The Source of Modality:
Introduction

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Ordinary experience and scientific investigation give us the impression that some things could or could not have been otherwise. Had we been more responsible, this special issue would have been published earlier. Had we decided to do so, we could have drunk tea rather than coffee for breakfast this morning. But no matter how different we had behaved in the past, $2 + 2 = 4$ would have not been otherwise. And for all we know, only if the laws of nature had been different, two fermions could have occupied the same quantum state simultaneously.

In many contexts, both scientific and mundane, we deeply care about these facts about possibility and necessity: Is life on Mars possible? Can we still prevent catastrophic climate changes? Can my favourite team win the NBA Finals next year?[1]

Philosophy is no exception. As Boris Kment notes,

> since the work of Kripke, Lewis, and others ushered in the modal turn in analytic philosophy, modality has become one of the most active areas of research in metaphysics and modal notions have been central to philosophical theorizing across the board—from the foundations of logic to moral theory (Kment 2014: 1).

And while issues involving modal facts are pervasive in all of philosophical investigation, arguably in metaphysics they play an even more central role—for instance, famously E.J. Lowe maintained that possibility is the proper subject matter of metaphysics itself:

> metaphysics may [...] be characterized as the science of the possible, charged with charting the domain of objective or real possibility [...] All metaphysics is implicitly modal, because it is primarily concerned with kinds of things are possible or compossible, and only subsequently with what kinds of things are actual (Lowe 2011: 100-106).

So, it seems extremely important for metaphysicians to fully understand what modality is—to offer a metaphysical explanation of modal phenomena. This involves a number of closely interrelated questions. First of all, concerning the

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[1] These questions are, naturally, ordered from least to most important.

explanandum: is there a unique kind of (alethic) necessity and possibility, or is there a plurality? If the latter, in what relation do they stand? Is there an absolute kind and various restrictions of it, or are the different modalities irreducible?

Secondly: In virtue of which facts are certain truths necessary, while others are merely possible or contingent? Can modal facts be explained in non-modal terms? If there is a plurality of kinds of modality, how are their grounds related?

Following Dummett (1959: 237), we can express the kernel of all these question by simply asking: What is the *source* of necessity?

The "modal turn" and the subsequent attention for modality in philosophy was heralded by the development and outstanding success of possible worlds semantics (Carnap 1946, 1947; Barcan Marcus 1946; Kripke 1959); understandably, then, traditionally the answers to the question concerning the source of modality have focused on the nature of possible worlds (Lewis 1986, Plantinga 1974; 1976 Adams 1974, Bricker 1987, Forbes 1985, Menzel 1990) and on whether these can yield a reductive account of modality (Divers and Melia 2002, 2003, 2006; Shalkowski 1994; Lycan 1988; Sider 2003; Cameron 2012); in particular, thanks to the towering influence of David Lewis' *On the Plurality of Worlds*, much of the discussion concerning the source of modality in the last quarter of the 20th century revolved around the debate between Genuine Modal Realism and various forms of "Ersatzism" about possible worlds.

While the debate concerning the nature of possible worlds remains active—most recently, it has received new blood from unexpected sources, such as Everettian interpretations of quantum mechanics (Wilson 2020), recent years have seen an explosion of different approaches that break away from the focus on possible worlds and their natures (Cameron 2010), sometimes even challenging the informativeness of the Leibnizian biconditionals that are at the heart of possible worlds discourse (Contessa 2009; Vetter 2011).

In particular, there are three research programs that we think deserve special attention: first, a new wave of primitivist theories about modality (Wilsch 2017; Wang 2013) and counterfactuals (Lange 2009). Second, non-descriptivist theories of modality (Thomasson 2020), which aim to deflate the metaphysics of modality and reduce it to something less mysterious, such as meta-linguistic negotiation, for example. Finally, there is the heterogeneous family of "New Actualist" theories of modality, which seek to ground modality in something more fundamental than simple possibility, necessity, or primitive counterfactuals, while also attempting to do away with possible worlds altogether, thereby identifying the sources of modal truths only in (local) features of the actual world. These include, most notably, dispositionalists and essentialists. Dispositionalists (Vetter 2015; Borghini and Williams 2008; Jacobs 2010; Jaag 2014; Kimpton-Nye 2021) claim that dispositional properties (powers, capacities, potentialities) of actually existing things are the *loci* of modal truths. Essentialists*,* on the other hand, aim to ground modality in the essences of actually existing entities (Ditter 2020; Fine 1994; Hale 2013; Correia 2012; Lowe 2013).

