

## Necessity first

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# Necessity First

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## *Abstract*

My topic in this paper is the relationships of metaphysical priority which might hold between the different alethic modal statuses—necessity, contingency, possibility and impossibility. In particular, I am interested in exploring the view that the necessity of necessities is ungrounded while the contingency of contingencies is grounded—a scenario I call ‘necessity first’. I will explicate and scrutinize the contrast between necessity first and its ‘contingency first’ contrary, and then compare both views with ‘multimodal’ and ‘amodal’ alternatives, drawing on David Lewis’s modal realism and Barbara Vetter’s potentialism as example cases. I will then defend the necessity-first point of view from a reversed version of Blackburn’s classic dilemma against theories of the source of necessity.

*Keywords:* Necessity, Contingency, Possibility, Grounding, Modality.

## 1. Introduction

Does necessity go all the way down?—that is, are there necessary facts such that nothing grounds their necessity? Does contingency go all the way down?—that is, are there contingent facts such that nothing grounds their contingency? Is there both ungrounded necessity and ungrounded contingency? Or does neither notion reach down to the fundamental level of reality?

My focus in this paper is on the relationships of metaphysical priority which hold between the different alethic modal statuses—necessity, contingency, possibility and impossibility. To streamline the discussion, I will work primarily in terms of facts, understood as true propositions, so that the relevant modal statuses for facts are necessity (necessary truth) and contingency (contingent truth). Co-opting the terminology of grounding theory for the time being, I am interested in the facts which comprise the ultimate ground of modal status—that is, in those facts which lie at the origin of the chain of metaphysical explanations for modal status (assuming that the chain has an origin). I am interested in particular in the idea that the necessity of necessities is ungrounded while the contingency of contingencies is grounded.

I take it that the core element of modal theorizing is a distinction between the contingent and the non-contingent. With all facts necessary, modality trivializes; with all facts contingent, it goes inconsistent. Accordingly I will take it as

common ground between the different views to be discussed here that there is a clear and exclusive distinction (although perhaps not an exhaustive or fundamental one) between the contingent facts and the necessary facts. That is all I will need to assume in order to investigate the metaphysical order of priority between the two sides of the distinction.

Although questions about the relative metaphysical priority of necessity and contingency have been neglected, recent work has started to address them. Rosen (2006) puts forward a conception of contingency as the ‘default status for propositions’, with necessity understood as a kind of deviation from the default. In A. Wilson (2020) I dubbed this conception ‘contingency first’ and argued for an alternative conception, ‘necessity first’. Necessity first says, at a first pass, that necessity is basic while contingency is derivative.

In sections 2 and 3 I will explore the distinction between necessity-first and contingency-first views and contrast both views with their ‘amodal’ and ‘multi-modal’ competitors. In section 4 I apply the ground-theoretic version of the contrast to Lewisian modal realism, contrasting necessity-first and amodal interpretations of modal realism and suggesting that Lewis may have converted from the latter to the former in between his early and mature work on modality. In section 5 I apply the contrast to a very different theory of modality—Vetter’s reduction of modality to potentiality—and again I distinguish necessity-first and amodal versions of Vetter’s view. In section 6 I will defend the necessity first approach from an objection which (to my knowledge) has not yet been discussed in the literature: a reversed version of Blackburn’s classic dilemma against theories of the source of necessity. Section 7 is a conclusion.

