

Research Statement

I am a philosopher working at the intersection of philosophy of mind, epistemology, and cognitive science. My research uses both *a priori* and empirically informed methods to investigate the nature and epistemic role of imagination, mental imagery, and images more generally.

The Epistemology of Imagination

The imagination plays a central role in our lives as epistemic agents. Before moving apartments, you might imagine moving your sofa through the doorway to assess whether it will fit. To better understand a partner's emotional state, you might imagine their what things are like from their perspective. When deciding whether to cook a new recipe, you might predict how it will taste by combining the flavors of its ingredients in your imagination.

These examples are mundane, but they raise a deep philosophical puzzle: how could merely imagining something give you any reason to believe that it is true? After all, the imagination is free to wander untethered from reality. This has led many philosophers to respond with skepticism—the imagination may be useful for generating ideas or exploring possibilities, but it cannot justify belief or yield knowledge. My research program pushes back by developing a comprehensive account of how the imagination can justify empirical beliefs.

In “The Epistemic Status of the Imagination” (*Philosophical Studies* 2021), “Reasoning with Imagination” (*Epistemic Uses of Imagination*, Routledge 2021), and “Imagination as a Source of Empirical Justification” (*Philosophy Compass* 2024), I argue that imagination can justify empirical beliefs when appropriately constrained by evidence. This solves the puzzle by showing that the freedom of the imagination is a double-edged sword: while you can choose to imagine anything you'd like, you can also choose to constrain the imagination to track reality. This explains how merely imagining something can, under certain conditions, give you reason to believe that it is true, while also explaining why imaginative fictions and fantasies are epistemically inert.

The justificatory power of the imagination is not, however, exhausted by the evidence that it is constrained by. “How Imagination Informs” (*The Philosophical Quarterly* 2025) argues that the imagination can represent new information and thereby generate new justification in virtue of the analog format of mental imagery. Analog representations represent relations ‘at no extra cost’ over and above their non-relational content, and this explains how you can get more out of the imagination than you put into it. For example, by imagining fitting the sofa through the doorway, you can learn something new about the spatial relations that hold between them. This view reframes imagination as a distinctive form of ampliative reasoning—it epistemically depends on prior justification while also systematically going beyond that prior justification.

Another thread of this project explores whether the imagination is itself epistemically evaluable. “The Epistemic Status of the Imagination” argues that imaginings are justified justifiers—not only can imaginings justify beliefs, but they are also evaluable as justified or

unjustified. This justificatory status grounds their ability to confer justification, and they acquire this status by being epistemically based on evidence. This overturns the traditional view that imagination is beyond the scope of epistemic normativity and immune to rational criticism.

Further developing this thread, “Imaginative Beliefs” (*Inquiry* 2024) argues for the stronger conclusion that some imaginings just *are* beliefs. There are imaginings that are evidence-sensitive and available for guiding reasoning and behavior in the ways that are constitutive of belief. This view puts pressure on cognitive architectures that cleave apart imagination and belief by holding that imagination is offline, imagistic, and arational while belief is online, discursive, and rationally evaluable. This, in turn, has broad implications for central issues in philosophy of mind and epistemology—from the perception-cognition border to the epistemic basing relation.

An emerging strand of my research explores how phenomenal variation between imaginings bears on the epistemology of conscious experience. “The Epistemic Role of Vividness” (*Analysis* 2024) draws on empirical findings to argue that the vividness of mental imagery is higher-order evidence about one’s epistemic state, rather than first-order evidence about the world. Relatedly, “Aphantasia and the Epistemic Role of Consciousness” (in prep) investigates the nature and epistemology of aphantasia—a disorder of mental imagery that has recently attracted significant attention—by arguing that it involves unconscious mental imagery. Both papers build on my work on imagination by connecting it to philosophical and cognitive scientific literatures on episodic memory, consciousness, and metacognition.

While most of my work in epistemology has focused on epistemic justification, I am currently developing a new research project on understanding. “Imagination and Understanding” (in prep) argues that understanding is grounded in imaginative capacities—what you understand is not just a matter of what you know, but also what you can imagine. This imaginative model of understanding is supported by prominent views linking understanding to structural representation and cognitive manipulation. It can also explain core features of understanding such as its resistance to testimonial transmission and its role in scientific practice. Future work will extend this account by exploring the role of motor imagination in practical understanding and experiential imagination in interpersonal understanding.

Other future projects on the imagination include papers that (i) reconcile the voluntariness of the imagination with its justificatory force, (ii) investigate the role of imagination in hypothesis generation, and (iii) develop a hybrid causal-intentional account of imaginative accuracy.

Analog and Iconic Representation

My work on the imagination is motivated by a broader interest in the nature and significance of representations that occur outside of language and discursive thought. Philosophy is just beginning to grapple with the breadth of representational kinds implicated in communication and cognition. While language is important, it is only part of the story. Often overlooked but no less significant are analog and iconic representations.

Compare a mercury thermometer to a digital thermometer. Both thermometers represent temperature. But they do so in different ways—only the former is analog. “The Structure of Analog Representation” (*Noûs* 2023), co-authored with Andrew Lee and Gabriel Rabin, develops a novel theory of analog representation. The core idea is that analog representations use interpretive rules that map syntactic structure to semantic structure. We explicate a general framework for theorizing about representational format, argue that analog representation comes in degrees, and show how our theory explains some of its practical costs and benefits.

In “The Structure of Iconic Representation” (in prep), we expand on this work to develop a theory of iconic (or imagistic) representation, according to which iconic representations are ‘locatively structured’ analog representations. We show how this view results in a fruitful taxonomy of representational kinds and resolves longstanding debates in cognitive science about how there could be images ‘in the head.’ In future work, we plan to explore (i) the representational format of consciousness and (ii) the role of magnitudes in analog representation.

My interest in representational format has led to a collaborative project with Johannes Mahr on whether memory and imagination are compositional. The orthodox view in philosophy and cognitive science is that episodic memories and imaginings are constructed based on associations between stored information. Against this, “Episodic Compositionality” (in prep) argues that the process of episodic construction operates on a rich syntactic structure and is therefore not merely associative but genuinely compositional.

Another solo project investigates images’ expressive limitations (or lack thereof). Many philosophers have argued that images cannot represent particulars and instead can only express general properties and relations. “Can Images Represent Particulars” (in prep) draws on tools from philosophy of language to argue that widely endorsed arguments for this view fail and that images instead refer indexically, with contextual factors fixing their singular content.

My research on analog and iconic representation intersects with my work in epistemology. For example, in “How Imagination Informs,” I argue that analog representations allow for a distinctive form of ampliative reasoning. Most work in epistemology either assumes that representational format is epistemically irrelevant, or focuses exclusively on discursive, language-like representations. In future research, I plan to continue to explore how traditional questions in epistemology can be fruitfully informed by images, maps, and diagrams.

Summing Up

My research brings epistemology into conversation with empirically informed philosophy of mind to advance a unified account of the imagination’s cognitive and epistemic significance. Future work will continue this integrated approach, with projects ranging from the nature, structure, and semantics of images to the role of the imagination in reasoning, evidence, and understanding. These lines of inquiry open the door to a more expansive epistemology that recognizes the full range of human cognitive capacities and representational resources.