However, not everyone agrees that the question concerning the source of modality is the right one to ask. Simon Blackburn (1993) has famously argued that every attempt to account for the source of necessity is doomed from the outset: for, either the source of necessity is in turn necessary, in which case every metaphysical explanation of necessity will leave a "bad residual must", or it is contingent, which, according to Blackburn, would undermine the necessity that we meant to be accounted for.

Metaphysicians of modality are then faced with two levels of questions: at the first level, there is the attempt of coming up with the best explanation as to the source of modality; and, at a higher level, there is question of whether the source of necessity can or needs to be answered at all.

Our goal with this special issue is to collect articles showcasing recent and promising developments in the metaphysics of modality that face up precisely to these two tasks. The papers collected here display a variety of different approaches, which we believe will be a point of reference for future discussion about these views, but also invite productive conversations and debates to be had between the proponents of these new theories.

The question of whether these alternatives to classic possible-worlds approaches can deliver what they promise remains—but we hope that these articles will help the reader see the (possible) world(s) aright.

1. Invited Papers

Jessica Leech (King's College London) discusses the connection between logical and metaphysical necessities, raising a serious problem for the essentialist view—namely, the position that necessity has its source in the nature or essence of things. If logical necessity has its source in the essences of logical entities, then logical necessity is a restriction of metaphysical necessity However, this result is problematic. Leech argues that the essentialist ought to sacrifice core features of the view to solve this problem.

Michael Wallner (University of Graz) develops a sophisticated defence of Finean Essentialism against recent objections moved by Bovey (2022), Romero (2019) and others concerning an explanatory gap between essence and necessity. Essence can explain necessity, provided that the necessity of essence is built into Finean essences in an appropriate manner. Key to the success of this strategy, Wallner argues, is the distinction between generative and non-generative metaphysical explanation.

Jennifer Wang and **Tom Donaldson** (Simon Fraser University) engage with Amie Thomasson's discussion of *de re* modality from recent book, *Norms and Necessity*. Thomasson defends a modal normativism, the view that when one says 'necessarily, *p*', one conveys that *p*'s truth is a consequence of semantic rules. By discussing the connection to Quine's argument about *de re modality*, Wang and Donaldson offer a critical assessment of Thomasson's view and offer an alternative approach.

Tobias Wilsch (University of Tübingen/Mainz) focuses on modal logicism, the view that the necessity of logical truths is grounded in logic. The ultimate source of necessity, on this view, is logic. Wilsch articulates a version of modal logicism with the aim of triggering a debate about this alternative to essentialist approaches. However, Wilsch also argues that modal logicism cannot give a satisfactory account of *de re* necessity.

Alastair Wilson (University of Birmingham) directly tackles the question of whether necessity and possibility are to be metaphysically explained at all; he explores the view that the necessity of necessities is ungrounded while the contingency of contingencies is grounded. Wilson articulates this 'necessity first' approach by comparing it view 'contingency first' approaches as well as David Lewis's modal realism and Barbara Vetter's potentialism. The overall goal of Wilson's paper is to illuminate various ways to develop theories of modality, proposing

a new alternative to approaches that take necessity as a default and seek to explain contingency as derivative.

2. Contributed Papers

Lorenzo Azzano (University of Santiago de Compostela) defends the merits of a power-based approach to possible worlds semantics, expanding on a proposal suggested by Vetter (2015). On the resulting view, a possible world is a dispositional array: a power for the entire universe to be thus-and-so. Azzano clarifies the nature of dispositional arrays and how they account for a range of possibilities. Azzano showcases the advantages of this proposal by connecting it to the traditional possible worlds semantics and the power-based semantics, hinting at important consequences for the discussion about the source of modality.

