
Research Statement

Overview

Most of my research is centered around consciousness, but I'm interested in a wide range of issues in contemporary analytic philosophy.

My core research project is on *(a)* the structure of consciousness. Alongside that, I also have research interests concerning *(b)* the ethics of consciousness, *(c)* analog and iconic representation, *(d)* perception and introspection, and *(e)* the metaphysics of dimensions, locations, structure, and infinite sums.

I believe one of my strengths as a philosopher is the variety of my interests. I strive to be both a specialist (through my focus on the structure of consciousness) and a generalist (by following my interests where they lead). My main area of specialization is the philosophy of mind. But I also have substantive interests in ethics, metaphysics, epistemology, philosophy of science, philosophy of language, and cognitive science.

In what follows, I first describe my core research on the **structure of consciousness**. Then I describe my other work, grouped under the areas of **ethics**, **mind + language**, and **metaphysics**. Published articles and complete manuscripts are linked via blue paper titles; works in progress are listed in normal black text.

The Structure of Consciousness

My research focuses on how various structural concepts—such as DEGREES, DIMENSIONS, PARTS, WHOLES, CONTINUITY, DISCRETENESS, COMPOSITIONALITY, and ISOMORPHISM—can be applied to conscious experiences. By doing so, I aim to make progress on the following sorts of first-order questions:

- Does consciousness come in degrees?
- What are the dimensions of consciousness?
- Are there atomic elements of consciousness?
- Are conscious experiences continuous or discrete?
- Are conscious experiences compositionally structured?
- Which mathematical structures should we use to model conscious experiences?

These sorts of questions have become increasingly important in contemporary consciousness research. But while it's common ground that conscious experiences are richly structured, there's currently no common framework for

evaluating hypotheses and theories about the structures of conscious experiences. My research aims to build that common framework.

A key inspiration for my research comes from a speculative passage at the end of “What is it like to be a bat?” In the passage, Nagel asks whether it might be possible to develop an “objective phenomenology,” or a way of describing conscious experiences that’s understandable even by those unable to have had the experience under question. In other words, is there a way for even humans to understand what bat experiences are like? In “[Objective Phenomenology](#)” (*Erkenntnis*, 2022), I argue that purely structural facts about conscious experiences—such as the kinds of facts that can be captured through mathematical models—are objective phenomenal facts. If we can figure out the structure of bat phenomenology, then—on my view—we can get a partial grasp of what it’s like to be a bat.

Some of my work aims to advance this project by focusing on how we can use mathematical tools to model various structural features of conscious experiences. In “[Modeling Mental Qualities](#)” (*The Philosophical Review*, 2021), I develop a mathematical framework for modeling the qualities of conscious experiences that enables competing hypotheses to be expressed within the same mathematical language. In “[Consciousness and Continuity](#)” (under review), I explain how the mathematical definition of a continuous function can be used to make progress on whether conscious experiences have continuous vs. discrete structures. In “[Universal Quality-Space](#)” (in prep), I develop a radical view of quality-spaces where every quality can be represented as a region in a single super-high-dimensional space.

Other work focuses on developing theory-neutral analyses of how a structural concept can be applied to consciousness. In “[Degrees of Consciousness](#)” (*Noûs* 2023), I explain what it means to say that some creatures are more conscious than others. In “[The Microstructure of Experience](#)” (*Journal of the American Philosophical Association*, 2019), I defend the view that experiences have non-introspectable microphenomenal properties. And in “[Is Consciousness Multidimensional?](#)” (in prep.), I develop an analysis of dimensions of consciousness and argue that while there’s a sense in which consciousness is obviously high-dimensional, there’s also a sense in which consciousness may turn out to be low-dimensional.

My most recent work on the structure of consciousness appeals to a distinction I’ve identified between two senses of ‘phenomenal consciousness’. In

“Subjectivity vs. Phenomenal Character” (in prep.), I distinguish ‘subjectivity’ (what makes an entity feel some way at all) from ‘phenomenal character’ (the way it feels to be an entity) and explain how the distinction elucidates questions about degrees, dimensions, and determinacy of consciousness. In [“The Light & the Room”](#) (*Introducing Philosophy of Mind, Today*, Routledge, forth.), I explore a common metaphor (“to be conscious is for the lights to be on inside”) and use the metaphor to illustrate the distinction between subjectivity and phenomenal character. In [“Global States of Consciousness”](#) (w. Matthias Michel, in prep.), we identify five theoretical roles associated with the notion of a “global state of consciousness,” argue that no current theory satisfies all those roles, and develop a new theory (appealing to my distinction between subjectivity and phenomenal character) that does.

Alongside my own research, I’m also currently co-editing a special issue on [“Structuralism in the Science of Consciousness”](#) (w. Sascha Fink) for *Philosophy and the Mind Sciences*. Over the coming years, I plan to write a book on the structure of consciousness.

Ethics

Many people think consciousness is, in some way, ethically significant. But there’s no consensus on how exactly consciousness ought to figure into our ethical theories. I’m interested in identifying the ways in which consciousness is (and isn’t) ethically significant, and in exploring some surrounding issues about welfare and value.

