



NATURALISED EPISTEMOLOGIES OF MODALITY WORKSHOP

ORGANISERS: SAMUEL BOARDMAN, TOM SCHOONEN, & BARBARA VETTER

SCHEDULE

TUESDAY MARCH 22ND, 2022

EST	GMT	GMT + 1	
08:45 - 09:00	12:45 - 13:00	13:45 - 14:00	Welcome
09:00 - 10:15	13:00 - 14:15	14:00 - 15:15	Valentine Hacquard <i>Untangling possibilities and necessities in child language</i>
10:30 - 11:45	14:30 - 15:45	15:30 - 16:45	Daniel Nolan <i>Unified Modal Epistemology</i>
12:00 - 13:15	16:00 - 17:15	17:00 - 18:15	Samuel Boardman & Tom Schoonen <i>Core Imagination</i>

WEDNESDAY MARCH 23RD, 2022

EST	GMT	GMT + 1	
09:00 - 10:15	13:00 - 14:15	14:00 - 15:15	Ylwa Sjölin Wirling <i>The Role of Models in Modal Modeling</i>
10:30 - 11:45	14:30 - 15:45	15:30 - 16:45	Jessica Wilson <i>Abduction: The Ultimate Arbiter of Modal Dispute</i>
12:00 - 13:15	16:00 - 17:15	17:00 - 18:15	Jonathan Phillips <i>Unifying modal thought and talk</i>

THURSDAY MARCH 24TH, 2022

EST	GMT	GMT + 1	
09:00 - 10:15	13:00 - 14:15	14:00 - 15:15	Barbara Vetter <i>The Epistemology of Agentive Modality</i>
10:30 - 11:45	14:30 - 15:45	15:30 - 16:45	Sonia Roca-Royes <i>Objective modalities, (Dis)Unification, and Epistemology</i>
12:00 - 13:15	16:00 - 17:15	17:00 - 18:15	Amanda Bryant & Alastair Wilson <i>Modal Naturalism</i>

ABSTRACTS

Valentine Hacquard *Untangling possibilities and necessities in child language*

This talk examines the learning challenges that modal words like *can*, or *must* give rise to. Modals vary in force (possibility vs. necessity) and flavor (epistemic, deontic, etc). When and how do children figure out the force and flavor(s) that the modals of their language can express? How much of their difficulty with modals is conceptual, pragmatic, or merely lexical? I will present a series of corpus and behavioral experiments examining modal talk to and by children, to probe the nature and the depth of children's struggles with modal force and flavor.

Daniel Nolan *Unified Modal Epistemology*

We learn about what can and cannot be the case in a range of different ways. On the surface, the way we discover that a piece of fine china can break easily is very different from the way we find out that there cannot be a highest prime number. I will argue that, despite surface appearances, there are deep commonalities in the ways we form modal judgements. The picture I will present will make it easier to see how we can come to know facts about what is metaphysically possible or logically possible, as well as facts about what can happen in more commonplace senses of "can". While my focus will be on alethic modalities, I will also suggest that there are deep and systematic connections between these modalities and various epistemic modalities.

Samuel Boardman & Tom Schoonen *Core Imagination*

It is consensus that imagination, in imagination-based epistemologies of possibility, has to be constrained to be epistemically useful. We argue that there are constraints that imagination inherits from simply being part of our cognitive lives, namely, constraints from core cognition. These constraints are (i) empirically well respected; (ii) allow imagination to play a significant role in the epistemology of possibility; and have been not yet been considered in the philosophy of imagination.

Ylwa Sjöling Wirling *The Role of Models in Modal Modeling* [with Till Grüne-Yanoff]

Scientists often make and seek to justify modal claims. We have argued elsewhere that many accounts of these *modal* modeling practices rely on justificatory strategies familiar from the modal epistemology literature, e.g. (relevantly constrained) imagination, background theory, similarity-judgements. This raises the question of just what the role of the *models* are, since the modal epistemology literature makes little reference to scientific models. In this paper, we focus on this question of the role of models in the justification of scientific modal claims. In particular, we carve out and distinguish three types of roles that scientific models can play in modal justification: providing concretized situations for compatibility tests, allowing for comparisons between particular systems, and functioning as repositories for the imagination. We illustrate each of these roles with actual modeling practices. We conclude that models are *enablers* of modal justification: they play central roles in the production of scientific modal knowledge, even when the justification strictly speaking comes from various types of empirical background knowledge that informs the modeling practice.

Jessica Wilson *Abduction: The Ultimate Arbiter of Modal Dispute* [with Stephen Biggs]

In modal epistemology, the primary focus has been on the 'access question': how can we come to know, or be justified in believing, what is necessary, possible, contingent, essential, and accidental? There now exist several answers to the access question which are adequate in accounting for at least some (if not all) modal knowledge. Accordingly, modal epistemologists are now in position to turn attention to a different question, reflecting that answers to the access question sometimes disagree on the status of certain modal claims—namely, the 'arbiter question': What is the ultimate arbiter of modal dispute? In this talk we motivate and provide an answer to the arbiter question. More specifically, we clarify the access question (S 2) and confirm that it has several adequate answers (S 3); clarify the arbiter question (S 4) and show that various adequate answers to the access question support taking abduction (inference to the best explanation) to be the ulti-

mate arbiter of modal disputes (S 5); argue that abduction is superior in three important respects to potential alternatives qua ultimate arbiter of modal dispute (S 6); and argue that taking abduction to be the ultimate arbiter of disputes does not hinge on which modal ontology one adopts (S 7).

Jonathan Phillips *Unifying modal thought and talk*

In this talk, I'll present joint work with Angelika Kratzer which offers a unified account of the semantics and development of epistemic modal talk and thought. I'll begin by laying out our general framework: factual domain projection from an anchor situation. In this framework, epistemic modality is special because it requires that we use anchor situations involving our own psychological states to project possibilities that entail what we know. Critically, this way of understanding modality offers a natural decomposition of the abilities that children need to develop to have the capacity for epistemic modal thoughts. I'll review the developmental evidence that supports this decomposition and illustrate how it provides a clear explanation of the pattern one finds in the development of epistemic modal thought and talk.

Barbara Vetter *The Epistemology of Agentive Modality*

Agentive modality is the modality that is directly relevant for our actions, and expressed with what is sometimes called "agentive modals": abilities, options, affordances, and so on. Our knowledge of agentive modality provides a plausible starting point for a naturalized modal epistemology, but there has been little discussion of it. I argue that agentive modality is not accounted for by extant approaches in modal epistemology, and provide the beginnings of a more promising approach based in the experience of our own agency.

Sonia Roca-Royes *Objective modalities, (Dis)Unification, and Epistemology*

The paper explores the relation among different kinds of objective modalities. It motivates a Finean view according to which, at a fundamental level, only *metaphysical* modality is *de re*, showing how this goes against the received *onion model*, according to which the physically possible is (properly) included in the metaphysically possible. (The term 'objective' will, in view of this, need to be precisified.) Following this, the paper suggests how this picture can serve possibility-first explanations of *metaphysical* modal knowledge allay a specific type of concern: namely, that they miss their target in providing at most an account of *physical* modal knowledge. They do not.

Amanda Bryant & Alastair Wilson *Modal Naturalism*

Our project in this paper is to develop and defend an approach to the epistemology of modal facts which assigns a central role to scientific knowledge. According to our proposed modal naturalism, science (construed broadly) provides our primary and best source of evidence concerning the modal facts.