Workshop on bounded rationality

Robbins Library

Emerson Hall

Harvard University

October 18-20, 2019

1   Schedule

5:45-6:00PM	Opening remarks **Speaker:** Ned Hall (Harvard)
6:00PM	Dinner

Saturday, October 19

8:30-9:00AM	Breakfast
9:00AM-10:30AM	**Speaker:** David Christensen (Brown) **Paper:** Akratic (epistemic) modesty **Comments:** Julia Staffel (University of Colorado Boulder) **Chair:** Branden Fitelson (Northeastern)
10:30-10:45AM	Coffee
10:45AM-12:15PM	**Speaker:** Thomas Icard (Stanford) **Paper:** Boundedly rational randomization **Comments:** Snow Zhang (Princeton) **Chair:** Dan Baras (Hebrew University of Jerusalem)
12:15-1:30PM	Lunch
1:30-3:00PM	**Speakers:** David Builes (MIT), Sophie Horowitz (UMass Amherst), Miriam Schoenfield (MIT) **Paper:** Dilating and contracting arbitrarily **Comments:** Christopher Meacham (UMass Amherst) **Chair:** Alejandro Pérez Carballo (UMass Amherst)
3:00-3:15PM	Coffee
3:15-4:45PM	**Speaker:** David Thorstad (Harvard) **Paper:** Norms of inquiry **Comments:** Kevin Dorst (Oxford, Pittsburgh) **Chair:** Ned Hall (Harvard)
4:45-5:00PM	Coffee

Saturday, October 19	
5:00-6:30PM	**Speaker:** Richard Pettigrew (Bristol) **Paper:** Accuracy-first epistemology and the norms of bounded rationality **Comments:** Branden Fitelson (Northeastern) **Chair:** Silvan Wittwer (Harvard)
6:30PM	Dinner
Sunday, October 20	
8:30-9:00AM	Breakfast
9:00AM-10:30AM	**Speaker:** Jennifer Carr (UCSD) **Paper:** Ideal epistemology for dummies **Comments:** Jennifer Morton (CCNY, CUNY) **Chair:** Alex von Stein (Arizona)
10:30-10:45AM	Coffee
10:45AM-11:30AM	Roundtable discussion

2 Abstracts

David Builes, Sophie Horowitz, and Miriam Schoenfield, "Dilating and contracting arbitrarily"

We give an accuracy-based argument for the conclusion that it's rationally permissible to "contract" (move from an imprecise to a precise credence) but not permissible to "dilate" (move from precise to imprecise) with no new evidence.

Jennifer Carr, "Ideal epistemology for dummies"

Ideal epistemologists are concerned with questions about what perfectly rational, cognitively idealized, computationally unlimited fictional believers would believe. Nonideal epistemologists are concerned with questions about epistemic norms that are satisfiable by most humans much of the time. I aim to offer a unified semantics for the ideal and nonideal epistemic "ought", "rational", and so on. On this semantics, nonideal and ideal epistemic evaluations that superficially appear incompatible — for example, that we are or aren't mostly rational — are shown to be compatible. The fundamental difference between ideal and nonideal epistemology is that only the nonideal epistemic "ought" implies any substantive "can."

I argue that only ideal epistemic evaluations are, in an important sense, normatively robust: they are non-conventional and not seriously context-sensitive. Preserving substantive "ought"-implies-"can" principles leaves nonideal epistemic evaluations normatively non-robust: they exhibit a high degree of both conventionality and context-sensitivity. For this reason, nonideal epistemic evaluations won't characterize a cohesive notion of epistemic rationality. Nonideal epistemic rationality depends not merely on what's epistemically valuable and how to effectively pursue it, but also on modally contingent epistemic conventions and contextually contingent assumed constraints on what we "can" do. If we want a normatively roust theory of epistemic rationality, ideal epistemology is the only game in town.

David Christensen, "Akratic (epistemic) modesty"

We often get evidence of our own cognitive limitations — evidence suggesting that some of our thinking may be unreliable. Attractive views about how such evidence is rationally accommodated tend to be "modest" in a particular sense: they say that there are circumstances in which it is rational to doubt their correctness. But modest views have been criticized as self-undermining. The standard Self-Defeat Objections depend on principles forbidding epistemically akratic combinations of belief (e.g., being highly confident in some claim while also being confident that only much lower confidence would be rational). However, there are good reasons to doubt these principles — even New Rational Reflection, which was designed to allow for some rational doubts about one's rationality. On the other hand, if we construct a Self-Defeat Objection without relying on anti-akratic principles, modest views turn out not to undermine themselves after all. In the end, modesty should not be seen as a defect in a theory of rational belief.

Thomas Icard, "Boundedly rational randomization"

Randomized acts play a marginal role in traditional Bayesian decision theory, essentially only one of tie-breaking. Meanwhile, rationales for randomized decisions have been offered in a number of areas, including game theory, experimental design, and machine learning. A common and plausible way of accommodating some of these ideas from a Bayesian perspective is by appeal to a decision maker's bounded computational resources. Making this suggestion precise, systematic, and compelling, however, is suprisingly difficult. The aim of this talk is to establish a deep tradeoff between randomness and memory, and to show that this by itself results in widespread rationalization of random behavior.

Richard Pettigrew, "Accuracy-first epistemology and the norms of bounded rationality"

Accuracy-first epistemology takes the sole fundamental source of epistemic value for a belief or a credence to be its accuracy. It then seeks to derive the norms of epistemic rationality by applying the techniques of decision theory to that account of value. So far, however, it has been applied almost exclusively in the domain of agents who are not bounded in their representational or computational abilities. In this paper, we explore what can be done when we do impose such bounds. Do the arguments still go through? What norms can we then derive? We show how base rate neglect can be understood as an application of satisficing

in this framework; we give a version of the Bayesian norms for agents who are not logically omniscient; and we ask how incoherent agents should update their beliefs in response to new evidence.

David Thorstad, "Norms of inquiry"

One of the most recognizable moves in theorizing about bounded rationality is the turn from substantive to procedural rationality. Because resource- and ability-bounds are felt most strongly at the level of rational inquiry, the bounded tradition de-emphasizes the substantive questions of what agents should do, believe, or prefer in favor of the procedural question of how agents should inquire. Recent work in the epistemology of inquiry reveals a gap to be filled: although we have many accounts of rational belief, action, and preference, there are no general accounts of rational inquiry. My project in this paper is to develop an account of rational inquiry in response to three puzzles. The first puzzle is explaining norms of clutter avoidance. The second puzzle is determining the normative role of friendship in inquiry. The third puzzle is accounting for the normative importance of resource- and ability-bounds.