mind and brain. Researchers at the University of Michigan played a leading role in the emergence of cognitive science, made many important contributions to the field, and there continues to be a thriving community of cognitive scientists at the University. There has been a critical piece missing however: There hasn't been a formal "home" for cognitive science at the University to coordinate teaching and research activities and facilitate the cross-departmental exchange of ideas.

That all changed in April 2014 with the inauguration of the Weinberg Institute for Cognitive Science, which was made possible by a generous gift from philanthropist and longtime friend of the Department of Philosophy, Marshall Weinberg (University of Michigan, Philosophy, 1950). The Departments of Philosophy, Linguistics, and Psychology are co-sponsors of the Institute, and a number of new developments are underway or in the works—a new undergraduate concentration, a graduate certificate, scholarships, speaker series, symposia, and much more. Before I get to all that, let me say a bit about what cognitive science is and why it is such an important field of study.

The founding idea of cognitive science is that minds are a kind of computational system, and to make progress in understanding this system, we need to consider multiple levels of explanation simultaneously. Consider a simple computational system such as a pocket calculator. To understand how a calculator works, we need to know more than just its physical makeup: the arrangement of its parts or the flow of electrical pulses through its chips. We also need to know what computations the calculator performs. In particular, we need to know the "code" in which the calculator represents numbers and the operations it performs on these numerical representations in computing functions such as addition or division. Without the computational level of explanation, our knowledge of the system is deeply impoverished; with it, we achieve a satisfying understanding of what the system is *really doing*.

Cognitive science says the same idea applies to the mind/brain, the computational system in our heads. To understand how the mind/brain works, we need to know more than just its neural make-up or the flow or electrical pulses through its axons. We need to also know what information is being represented in these neural ensembles, what are the computational procedures that are being "run" on the neural hardware. Because it requires studying mental phenomena at multiple levels of explanation, cognitive science is inherently an interdisciplinary enterprise. Moreover, the field shows how disciplines such a neurobiology and psychology (as well as linguistics, philosophy, and computer science) that usually operate independently can be brought

together into a common theoretical framework to achieve a deep understanding of mind, brain, and behavior.

Cognitive scientists are today at the forefront in investigating a slew of important topics—perception, language, reasoning, decision-making, moral judgment, and emotion, among others. Researchers at the University of Michigan—John Swets, Amos Tversky, Ed Smith, David Meyer, Susan Gelman, John Laird, Phoebe Ellsworth, to name just a few—have been, or are, among the leaders of the discipline. Michigan's Department of Philosophy, too, has long had deep connections with cognitive science. Some faculty, for example **Allan Gibbard**, **Daniel Jacobson**, **Sarah Moss**, **Peter Railton**, **Eric Swanson**, and **Brian Weatherson**, are interested in some of the specific topic areas illuminated by cognitive science—topics such as moral judgment, emotion, reasoning, and language. Others, for example **Eric Lormand**, **Rich Thomason**, and **David Manley**, are engaged with questions about the nature and limits of the computational model of mind, questions such as, Can a computer be genuinely intelligent or creative? Can it be conscious?

Given all this existing interest and activity in cognitive science at Michigan, the founding of the Weinberg Institute for Cognitive Science represents an opportunity to establish a new level of leadership in the field. Our hope is that the Institute will serve as an intellectual hub for the whole cognitive science community at Michigan—a place to organize and coordinate activities across the partnering departments, as well as other units in the University (for example, the School of Electrical Engineering and Computer Science). Towards this end, there are many exciting developments afoot. I'd like to highlight a few.

In February 2014, a new multidisciplinary cognitive science undergraduate major was approved and begun (there are already 50 students declared). The major is organized into four tracks: language, decision, philosophy, and computation. In each of the tracks, students study the target phenomena across multiple levels of analysis. For example, in the decision track, students study decision-making from the perspectives of neurobiology, psychology, artificial intelligence, philosophy, and economics. In the philosophy track, a set of cross-disciplinary coursework has been designed to help students understand and grapple with philosophical issues raised by language, logic, artificial intelligence, and neuroscience. There is also a new gateway course, CogSci 200, for the concentration, which is co-taught every semester by two professors drawn from Philosophy, Linguistics, and Psychology. This course, which regularly fills to capacity and has received excellent student reviews, offers a broad overview of the field of cognitive science. It is required for majors, but it will certainly be of interest to other students as well.

