

## Bryant Research Statement

My central topic of research is the epistemology and methodology of metaphysics, particularly the relationship between metaphysics and science. My research asks: *What relationship should metaphysics stand in to science? Why should metaphysics be responsive to science? When and how can science inform metaphysics? Which features of science give it epistemic authority over metaphysics?* In response to those questions, I develop and defend a program for the naturalization of metaphysics. My interest in naturalism has also lead me to engage with the work of Quine — particularly his philosophy of logic — and to grapple with issues pertaining to scientific realism, such as the base-rate fallacy and the viability of ontic structural realism.

### Dissertation

Analytic metaphysics has come under attack in recent years and, as a result, philosophers are looking with renewed interest to the epistemic and methodological credentials of the discipline. Critics of analytic metaphysics have renewed Quine's call for the *methodological naturalization* of metaphysics — that is, for metaphysics to be held accountable to science in some fashion. While I am extremely sympathetic to these calls, I argue that they've been badly articulated and defended. In particular, I argue that proponents of the naturalization of metaphysics fail to show why science — in particular, physics — should be assigned 'epistemic supremacy'. Moreover, the literature fails to draw a clear and principled distinction between the metaphysics it condemns and the scientific or science-based inquiries it praises. Further, I argue that some prominent naturalization programs fail to reflect the complex and disunified state of science.

My dissertation contributes much-needed clarification of, and motivation for, the naturalist's view. I spell out in detail what the naturalization of metaphysics should consist in and I make plain the epistemic reasons why naturalized metaphysics is preferable to its non-naturalized rivals. In particular, I claim that a *scientifically responsible metaphysics* conscientiously engages with the data, theories, theoretical interpretations, and practices of the current sciences, and I detail a broad array of possible modes of engagement. I argue that scientifically responsible metaphysics is better constrained and supported than its non-naturalized rivals and therefore can better claim to produce justified metaphysical theories.

## Published Papers

In my publication in *Synthese*, I argue that much current metaphysical practice constitutes what I call *free range metaphysics*. Free range metaphysics is constrained only by logical, aesthetic, and psychological demands, such as demands for consistency, simplicity, intuitive plausibility, and explanatory power. I argue that free range metaphysics does not produce justified theories of reality, because the constraints on its content are too weak and fail to secure epistemic warrant. However, I also consider some of its pragmatic collateral benefits — benefits such as increased standards of clarity, useful conceptual tools, and incubated scientific theories. I conclude that the discipline of metaphysics needs to be less deluded about its epistemic credentials.

My work on naturalizing metaphysics has also lead me to research Quine’s epistemology — its naturalism and holism — and his resultant philosophy of logic. My *Australasian Journal of Logic* article grapples with the tension in Quine’s work regarding the rational revisability of logic. On the one hand, Quine’s universal revisability thesis clearly commits him to the rational revisability of logic. On the other hand, it’s not clear how revision can get off the ground, since the translation argument and the ‘change of logic, change of subject’ argument appear to rule out successful communication of non-classical logical principles. In this article, I develop a Neo-Quinean view that brings into alignment the universal revisability thesis, translation argument, and ‘change of logic, change of subject’ argument. On that view, everything is revisable *in some manner or other* — it’s just that the logical principles that laypeople find (actually or potentially) obvious can’t be revised quickly and all at once. Since, in Quine’s view, what people find obvious resists change, changes to laymen’s logic must be gradual.

## Papers in Development

I have several research papers in development, three of which I’ll describe here. The first paper examines the naturalistic credentials of the *grounding* (metaphysical dependence) literature. One might think that the subject-matter of the grounding literature is necessarily free range, because paradigm examples of grounding relations posit spooky abstracta and because grounding relations seem to compose a layer of structure over and above scientifically-discoverable structure. However, I examine the grounding literature with an eye to its underlying methods and find *both* free range and scientifically responsible aspects. On that basis, I synthesize a number of recommendations

for how theorists of ground can fruitfully engage science. This paper is currently under review.

If the epistemic credentials of naturalized metaphysics hang on the epistemic credentials of science, then we need to examine the latter. So in addition to my research on the relation between science and metaphysics, some of my research concerns science itself — scientific realism, in particular. On the subject of scientific realism, I have been gripped by recent work on the base-rate fallacy — an error in probabilistic reasoning that threatens to fatally undermine the no-miracles argument and the pessimistic meta-induction. In essence, the error is to ignore the prior probability (probability not conditional on any particular evidence) of the relevant hypothesis. The base-rate fallacy is *disastrous* to probabilistic reasoning. My paper on this subject rejects several realist defences of the no-miracles argument against accusations of base-rate fallaciousness. The no-miracles argument does, I argue, commit the base-rate fallacy and should be abandoned.

Some advocates of naturalized metaphysics argue that physics motivates a particular variety of realism: *ontic structural realism* (OSR), according to which science acquaints us with the underlying ontological structure of the world. Since science makes OSR a live theoretical option, I am interested in its tenability. One of my papers, presently under review, considers whether versions of OSR that posit objectless ontologies can accommodate causation. Some critics argue that objectless structures don't have the sorts of properties (first-order properties) required to enable causal relations. I argue that taking structures to be concrete and understanding objects, properties, and events in structural terms allows us to square causation with OSR. The upshot is that advocates of OSR can comfortably appeal to causal explanations.

## **Future Directions**

In future research on the naturalization of metaphysics, I plan to attend in greater detail to the place of scientific practice in a naturalized metaphysics. I plan to flesh out and give specific examples of modes of metaphysical engagement with scientific practice, such as putting the categories and conceptual frameworks used fruitfully in science to metaphysical work. I also plan to do first-order metaphysics on modality and grounding to demonstrate what my conception of scientifically responsible metaphysics looks like concretely. Furthermore, while I make my program of naturalization sensitive to

the *possibility* of scientific pluralism, I intend to investigate more fully what the *truth* of scientific pluralism would mean for naturalized metaphysics — for instance, whether some form of metaphysical pluralism necessarily follows — as well as the special motivations for naturalism that might emerge from an anti-realist point of view.

Moreover, in my exploration of Quine’s broader system of thought, I have been compelled by his holism, on the one hand, but unwilling to accept the radical epistemological and methodological naturalism it implies, on the other. That is, while I advocate the naturalization of metaphysics, I don’t reject *a priori* knowledge and justification out of hand, nor do I wish to advocate the naturalization of *all* forms of inquiry. In future work, I aim to develop a strategy to avoid the slippery slope from epistemic holism to radical naturalism — a way of accepting holism about justification, while adopting moderate, domain-specific forms of naturalism.

Finally, in my dissertation, I argue that a statistically-motivated, Bayesian form of Ockham’s Razor helps motivate a naturalized metaphysics over a non-naturalized one. However, over the course of my research, I was struck by certain biologically motivated criticisms of Ockham’s Razor and other epistemic norms. In future research, I will examine the tenability of Ockham’s Razor and other theory-governing norms in certain scientific domains, and consider what the results might mean for scientifically responsible metaphysics. I suspect that there’s no single epistemology to read off of science, but a variety of context-sensitive epistemic practices.