## 2. Duality and Priority

One of the most familiar features of modal thinking is the duality of possibility and necessity. Possibility entails not-necessarily-not-ness; necessity entails not-possibly-not-ness. These familiar entailments are often informally regarded as reflecting complete metaphysical equivalences: to be possible is just to be not necessarily not the case, and to be necessary is just to be not possibly not the case, such that while each modal notion is definable in terms of the other, neither is prior to the other. But this metaphysical egalitarianism is not obligatory: we might instead offer a theory according to which possibility remains prior to necessity, or vice versa, yet which nevertheless explains the relevant entailments. For example, we might imagine that necessity can be reductively explained in terms of possibility, or vice versa, in a way which secures—and thereby explains—their duality.<sup>1</sup>

Let us then explore the consequences of denying the metaphysical equivalence of possibility and necessity. Here we follow a path recently explored by Gideon Rosen, who has defended an inegalitarian view of modality which makes possibility prior to necessity:

[M]etaphysical possibility is, as it were, the default status for propositions. When the question arises, ‘Is P metaphysically possible?’ the first question we ask is

<sup>1</sup> Some inegalitarian views (e.g. Goswick 2015) recover duality only in a restricted range of cases.

‘Why shouldn’t it be possible?’ [...] P is metaphysically possible unless there is some reason why it should not be—unless there is, as we say, some sort of obstacle to its possibility. Moreover, the only such obstacle we recognize is latent absurdity or contradiction (Rosen 2006: 23).

I want to unpack this a little.

First, I would like to slightly reframe the passage without—I hope—altering its philosophical substance. Observe that everything Rosen says can be applied equally to a proposition P and to its negation not-P. If some obstacle is required to defeat the possibility of P and some obstacle is also required to defeat the possibility of not-P, then in the absence of any obstacle each of P and not-P is possible. It follows that in the absence of any obstacle P is contingent: that is, some obstacle is required to defeat P’s contingency. This observation enables us to harmlessly shift the terms of discussion from propositions and their possibility to facts and their contingency, as follows:

Metaphysical contingency is, as it were, the default status for facts. When the question arises, ‘Is F metaphysically contingent?’ the first question we ask is ‘Why shouldn’t it be contingent?’ [...] F is metaphysically contingent unless there is some reason why it should not be—unless there is, as we say, some sort of obstacle to its contingency. Moreover, the only obstacles we recognize are latent absurdity or contradiction in its negation.

We can even more quickly move from contingency as a default to possibility as a default, since contingency entails possibility. I will therefore set aside Rosen’s possibility-of-propositions framing and work in terms of contingency of facts for the rest of this paper. Everything I say about contingency first applies to Rosen’s possibility-first vision too.

Second, notice that Rosen puts all but the first of his claims in the epistemic register. A question arises about some fact’s contingency; to answer it, we ask another question about whether there are obstacles to that fact’s contingency; if we recognize any such obstacles, we regard the fact as non-contingent. For an obstacle to play this epistemic role, it doesn’t have to explain the fact’s non-contingency; it could in principle be merely correlated with non-contingency. The presence of suitable obstacles could then, in principle, be a sufficient condition for the non-contingency of a fact without explaining that fact’s non-contingency. But I take it this is not what Rosen has in mind; his choice of term ‘obstacle’ suggests a substantial sense in which the presence of the obstacle prevents the contingency of the fact. I will interpret Rosen as intending that an obstacle must explain a fact’s non-contingency.

In what sense could latent absurdity or contradiction in a fact’s negation explain its non-contingency? Any modal or nomological analysis of obstaclehood is obviously a non-starter; instead we will need to apply some kind of metaphysical explanatory notion to pick out some respect in which the obstacle in question explains the non-contingency of any fact for which that obstacle is present. We can rework the passage to make this explicit:

Contingency is the default status for facts. F is metaphysically contingent unless there is some metaphysical explanation of its not being metaphysically contingent. Moreover, all metaphysical explanations for a fact’s not being metaphysically contingent involve latent absurdity or contradiction in the fact’s negation.

Rosen's talk of 'obstacles' and 'reasons' is clearly intended just as a first pass at clarifying the idea of possibility as a default. In the next section, I will offer a more systematic treatment by applying the ideology of grounding theory to characterize obstacles to contingency.