Another important development is that a new graduate degree is currently in the works. In the near future, we expect that graduate students in philosophy, linguistics, and psychology (and other disciplines) will be able to complete coursework towards a "Certificate in Cognitive Science." This might be useful, for example, for a philosophy graduate student seeking to establish an Area of Competence (AOC) or an Area of Specialization (AOS) in cognitive science itself or in the related areas of philosophy of mind, philosophy of psychology, or moral psychology. Also, graduate students in philosophy will now have the opportunity to pursue Graduate Student Instructorships (GSIs) in cognitive science courses. **Sara Aronowitz** is a GSI for CogSci 200 for Fall 2014. We are hoping others will follow in the trail she blazes.

We anticipate other initiatives. Because these are still the subjects of ongoing discussions, I will have to be a bit vague. One goal is to establish a regular speaker series for cognitive science. Figures of national prominence would be brought to Michigan for lectures as well as meetings with students and faculty. This speaker series would be coordinated with the Marshall Weinberg Symposium in Cognitive Science, which is a one-day workshop held every March (since 2008) that brings together the leaders in the field to discuss and debate a significant, timely, and often controversial, topic of research. Additionally, it would be wonderful to be able to host visiting professors for an entire term, as this would allow even more extensive cross-fertilization of ideas. Also planned are various mechanisms to offer funding to undergraduate and graduate students. A top priority is to provide scholarships for students who show exceptional potential in cognitive science—this would provide both financial support as well as recognition. Additional funding could be made available to support student research, travel, and conference presentations.

Clearly, there are a lot of ideas being considered. But we can't do this all alone, and we definitely welcome your input. If people have ideas about any aspect of the new Weinberg Institute for Cognitive Science—teaching, courses, degrees, speakers, scholarships, or whatever—we would be delighted if you would share (email cogsciprog@umich.edu). It is not only the research in cognitive science that should be collaborative!

Michigan Minorities and Philosophy (MAP) Chapter

By Robin Zheng

Minorities and Philosophy (MAP) is a newly founded, graduate student-led network of philosophy departments devoted to improving the status and experience of minorities in the profession. It now boasts 30+ chapters across the U.S., U.K., Canada, and Australia. Our Michigan chapter was the very first department to sign up (not counting the founders' home institutions at Yale and Princeton). Each MAP chapter functions autonomously, making its own decisions about what sorts of events—talks, reading groups, workshops, trainings, informal social events, mentoring—are best suited to supporting diversity, both demographic and intellectual, in the Department. The MAP network provides a centralized platform for this: a calendar and archive of events, lists of contacts and resources, a newsletter,

and annual video-conferences and reports for sharing strategies and documenting what worked. One innovative, new initiative developed by MAP is a "micro-mentoring" program, which consists of a list of supportive faculty (among whom Michigan faculty and graduate students are well represented!) who have volunteered to connect over email or Skype with students seeking mentorship that may not be available to them at their own institutions.

At Michigan, the inaugural year of the MAP chapter was focused on establishing a speaker series. Our first speaker was Timothy McKay, a physics professor at the University of Michigan who also serves on the committee on Strategies and Tactics for Recruiting to Improve Diversity and Excellence (STRIDE), and is the chair of the Provost's Task Force on Learning Analytics. Professor McKay spoke on "Women in STEM and Philosophy: Data and Models Inform Our Response," in which he described ways to use institutional warehouses of data—for example collected by CTools and the registrar's office—to better understand how to improve the retention of historically underrepresented undergraduate students. Our department subsequently sent a team of graduate students (**Sara Aronowitz** and **Robin Zheng**) to the Learning Analytics Fellows Program, with the project of analyzing undergraduate survey data collected by **Sarah Buss** during her tenure as Director of Undergraduate Studies. Our second speaker was Kristie Dotson, a philosophy professor at Michigan State University. Professor Dotson gave a lecture on "What Are We Doing Here? Considering Professional Philosophical Praxis" in which she argued for greater recognition of the already existing intellectual diversity and pluralistic nature of professional philosophy.

By centralizing and organizing the wide range of efforts already underway in the discipline, MAP lends visibility to minority issues by demonstrating a unified call for and commitment to widespread institutional change. For more information, please visit the Michigan chapter webpage at http://www.lsa.umich.edu/philosophy/events/minoritiesandphilosophymap and the MAP website at http://www.mapforthegap.com/.