Simon H. Babbs and **Joshua Mendelsohn** (Loyola University Chicago) discuss Hale's (2013) three conception of absolute necessity and argue that they are less illuminating than what one might initially suppose. The objection they raise is that these conceptions are under-specified in various important respects and are sensitive to the presuppositions invoked to specify them. By showing that attempting of specifying Hale's conceptions are problematic, Babbs and Mendelsohn cast doubts on the possibility of defining absolute necessity in terms of other necessities.

James L.D. Brown (University of Sheffield) discussed Blackburn's argument that a necessity cannot be the sources of necessity. Brown argues for two things. One is that Blackburn fails in showing that a necessity cannot be the source of necessity. The other is that Hale's essentialist theory and Peacocke's principle-based approach also fail to ground necessity in necessity. Brown concludes by offering some positive suggestions on how to address the challenge of finding a source of necessity.

Giulia Casini (University of Sheffield) offers a critical assessment of Vetter's (2015) potentiality-based framework, particularly in connection with its associated account of counterfactual conditionals. Within the context of this framework, Casini applies Lewis's interdefinability principle to identify suitable truth-conditions for would-be counterfactuals that should be included in Vetter's theory. While the proposal seems to be initially promising, Casini concludes that a complete account of would-be counterfactual demands careful attention to how would-be counterfactuals interact with Vetter's notion of an iterated potentiality.

Salim Hirèche (Université de Genève) articulates and defends an original relativized essentialism. This view combines the essentialist idea of reducing necessities to absolute essences with the view that certain kinds of irreducible necessities, such as natural and normative necessities, are grounded in the relative essences of the relative entities. Hirèche argues that the emerging framework is a promising theory that can successfully accounts for a large range of kinds of necessities while escaping the issues of absolutist essentialism.

William B. Knowles (University of Manchester) deals with Blackburn's dilemma. Typically formulated, the dilemma is that in explaining necessary truths, we need either to appeal to another necessary truth or to a contingent truth. However, as the standard story goes, both horns yield unsatisfactory views. Knowles defends two claims. First, Blackburn's dilemma has a wider reach than initially supposed, covering explanations of necessary truths in general. Second, it argues

for the clam that the contingency horn of the dilemma is tenable for those who believe in the analyticity of necessary truths.

Nathan Wildman (University of Tilburg) argues against the popular opinion that contingencies are insufficiently "oomphy" to ground explanations of the modal status of necessities. Wildman defend this claim by identify certain conditions which, if satisfied, entail the possibility of contingent necessity-makers. Then, Wildman shows that necessary contingent possibilities, which satisfy the identified conditions, are necessities having contingent necessity-makers.

We wish to thank the contributors for their help in making this special issue a fruitful resource for those who are interested in foundational questions concerning the metaphysics of modality. We anticipate that the articles we collected will provide the readers with a better understanding of modality and its philosophical significance.

References

Adams, R. 1974, "Theories of Actuality", *Noûs*, 8, 211-31.

Barcan Marcus, R. 1946, "A Functional Calculus of First-Order Based on Strict Implication", *The Journal of Symbolic Logic*, II, 115-18.

Blackburn, S. 1993, "Modals and Morals", in his *Essays in Quasi-Realism*, Oxford: Oxford University Press, 52-74.

Borghini, A. and Williams, N. 2008. "A Dispositional Theory of Possibility", *Dialectica*, 62, 21-41.

Bricker, P. 1987, "Reducing Possible Worlds to Language", *Philosophical Studies*, 52, 3, 331-55.

Bricker, P. 2006, "Absolute Actuality and the Plurality of Worlds", *Philosophical Perspectives*, 20, 41-76.

Cameron, R. 2010, "On the Source of Necessity", in Hale, B. and Hoffman, A. (eds.), *Modality: Metaphysics, Logic, and Epistemology*, Oxford: Oxford University Press.

Cameron, R. 2012, "Why Lewis's Analysis of Modality Succeeds in Its Reductive Ambitions", *Philosopher's Imprint*, 12, 8.

