
Research Statement

My philosophical work is centered around the following questions:

1. How are conscious experiences structured?
2. What is the ethical significance of consciousness?

The heart of my research lies within the philosophy of mind. But my research also has substantive intersections into ethics, epistemology, metaphysics, cognitive science, and the philosophy of science. My diverse interests enable me to find intersections with most other people's research, even when they work on seemingly disparate topics. At the same time, my focus on consciousness yields a sustained research program that unifies my philosophical interests.

The Structures of Conscious Experiences

My main research project investigates how conscious experiences are structured. Consider how your color experiences have hue, saturation, and brightness as dimensions of variation, how your visual field decreases in precision from the center to the periphery, or how your pain experiences come in different magnitudes. Yet while we have some structural knowledge of some aspects of consciousness, there has been little consensus on more foundational questions: Are experiences continuous or discrete? Do experiences have parts? Does consciousness come in degrees? Which mathematical formalisms can be used to model conscious experiences?

Although these kinds of questions remain underexplored, they have received increasing amounts of attention from philosophers and scientists in recent years. If we wish to find the neural correlates of consciousness, then we need to look for neural states whose structures match the structures of our conscious experiences. If we wish to construct empirical measures of consciousness, then we need to know whether consciousness is degreed or dichotomous. If we wish to characterize the conscious experiences of animals (or, perhaps in the future, artificial intelligences), then we need to better map the state-space of conscious experiences.

My research aims to make progress on these kinds of questions. The core idea behind my research program is developed in "Objective Phenomenology" (Revise & Resubmit, *Erkenntnis*), where I argue that facts purely about how experiences are structured are objective: even if we are unable to know the intrinsic qualities of

bat experiences, we can understand how bat experiences are structured. This idea is put to practice in “Modeling Mental Qualities” (*Philosophical Review*, 2021), where I develop a mathematical framework for modeling the mental qualities of conscious experiences. I explain how my framework sheds light on philosophical questions about the nature of imprecise experiences, the dimensions of phenomenal similarity, the phenomenal sorites, and the structures of quality-spaces.

In other work, I examine other basic questions about the structures of conscious experiences. In “The Microstructure of Experience” (*Journal of the American Philosophical Association*, 2019), I defend the view that experiences have non-introspectable microphenomenal properties. In “Consciousness and Continuity” (under review), I argue that conscious experiences have discrete (rather than continuous) structures. In “Degrees of Consciousness” (under review), I explain what it means to say that some creatures are more conscious than others.

In the future, I hope to continue exploring two basic themes. The first is the application of mathematical tools to philosophical questions about consciousness. The second is the application of my philosophical work to questions in the science of consciousness. My current research project at the University of Oslo, which takes an interdisciplinary approach to current issues in consciousness science, has been fruitful for developing both these themes.

The Ethical Significance of Consciousness

Suppose you have a choice between becoming a philosophical zombie while otherwise having an excellent life versus remaining conscious while leading an ordinary life. If you are like most people, you would choose the latter option. This indicates that consciousness plays an important role in what makes a life good or bad. But what exactly is the ethical significance of consciousness?

My work on consciousness and value begins, somewhat ironically, with a paper arguing that consciousness has no intrinsic value. In “Is Consciousness Intrinsically Valuable?” (*Philosophical Studies*, 2018), I explain why prior arguments that consciousness is intrinsically valuable are methodologically flawed and I argue that consciousness itself is value neutral. In “The Neutrality of Life” (Revise & Resubmit, *Australasian Journal of Philosophy*), I argue that every theory that takes consciousness to be valuable faces some version of the following dilemma: either (1) good human lives are worse than very long lives wholly devoid of pleasure, desire-satisfaction,

knowledge, or any other goods, or (2) very short lives containing nothing but horrific suffering are worth living.

While my work above argues that consciousness is value neutral, I also argue in other work that consciousness is ethically significant in other ways. In “Consciousness Makes Things Matter” (under review), I defend the view that all and only conscious entities are welfare subjects, in the sense of being able to be better or worse off. In “How We Know Pain Is Bad” (under review), 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. In “Speciesism and Sentientism” (invited article, special issue of *Journal of Consciousness Studies*), I argue that the view that consciousness matters morally is disanalogous to speciesism.

In future work, I’m interested in developing the idea of a “consciousness-first” approach to ethics. In other areas of philosophy, philosophers have argued that facts about phenomenal character can explain facts of other kinds (such as intentional or epistemic facts). I’m interested in exploring whether an analogous position is defensible for phenomenal facts and ethical facts, and in what the resulting ethical theory looks like if we adopt such a position.

Analog and Iconic Representation

Alongside my solo projects, I also have an ongoing collaborative project on analog and iconic representation with Josh Myers (NYU) and Gabe Rabin (NYU, Abu Dhabi). There are some representations—such as mercury thermometers and pictures—that represent analogically. There are other representations—such as digital thermometers or words—that represent symbolically. Although this distinction is intuitive, there has been a great deal of debate in recent years over how exactly to characterize this distinction.

In “The Structure of Analog Representation” (*Noûs*, forth.), we develop a theory of what makes a representation analog (as opposed to symbolic), where our core idea is that analog representation is a matter of structure representing structure. In “Iconic Representations as Analog Structures” (in prep.), we expand on 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 future work, we are interested in applying our ideas to questions about the representational format of conscious experiences.