RECENT GRADUATES

Dmitri Gallow defended his dissertation—*The Emergence of Causation*—under the supervision of James Joyce. Dmitri disputes both tenets of causal fundamentalism and takes up the task of constructing an anti-fundamentalist theory of causation. Dmitri has accepted a postdoctoral fellowship at New York University.

Warren Herold defended his dissertation—*Perspective Taking and Moral Evaluation: Themes from Adam Smith*—under the supervision of Elizabeth Anderson. Warren argues that Adam Smith's account of imaginative perspective taking and moral evaluation supports a non-utilitarian contractualist moral theory. Warren has accepted a tenure-track position at the University of Arkansas.

Ira Lindsay defended his dissertation—*A Humean Theory of Property Rights*—under the supervision of Peter Railton. Ira defends a Humean theory of property rights against its neo-Lockean and 'resource egalitarian' rivals. Ira has accepted a postdoctoral fellowship at Dartmouth College.

Stephen Nayak-Young defended his dissertation—*Towards a Just Work Law*—under the supervision of Elizabeth Anderson. Stephen examines three inter-related papers, all of which explore the nature and purpose of work law with the aim of identifying aspects of such laws that are more and less just. Stephen has accepted a postdoctoral fellowship at University of California, Los Angeles.

Bryan Parkhurst defended his dissertation—*Sound's Arguments: Philosophical Encounters with Music Theory*—under the supervision of Kendall Walton and Ramon Satyendra (School of Music). Bryan seeks to understand what is at stake in the project of music analysis writ large and what is at stake in the project of Schenkerian musical analysis in particular. Bryan has accepted a postdoctoral fellowship at Columbia University.

Jonathan Shaheen defended his dissertation—*Meaning and Explanation*—under the supervision of David Manley. Jonathan investigates the semantic contribution of the individual words 'why' and 'because,' attempting to get clear on whether and how some of our central explanatory terminology gets disambiguated, and thereby to make some progress on a theory of 'why'-questions that can tell us something substantive about explanation. Jonathan has accepted a postdoctoral fellowship at Oberlin College.

DEPARTMENT FACULTY 2014-2015

Elizabeth Anderson - Department Chair, John Dewey Distinguished University Professor, and Arthur F. Thurnau Professor; Moral and Political Philosophy, Feminist Theory, Philosophy of Social Science

David Baker - Associate Professor and Denise Research Fellow; Philosophy of Physics, Philosophy of Science

Gordon Belot - Professor and James B. and Grace J. Nelson Fellow; Philosophy of Physics, Philosophy of Science

Sarah Buss - Professor and James B. and Grace J. Nelson Fellow; Ethics, Action Theory, Moral Psychology

Victor Caston - Professor and James B. and Grace J. Nelson Fellow; Ancient Philosophy, Medieval Philosophy, Austrian Philosophy, Philosophy of Mind, Metaphysics

Derrick Darby - Professor and James B. and Grace J. Nelson Fellow; Social and Political Philosophy, Race, Inequality, Philosophy of Law

Allan Gibbard - Richard B. Brandt Distinguished University Professor; Ethics, Social Choice Theory, Decision Theory, Metaphysics, Philosophy of Language

Scott Hershovitz - Professor (Law); Philosophy of Law, Ethics, Political Philosophy

Daniel Herwitz - Frederick G. L. Huetwell Professor; Aesthetics, Film, Philosophical Essay, Transitional Societies

Daniel Jacobson - Professor and James B. and Grace J. Nelson Fellow; Ethics, Moral Psychology, Aesthetics, J.S. Mill

James Joyce - Cooper Harold Langford Collegiate Professor; Decision Theory, Epistemology, Philosophy of Science

Ezra Keshet - Assistant Professor (Linguistics); Semantics

Maria Lasonen-Aarnio - Assistant Professor and Denise Research Fellow; Epistemology

Mika Lavaque-Manty - Arthur F. Thurnau Associate Professor (Political Science); Political Theory, Political Action and Agency, Liberal and Democratic Theory

Louis Loeb - Arthur F. Thurnau Professor; History of Modern Philosophy

Eric Lormand - Associate Professor and James B. and Grace J. Nelson Fellow; Philosophy of Mind, Philosophy of Cognitive Science, Language

Ishani Maitra - Associate Professor and James B. and Grace J. Nelson Fellow; Philosophy of Language, Feminist Philosophy, Philosophy of Law

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