Carnap, R. 1946, "Modalities and Quantification", *The Journal of Symbolic Logic*, II, 33-60.

Carnap, R. 1947, *Meaning and Necessity: A Study in Semantics and Modal Logic*, Chicago, The University of Chicago Press.

Contessa, G. 2009, "Modal Truthmakers and Two Varieties of Actualism", *Synthese*, 174, 341-53.

Correia, F. 2012, "On the Reduction of Necessity to Essence", *Philosophy and Phenomenological Research*, 84, 3, 639-53.

Ditter, A. 2020, "The Reduction of Necessity to Essence", *Mind*, 129, 514, 351-80.

Divers, J. and Melia, J. 2002, "The Analytic Limit of Genuine Modal Realism", *Mind*, 111, 15-36.

Divers, J. and Melia, J. 2003 "Genuine Modal Realism Limited", *Mind*, 112, 83-86.

Divers, J. and Melia, J. 2006, "Genuine Modal Realism: Still Limited", *Mind*, 115, 732-40.

Dummett, M. 1959, "Wittgenstein's Philosophy of Mathematics", T*he Philosophical Review*, 68, 3, 324-48.

Fine, K. 1994, "Essence and Modality", *Philosophical Perspectives*, 8, 1-16.

Forbes, G. 1985, *The Metaphysics of Modality*, Oxford: Clarendon Press.

Hale, B. 2013, *Necessary Beings: An Essay on Ontology, Modality, and the Relation Between Them*, Oxford: Oxford University Press.

Jaag, S. 2014, "Dispositional Essentialism and the Grounding of Natural Modality", *Philosophers' Imprint*, 14.

Jacobs, J. 2010, "A Powers Theory of Modality: Or, How I Learned to Stop Worrying and Reject Possible Worlds", *Philosophical Studies*, 151, 227-48.

Kimpton-Nye, S. 2021, "Can Hardcore Actualism Validate S5?", *Philosophy and Phenomenological Research*, 102, 2, 342-58.

Kment, B. 2014, *Modality and Explanatory Reasoning.* Oxford: Oxford University Press.

Kripke, S. 1959, "A Completeness Theorem in Modal Logic", *The Journal of Symbolic Logic*, 24, 1-14.

Menzel, C. 1990, "Actualism, Ontological Commitment, and Possible Worlds", *Synthese*, 85, 355-89.

Lange, M. 2009, *Laws and Lawmakers: Science, Metaphysics, and the Laws of Nature*, Oxford: Oxford University Press.

Lewis, D. 1986, *On the Plurality of Worlds,* Oxford: Blackwell.

Lowe, E.J. 2011, "The Rationality of Metaphysics", *Synthese*, 178, 99-109.

Lowe, E.J. 2013, *Forms of Thought: A Study in Philosophical Logic*, Oxford: Oxford University Press.

Lycan, William G. 1988, "Review of *On The Plurality of Worlds*", *Journal of Philosophy*, LXXXV, 42-47.

Plantinga, A. 1974, *The Nature of Necessity*, Oxford: Oxford University Press.

Shalkowski, S. 1994, "The Ontological Ground of the Alethic Modality", *The Philosophical Review*, 103, 4, 669-88.

Sider, T. 2003, "Reductive Theories of Modality", in Loux, M. and Zimmerman, D. (eds.), *The Oxford Handbook of Metaphysics*, Oxford: Oxford University Press, 180-208.

Thomasson, A. 2020, *Norms and Necessity*, Oxford: Oxford University Press.

Vetter, B. 2011, "Recent Work: Modality Without Possible Worlds", *Analysis*, 71, 742-54.

Vetter, B. 2015, *Potentiality: From Dispositions to Modality*, Oxford: Oxford University Press.

Wang, J. 2013, "From Combinatorialism to Primitivism", *Australasian Journal of Philosophy*, 91, 3, 535-54.

Wilsch, T. 2017, "Sophisticated Modal Primitivism", *Philosophical Issues*, 27, 1, 428-48.

Wilson, A. 2020, *The Nature of Contingency*, Oxford: Oxford University Press.