An alternative option for understanding the notion of a default would have been to deploy the notion of structure, or concept-fundamentality, which Ted Sider has introduced in recent work. Sider's structurality predicate can be applied to entities from any category, including modal operators. We might then say, for example, that the  $\Diamond$  operator signifying possibility is more structural than the  $\Box$  operator signifying necessity, and that necessity must be given a metaphysical semantics in terms of possibility. To focus our question entirely on the role of modal operators has one significant disadvantage, however: it stacks the deck against views of modality, most notoriously the modal realism of David Lewis, which deny modal logic and its operators any special authority in modal theorizing. In his early papers on counterpart theory, in *On the Plurality of Worlds*, and in his correspondence, Lewis consistently resists formulating significant metaphysical claims in the language of modal logic, preferring instead to quantify directly over possibilia. While modal realism might be overlooked as an outlier, other more recent treatments, including the potentiality-based approach of Vetter (2015), also seek to account for modality in terms of a basic modal ideology which outstrips what can be expressed in terms of  $\Box$  and  $\Diamond$ . In the next section I will formulate the key principles of this paper in terms of the more generalized notion of metaphysical grounding amongst modal facts, rather than focusing exclusively on the status of the modal operators.

### 3. Necessity First

In this section I will focus on one particular approach to explicating the necessity-first line of thought, an approach which makes use of the notion of metaphysical ground and of the grounding-theoretic conception of fundamentality as ungroundedness. On this understanding, Rosen's 'obstacles' are what in A. Wilson 2018 I called metaphysical preventers—grounds for something's not being the case.

Here is one way of capturing the distinction I have in mind:<sup>2</sup>

*Necessity first:* The necessity of necessary facts is ungrounded; the contingency of contingent facts is grounded.

*Contingency first:* The contingency of contingent facts is ungrounded; the necessity of necessary facts is grounded.

Contingency first captures Rosen's idea of contingency as a default, as unpacked in the previous section. If there is no ground for a fact's non-contingency, then it is contingent. Contingency first adds a claim about fundamentality which is not explicit in Rosen's discussion but is, I think, congenial to it: contingency is fundamental.

Notice immediately that what is said by each principle to be grounded or ungrounded is a fact's modal status, rather than the fact itself. What the necessity-first view says is that, for any given fact which is necessary, there is nothing which grounds that it is necessary, whereas for any given fact which is contingent, there is

<sup>2</sup> These definitions resemble but extend those in A. Wilson 2020: 14.

something which grounds that it is contingent. Necessity first does not say that all ungrounded truths are necessary: it permits contingent ungrounded truths, so long as their contingency has some ground. This point should hopefully pre-empt any worries about the potential violation by the necessity-first view of a popular principle connecting fundamentality and possible recombination—often called ‘Hume’s dictum’ (Wang 2016, J. Wilson 2010). According to the version of Hume’s dictum I have in mind, the fundamental elements, whatever they may be, stand in a contingent pattern of fundamental external relations. Since the necessity-first approach permits contingent fundamental truths—for instance, that some particular fundamental chancy disposition does or does not activate on some occasion—there is no obstacle to free recombination holding between these truths. The recombination principle—even the necessity of the recombination principle—might be fundamental. So there is no clash between necessity first and Hume’s dictum.

Contingency first says that the contingency of contingent truths is ungrounded, while the necessity of necessary truths is grounded; it permits ungrounded necessary truths, as long as their necessity has some ground. What is it for the modal status of a truth to have a ground? The grounds of F’s necessity can’t just be the grounds for ‘necessarily F’—since, if F is itself grounded, then something might be a ground of ‘necessarily F’ indirectly, by being a ground of F which itself has nothing to do with F’s necessity. Consider the fact that Mars is Mars; this fact is a ground of the fact that everything is self-identical without (presumably) being a ground of the necessity of everything’s being self-identical. We need, I think, to factor out contributions made to the grounding of ‘necessarily F’ by grounds for F that are not grounds of F’s necessity. We can do this using the concept of a grounding set—the set of all possible partial grounds for some fact. The grounding set for ‘necessarily F’ will include all the possible partial grounds for ‘F’ plus—perhaps!—some others. This permits the following reformulation:

*Necessity first\**: For necessary F, the grounding set for F is identical to the grounding set for necessarily F. For contingent F, the grounding set for F is a proper subset of the grounding set for contingently F.

