## **RESEARCH STATEMENT** Gabriel Oak Rabin

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I am an M+E generalist who works on issues located solely within as well as at the intersections of philosophy of mind, metaphysics, philosophy of mathematics, and philosophy of language. Being a philosophical generalist pays off: concepts from one domain apply in others. In the big picture, one can think of my work as Tyler Burge style representational externalism meets David Chalmers inspired philosophy of consciousness. With a sprinkle of Kit Fine-ish metaphysics and formal philosophy added for flavor.

My work revolves around three central themes. The first is metaphysical rationalism, which involves optimism about the power and scope of a priori knowledge, in particular our ability to understand the metaphysical world. This has led me to defend roughly rationalist accounts of modality, grounding, and mathematics. The second theme is semantic externalism, according to which the nature of a representation is determined by factors external to the representational system. The third theme is the importance of the notion of *concept mastery* in philosophy. A thinker has mastery of a concept when they fully understand that concept, and do not *incompletely understand* it, as Burge's arthritisman incompletely understands the concept ARTHRITIS. It is my view that both the nature and importance of the phenomenon has been misunderstood, and should not be labeled as "mere social deference" and ignored as a deviant phenomenon.

These themes come together in my work in the philosophy of mind. Many arguments in metaphysics of mind revolve around a strategy in which one argues from premises about representations (concepts, what Mary could know, conceivability, which propositions a priori entail what) to metaphysical conclusions, such as the truth of dualism. One must be careful in these inferences from representations to the things themselves. My papers "Concept Mastery and the Knowledge Argument" (*Philosophical Studies*, 2011), "Mastering Mary" (*American Philosophical Quarterly*, 2019), "Modal Rationalism and the Demonstrative Reply to the Scrutability Argument Against Physicalism" (*Synthese*, 2019), and "Grounding the Gaps or Bumping the Rug? On Explanatory Gaps and Metaphysical Methodology" (*Journal of Consciousness Studies* 2019) all, broadly speaking, explore what the rules of the game must be if one is to make these types of inferences.

Three of my papers revolve around the notion of *concept mastery*. A thinker has mastery of a concept when they fully understand that concept. "Toward a Theory of Concept Mastery: The Recognition View" (*Erkenntnis*, 2018) argues against a variety of existing accounts of concept mastery and proposes my own positive view. Two other papers address the importance of concept mastery for theorizing about the knowledge argument. "Conceptual Mastery and the Knowledge Argument" (*Philosophical Studies*, 2011) argues that concept mastery is vital role for understanding the knowledge argument and its prospects. "Mastering Mary" (*American Philosophical Quarterly*, 2019) is a sequel that elaborates on my earlier work and incorporates some of the literature replying to my *Phil Studies* paper.

My work in philosophy of mathematics and formal philosophy tends to mix philosophy of mathematics with problems in other areas of philosophy. "Well-Founding Grounding Grounding" (*Journal of Philosophical Logic* 2015) uses graph theory and the mathematics of infinity to clarify topics in metaphysics surrounding what it means for a grounding structure to be "well-founded". It uses a precise formal framework to prove the somewhat surprising result that a fact could be well-founded in the sense of "having a foundation" while still admitting of infinite chains of descent without lower bound. "Full-Blooded Reference" (*Philosophia Mathematica* 2009) develops a semantic framework for intrepreting mathematical statements within a Full-Blooded Platonist theory of mathematical objects. "Fundamentality Physicalism" (*Inquiry* 2019) explores various proposals for how a dependence, fundamentality, and/or grounding centered formulation of physicalism can cope with mathematical facts. An in-progress paper titled "The Structure of Analog Representation" uses formal tools to develop a structural account of the nature of analog (as opposed to symbolic) representation.

In metaphysics proper, I have several papers addressing the notion of ground and its applications. "Well-Founding Grounding Grounding" (*Journal of Philosophical Logic* 2015) is a formal paper that clarifies what it means for a grounding structure to be "well-founded". "Going Non-Standard on the Standard Problem" (currently R+R) uses ground to offer an original "metaphysical externalist" solution to the problem of coincident objects (e.g. the statue and the clay). "Grounding Orthodoxy and the Layered Conception" (OUP, 2018) explains how unorthodox views about ground that permit reflexive, symmetric, and/or non-transitive ground can and can't make good on a promising application of ground: the layered conception of reality.

Three other papers apply the notion of ground and/or its cognate fundamentality in the philosophy of mind. "Fundamentality Physicalism" (*Inquiry*, 2019) offers my preferred formulation of physicalism: fundamentality physicalism. It presents and copes with the most serious problem for a fundamentality-oriented conception of physicalism: apparent counterexample from abstract domains like mathematics. "Physicalism, the Intelligibility Constraint, and the Myth of Structure and Function" and "Grounding the Gaps or Bumping the Rug" address how to theorize about ground and fundamentality in the context of thinking about consciousness and the prospects of physicalism. I am also under contract with Oxford University Press to produce an edited volume titled *Grounding and Consciousness*.

"Use Your Illusion: Spatial Functionalism, Vision Science, and the Prospects for Anti-Skepticism" (*Analytic Philosophy*, 2019) combines empirical philosophy of psychology with my interests in meta-semantics and philosophy of consciousness. Continuing the meta-semantic theme, two philosophy of language papers distance me from the semantically internalist leanings of my rationalist influences (Chalmers, David Lewis, Frank Jackson) and explore the form of semantic externalism I prefer. "The Meta-Semantic Dilemma for Two-Dimensional Semantics" (under review) is my take-down paper for Epistemic Two-Dimensional Semantics, as developed by David Chalmers and Frank Jackson. "How To Twin-Earth a Phenomenal Concept" (currently R+R at a top journal) investigates the idea of semantic neutrality/stability, which plays a prominent role in the semantic, epistemic, and metaphysical theories of George Bealer and David Chalmers. A term or concept is semantically neutral if it cannot be given a "twin-earth" case, like Putnam's  $H_2O/XYZ$  case. I argue against the neutrality of phenomenal

concepts, which to my knowledge has never been challenged. I use this claim to rebut conceivability arguments, offer a hypothesis that connects demonstratives and failure of semantic neutrality, and use this hypothesis to predict the failure of neutrality for a wide variety of terms, extending the realm of the semantically non-neutral far beyond the well-trodden case of names and natural kind terms. The theme of connecting demonstratives and consciousness continues in "Modal Rationalism and the Demonstrative Reply to the Scrutability Argument Against Physicalism" (*Synthese*, 2019), which discusses the modal rationalism that underlies much anti-physicalist thinking. I use externalist meta-semantic considerations involving a connection between demonstratives and phenomenal concepts to offer a milder, physicalistically acceptable form of modal rationalism. On this view, a fundamental connection between demonstratives and our representations for consciousness, rather than the existence of mentality in the bedrock of reality, is responsible for the explanatory gap between the physical and consciousness.

In the future, I plan to continue and expand upon all these research themes. I have recently branched out into research on analog and iconic representation. (Iconic representations include pictures, maps, and perceptual states, and contrast with symbolic representations, including language). I recently taught a graduate seminar at NYU New York on this topic and am currently drafting two papers on the subject, including one relating iconic to conscious representation. I will spend January 2020 conducting a research fellowship on iconic representation at Dartmouth College. I also received a grant from the NYU Abu Dhabi Institute to fund an international workshop on perception and iconic representation, which I held in January 2019. I have also been successful in receiving grants from ConceptLab at the University of Oslo and from the Fulbright Foundation. I hope to continue to working on and applying for grants on this topic, as well as my other areas of research.