In [“Consciousness Makes Things Matter,”](#) (*Philosophers’ Imprint*, forthcoming), I argue that consciousness is what makes an entity a welfare subject, or the kind of thing that can be better or worse off and that can have a life worth living (or not). I argue this view is plausible even if there could be conscious entities that necessarily cannot accrue any welfare goods or bads. In [“Metaethical Experientialism”](#) (*The Importance of Being Conscious—OUP Volume, 2024*), I argue that value facts about experiences (such as the fact that pain is bad) yield genuine counterexamples to the epistemic gap between descriptive facts and ethical facts. I argue that these inferential connections can ground a version of a priori ethical naturalism. These—alongside other work in progress—develop a positive picture of the ethical (and metaethical) significance of consciousness.

Other work of mine argues against claims about the ethical significance of consciousness. In [“Is Consciousness Intrinsically Valuable?”](#) (*Philosophical Studies*,

2018), I argue that prior arguments for the conclusion that consciousness is intrinsically valuable are methodologically flawed, and I argue instead that consciousness is value neutral. In “[Speciesism and Sentientism](#)” (*Journal of Consciousness Studies*, 2022), I criticize some prior assertions that the view that consciousness matters morally is analogous to speciesism.

My interests in ethics also address questions beyond consciousness. In “[The Neutrality of Life](#)” (*Australasian Journal of Philosophy*, 2022), I argue that views that take life itself to be valuable must either accept that (1) good human lives are worse than very long lives wholly devoid of any goods, or (2) very short lives containing nothing but horrific suffering are worth living. In “[The Utility Monster](#)” (under review), I develop a new impossibility result—concerning a scenario involving the utility monster—that connects population ethics with theories of welfare.

Mind & Language

My interest in structure has led to a collaborative project (with Josh Myers & Gabe Rabin) on representational format. In “[The Structure of Analog Representation](#)” (*Noûs* 2023), we develop a theory of the difference between analog representations (such as mercury thermometers) vs. symbolic representations (such as digital thermometers). The core idea is that analog representation is a matter of structural correspondence between vehicles and contents. To make this precise, we develop three distinct degreed measures of structural correspondence. In “[The Structure of Iconic Representation](#)” (in prep), we expand our prior work to develop a theory of iconic representation, where the core idea is that iconic representations (such as photographs) are structured collections of analog representations. In the future, we expect to continue working on other categories of representational systems, such as maps.

My work on degrees of consciousness has led to work on some related questions about the semantics of ‘conscious’. In “[The Gradability of ‘Conscious’](#)” (w. Poppy Mankowitz, under review), we argue that the term ‘conscious’ (in the phenomenal sense) sometimes functions as a *gradable adjective*, meaning an adjective that permits degree modifiers (‘slightly’, ‘very’) and comparative constructions (‘more conscious than’). In “[Nothing is Borderline Conscious](#)” (in prep), I develop a variety of semantic, metasemantic, and metaphysical arguments for the thesis that ‘consciousness’ is sharp, rather than vague.

Other work of mine concerns perception, introspection, and attention, and their relations to consciousness. In “[A Theory of Sense-Data](#)” (under review), I develop a novel version of sense-datum theory. In “[Knowing What It’s Like](#)” (*Philosophical Perspectives*, 2023), I develop a degreed theory of knowledge of what it’s like, whereby all knowledge of what it’s like varies along a spectrum from more exact to more approximate. In “Naïve Realism about Introspection” (in prep), I develop a theory that takes introspection to be epistemically privileged yet that also takes all introspective judgments to be fallible.

Metaphysics

My interest in the structure of consciousness has also led to work on the metaphysics of various kinds of structural properties. In some cases, I aim to enhance my work on the structure of consciousness by developing general metaphysical analyses of the relevant structural concepts.

For example, my work on dimensions of consciousness has led to “Dimensions: A User’s Guide” (in prep), where I develop an analysis of what it is for one property (such as hue) to be a dimension of another property (such as color), what it is for a property to be n -dimensional, and how these analyses connect to mathematical definitions of ‘dimension’. Similarly, my work on the structure of consciousness has led to “Three Senses of ‘Structure’” (in prep), where I disentangle three senses of the term ‘structure’, which I call ‘mathematical structure’, ‘invariance structure’, and ‘natural structure’.

I’ve also recently developed some interests in some metaphysical puzzles about infinite sums. In “[A Puzzle about Sums](#)” (*Oxford Studies in Metaphysics* forthcoming, winner of the Sanders Metaphysics Prize), I examine a puzzle about the metaphysical significance of a famous mathematical theorem about infinite sums. I develop a solution to the puzzle, and then show how the solution leads to new insights about the metaphysics of quantities and locations. In “A Puzzle about Hotel Infinity” (in prep), I examine a related puzzle about (divergent) infinite series. These may initially feel remote from my work on the structure of consciousness, but a number of my ideas about quantities and locations appear in both projects.