*Contingency first\**: For necessary F, the grounding set for F is identical to the grounding set for necessarily F. For contingent F, the grounding set for F is a proper subset of the grounding set for contingently F.

I suggest that the contingency-first viewpoint as here explicated does a reasonably good job of capturing Rosen’s informal characterization of possibility as a default. A proposition’s contingency, being ungrounded, is not even the kind of thing apt for explanation. Necessity, by contrast, requires a non-trivial ‘reason’: departures from contingency must be grounded.

The necessity-first viewpoint inverts Rosen’s vision. The necessity of necessary truths needs no grounding—no reason is required for a fact to be necessary—while in contrast a reason is required for a fact to be contingent. The necessity-firster asks: what accounts for reality’s variability with respect to this subject-matter? They are committed to the answer that something or other does account for the contingency of contingent truths, although of course (in light of our very limited evidence base when it comes to fundamental metaphysical theorizing) we might not always be able to identify what that something might be.

The motivation for saying that some necessity facts are fundamental is, roughly, the thought that for some facts, to obtain just is to obtain necessarily. Then if such a fact is fundamental, so is its necessitation. Rosen's term 'default' is getting at a very similar idea, I think: when something is the default status, one doesn't need an explanation of why it has that status at all, which is to say that its having that status adds nothing to its simply obtaining. And necessity might be the default status if obtaining with modal alternatives adds something to simply obtaining.

It will be immediately apparent that the contrast between necessity first and contingency first is not exhaustive. An alternative approach takes as basic both the necessity of necessary truths and the contingency of contingent truths, with neither reduced to the other. I will call this the multimodal approach.

*Multimodal:* The necessity of necessary facts is ungrounded; the contingency of contingent facts is ungrounded.

The multimodal view encompasses any philosopher who endorses fundamental modality but who rejects substantive relations of metaphysical priority which might prioritize necessity over contingency, or vice versa—including, *inter alia*, Williamson (2013) and Stalnaker (2011).

The main downside of the multimodal approach is that it offers no prospect of explaining the relationship between necessity and contingency. It is just a brute fact about the two notions that necessary truths are non-contingent, and contingent truths are non-necessary. The duality of necessity and possibility is likewise assumed, not derived. By contrast, if contingency can be reductively explained in terms of lack of necessity (or vice versa) then this relationship can potentially be rendered unmysterious.

Instead of being multimodal by including both ungrounded necessity and ungrounded contingency, might fundamental reality be amodal by including neither?

*Amodal:* The necessity of necessary facts is grounded; the contingency of contingent facts is grounded.

The amodal view encompasses (as degenerate cases) most of those who adopt a deflationist, projectivist, conventionalist or otherwise anti-realist approach to modality (as long as they stop short of total modal eliminativism). This includes Sider (2011) and Cameron (2009), who argue that the distinction between the necessary and contingent is a matter of convention; if that is so, then there is neither necessity nor contingency at the fundamental level. Sidelle (1989) and Goswick (2015) adopt related approaches focused on *de re* modality in particular: the idea is that fundamental reality consists of non-modal stuff, the properties of which are not possessed necessarily or possessed contingently but merely possessed. *De re* modality is then accounted for partly in terms of the non-modal stuff with its non-modal properties, and partly in terms of some other component such as our conventions—making *de re* modality non-fundamental.

It is not only anti-realists about modality, however, who endorse amodal approaches. Skow (forthcoming) defends what he calls the moodless theory of modality, an explicitly amodal theory which closely resembles Lewisian modal realism while remaining neutral on the nature of the worldmate relation. Modal realism itself has often been read as an amodal theory, though I will argue in the next section that both amodal and necessity-first interpretations of Lewis are defensible. Another realist version of amodalism is the view that necessity and contingency are metaphysically interdependent, such that necessity is grounded in con-

tingency while contingency is also grounded in necessity. The interdependence view permits a robust metaphysical explanation of duality, along the same lines as the contingency-first or necessity-first approaches. It also captures the egalitarian thought that (in light of their duality) it would be arbitrary to privilege either necessity or contingency in our metaphysical theorizing. But the interdependence view also requires some non-standard assumptions about the nature and logical features of ground (see Thompson 2016 for discussion), and properly exploring it would take us too far afield; discussion of the view must await another occasion.

#### 4. Example: Lewis's Modal Realism

In *The Nature of Contingency* (A. Wilson 2020: 13-14), I represented modal realism in general, and Lewisian modal realism in particular, as necessity-first approaches to modality. This involved making two claims: that the best version of modal realism is a necessity-first version, and that Lewis himself intended his modal realism to be understood in a necessity-first manner. In this section I will first distinguish between necessity-first and amodal approaches to modal realism in general, and then present two rival interpretations of Lewisian modal realism: a necessity-first interpretation, and an amodal interpretation.

Did Lewis see contingency as grounded in necessity, or did he regard both contingency and necessity as grounded in fundamental facts to which the statuses of 'necessary' and 'contingent' simply do not properly apply? In A. Wilson (2020) I interpreted Lewis as a necessity-firster. While I agree that necessity first corresponds to Lewis's mature view, the interpretive question is certainly not settled and I aim to say a little more about it in this section. In any case, exploring the necessity-first view in the context of a familiar theory of modality will be helpful in seeing how the distinction between the view and its rivals plays out in practice.

First, we can set aside the contingency-first and multimodal interpretations, since I take it to be clear that Lewis would have rejected ungrounded contingency. It is uncontroversial that contingency is wholly an indexical phenomenon for Lewis: contingent propositions are identified as 'irreducibly de se' self-ascriptions of properties (Lewis 1979, 1986). In addition, there is no sense in which the fundamental ingredients of Lewisian modal realism—the totality of possible individuals which link up spatiotemporally to compose the worlds—could have been different. Some of these possibilities have others as counterparts, of course, but there is no contingency in any counterpart relation either. There is only contingency—indexical contingency!—in which counterpart relation we ourselves have happened to attend to.

If contingency is non-fundamental in Lewisian modal realism, then it is not ungrounded. So contingency-first and multimodal readings of Lewisian modal realism can immediately be excluded. This leaves us with two possible versions of modal realism: a necessity-first version and an amodal version.

According to the necessity-first version of modal realism, the entirety of the theory of modal realism is itself necessary. 'There are possible worlds' does have a modal status: necessarily true. Every fact has a modal status: non-indexical facts about the Lewisian pluriverse are necessary, while indexical facts about what world we ourselves inhabit are contingent. That there exists a wombat is necessary; that there exists an actual wombat is contingent.

Here is what I said in an introduction to a recent book to characterize the necessity-first approach to modal realism:



What modal realists do, against a theoretical background of purely necessary claims, is to locate an essentially indexical subject-matter as the source of contingency [...] There is no residual mystery concerning how indexical questions remain open once the non-indexical facts have all been fixed. The contingency of all contingent truths can in this way be explained wholly in terms of necessary truths (A. Wilson 2020: 16).

Readers may doubt that contingency can really be explained in this way; I defer these concerns to section 6.

According to the amodal version of modal realism, the entirety of the theory of modal realism lacks any modal status. Non-indexical facts about the modal realist pluriverse simply obtain, neither necessarily nor contingently, while de se self-ascriptions of properties obtain either contingently or necessarily. That there exists a wombat is neither necessary nor contingent; that there exists a wombat in my world is contingent; that there exists something in my world is necessary. The only necessities are then those which are indexical but which nonetheless obtain at every world: necessarily something actual exists, necessarily everything actual is self-identical. Exactly how far this body of necessities extends will depend on the chosen flavour of modal realism. Different variants of amodal modal realism might for example treat truths of mathematics either as necessary or as neither necessary nor contingent, depending on how the relationship between mathematical truth and truth at a world is construed.

The necessity-first version of modal realism recognises all the necessities of the amodal approach, as well as some additional necessities which correspond to the theory of modal realism itself. Necessity-first modal realism also recognises as necessary facts about which particular worlds there are, so long as we assume that this extensional information about modality is not included in the theory of modal realism itself (see Divers and Melia 2002 and A. Wilson forthcoming for further discussion). And necessity-first modal realism renders logic and mathematics necessary without requiring any grounds for that necessity; it is enough that nothing grounds their contingency.

I turn next to the interpretive question of whether Lewis intended an amodal or a necessity-first interpretation of modal realism. Amodal interpreters of Lewis include Skow (forthcoming) and Divers and Melia (2002); necessity-first interpreters include Dorr (MS) and A. Wilson (2020). Cases can be made for both interpretations. Lewis appears to explicitly endorse an amodal approach in his initial papers on counterpart theory and in letters written around the same time. However, in his considered presentation of modal realism in *On the Plurality of Worlds* he avoids any explicit statements of the amodal approach, and instead his remarks strongly suggest a necessity-first interpretation. One plausible suggestion, floated by Dorr, is that Lewis changed his mind on this point in the intervening decade-and-a-half.

In “Counterpart Theory and Quantified Modal Logic”, Lewis presents counterpart theory via a translation schema for sentences of quantified modal logic, showing how to eliminate all modal operators from such sentences in exchange for the predicates of counterpart theory. He does not address the modal status of his ontology of worlds and their possibilities contents directly, but counterpart theory is said to draw on ‘our all-purpose, extensional logic’ provided ‘with predicates, and a domain of quantification suited to the topic of modality’ (Lewis 1968: 113). This strongly suggests an amodal reading of the modal realist project: the

reductive base concerns only what is and what it is like, not what must be or what it must be like. In a letter to Alvin Plantinga from the same period, Lewis expresses a more explicit commitment to an amodal reading of modal realism, though posed in a linguistic mode:

I would put it this way: just as the distinction between permanent and temporary truth doesn't arise for a tenseless language, free of temporal indexicality, so the distinction between necessity and contingency doesn't arise for a language which refers explicitly to possible worlds and, in addition, is free of world-indexicality (Lewis 1969: 256).

By 1986 this explicitly amodalist language has completely disappeared from Lewis's full-length presentation of his view. Instead, Lewis seems quite happy to refer to various components of modal realism as necessary. For example:

Our *contingent* knowledge that there are donkeys at our world requires causal acquaintance with the donkeys, or at least with what produces them. Our *necessary* knowledge that there are donkeys at some worlds—even talking donkeys, donkeys with dragons as worldmates, and what have you—does not require causal acquaintance either with the donkeys or with what produces them. It requires no observation of our surroundings, because it is no part of our knowledge of which possible world is ours and which possible individuals are we (Lewis 1986: 112; emphasis in original).

Lewis's published writings leave some room for doubt on the interpretive question. However, I think it is settled by recently published correspondence from around the same time. Here Lewis is explicit in signing up for the core idea of necessity first:

On my analysis, possibility statements turn out to be existential quantifications; existential quantifications are true, when they are, because they have instances that make them true; so on my analysis it turns out true possibility statements need truth-makers. But also, on my analysis, necessity statements turn out to be universal quantifications; universal quantifications are true, when they are, because they have no counter instances to make them false; so on my analysis, it turns out that true necessity statements do not need truth-makers, but false ones need false-makers (Lewis 1987: 579).

I want to conclude this section by connecting it with Lewisian modal realism's advanced modalizing debate. The so-called 'problem of advanced modalizing' stems from applying the Lewisian analysis of modality to 'advanced' modal facts about the modal status of the pluriverse or parts thereof. The amodal and necessity-first viewpoints therefore correspond to different strategies for solving the problem of advanced modalizing. The amodal modal realist sets aside advanced modal questions as ill-formed or otherwise incoherent, and therefore ends up rejecting some natural principles of modal logic (such as the T axiom) in full generality; see Parsons (MS) and Dorr (MS) for discussion. The necessity-first modal realist faces up to advanced modal questions, and seeks to answer them consistently and coherently while ensuring that their answers come out non-contingent.

Questions in the vicinity of advanced modalizing can be extended to other views of modality. A closely-related case is the quantum modal realism described

in A. Wilson (2020); there I adopt the necessity-first viewpoint and defend it on the grounds that it permits an application of the elegant and unified counterpart-theoretic account of modal language developed by Dorr (MS). (Interestingly, reviews by Divers (forthcoming) and Le Bihan (forthcoming) both argue that I should have instead developed my position in an amodalist manner.) Looking further afield within the space of modal theories, we can ask Armstrong-style modal combinatorialists about the modal status of their principle of recombination, we can ask modalists about the modal status of their axioms governing the behaviour of the modal operators, and we can ask ‘magical ersatzers’ in the mould of Plantinga and van Inwagen whether there is contingency in the relation between their simple abstract worlds and the complex qualitative possibilities those worlds represent. Indeed, it seems that all realist views of modality have problems with their analogue of advanced modalizing—except perhaps for views which incorporate indefinite extensibility of the modal domain, as in Priest (2005).

### 5. Example: Vetter’s Potentialism

Vetter (2015) offers an influential account of modality which reduces modal facts—as formalized with  $\Box$  and  $\Diamond$ —to facts about entities she calls potentialities. What is possible and what is necessary can be understood in terms of what potentialities things have and do not have. Accordingly, in Vetter’s picture questions about the fundamentality of modal statuses become linked to questions about the fundamentality of existence and non-existence.

Let us focus on the simplest cases, ignoring much of the complexity of Vetter’s account.<sup>3</sup> What it is for it to be possible for some simple to wobble is for the simple to have the potentiality to wobble. No potentiality to wobble, no possibility of the simple wobbling. With potentiality present, it is possible for the simple to wobble. As a result, whether the default scenario includes the possibility of simples wobbling depends on whether the default scenario includes simples with the potentiality to wobble.

Now frame this in the terms of section 3. Contingency first says that the contingency of contingent facts is ungrounded, while the necessity of necessary facts is grounded. Consider a hypothetical contingent fact C that the simple wobbles. In Vetter’s setting, the contingency of C would require both that the simple has a potentiality to wobble and that the simple has a potentiality not to wobble. Thus C’s contingency places substantive demands on what exists and on what instantiates what: there must be at least two potentialities, and the simple must exist and possess them. It is not plausible that the fact that the potentialities exist and are possessed by the simple is ungrounded; at the very least, it is grounded in the existence of the potentiality, of the simple, and of the possession of the potentiality by the simple. I conclude that the contingency first and the multimodal approaches are both poor fits with Vetter’s potentialism.

Now consider a hypothetical necessary fact N that the simple does not wobble. The obtaining of N does not require any potentiality to not wobble; it merely requires that there be no potentiality to wobble. Thus N’s necessity does not entail that anything beyond the simple exists or instantiates anything. N’s necessity does

<sup>3</sup> In particular, I ignore iterated potentialities and joint potentialities.

however impose a negative demand: the relevant potentiality must not be possessed by the simple. So, depending on whether negative facts are grounded or not, N's necessity may or may not require a grounding in the fundamental.

Consider the view that facts about nonexistence are grounded, for example in a totality fact (call it T). Then N's necessity is grounded in T. So N's necessity is grounded. This leaves us with an amodal approach to Vetter's potentialism: both the contingency of contingent claims and the necessity of necessity claims are grounded, in whichever parts of reality ground existence claims and nonexistence claims respectively.

Consider next the view that facts about nonexistence are ungrounded. Then, since N's necessity amounts to the fact that the simple has no potentiality to wobble, and since the fact that the simple has no potentiality to wobble is ungrounded, then N's necessity is ungrounded. Putting this together with our previous conclusion that contingency is always grounded, we obtain a necessity-first version of Vetter's view. The default situation is the non-existence of any given potentiality; so the default situation is the lacking of any possibility of variation in the relevant respect; so the default situation is that reality be necessary in that respect.

That is all I have to say by way of explication of the distinction between the necessity-first view and its contingency-first, amodal and multimodal rivals. In the remainder of the paper, I will defend the necessity-first view from an objection which challenges the necessity-first's reduction of contingency to necessity.

## 6. The Reverse Blackburn's Dilemma

Blackburn (1986) develops a dilemma for would-be analyzers of modality. Either an account of modality appeals only to non-modal resources, in which case the analysis looks inadequate as 'the original necessity has not been so much explained as undermined', or it appeals to modal resources, in which case 'there will be the same bad residual "must"' (Blackburn 1986: 635).

Various styles of response to Blackburn's dilemma have been attempted. A popular approach is to reject the second horn, and maintain that it is acceptable to give a theory of modality in partly modal terms. Stalnaker has been a prominent proponent of such a non-reductive realism about modality (although his most recent book (Stalnaker 2011) seems to drift closer to instrumentalism than to realism). Another style of approach rejects the first horn. Cameron (2010) argues that necessities might be explained by contingencies: it is enough that necessarily some contingency or other explains a given necessity, even if there is no contingency which necessarily explains it. Such a scenario would seem not to undermine the original necessity in the way which Blackburn assumes. Setting the specifics of these responses aside, Blackburn's dilemma presupposes the contingency-first viewpoint, and immediately evaporates if we adopt the necessity-first perspective. If necessity is a default status for propositions, ungrounded in anything else, then there is nothing more to say about what grounds it.

The necessity-first's celebrations are short-lived. Necessity first gives rise to a reversed form of the dilemma, which will be the focus of this section:

**Reverse Blackburn's Dilemma:** Contingency can't be accounted for; if it is accounted for in terms of contingent truths then there is a bad residual might-not-have and if it is accounted for in terms of necessary truths then the contingency has not been so much explained as undermined.

The original Blackburn's dilemma says that neither necessary nor contingent propositions can be adequate grounds for the necessity of a proposition, because the former leave a new unexplained necessity and the latter cannot explain necessity at all. The reversed dilemma says that neither necessary nor contingent propositions can be adequate grounds for the contingency of a proposition, because the former cannot explain contingency at all and the latter leave a new unexplained contingency.

It appears that both of the strategies for addressing Blackburn's dilemma outlined above can be extended to address the reverse Blackburn's dilemma. The first horn is to maintain that contingency can be understood in terms of contingent truths, despite the apparent circularity this involves: non-reductive theories are an option for the necessity-firster just as for the contingency-firster. But non-reductive theories are disappointingly unambitious. I am more interested in the strategy which grasps the second horn of the reverse Blackburn's dilemma, and maintains that contingency can be accounted for in terms of necessities. So: how is this possible?

In the case of necessity-first modal realism, the relevant contingencies are self-ascriptions of properties like 'inhabiting a world containing wombats' and the relevant necessities are the principles of modal realism itself. Modal realism, insofar as it succeeds as a theory of modality, is in the business of identifying some necessary facts about a plurality of worlds and showing how they collectively make room for contingency. The way the worlds make room for contingency is by containing individuals which can be the subjects of self-ascriptions of objects. I think it is clear that the right thing for a modal realist to say in grounding terms is that necessity grounds contingency, taking the second horn of the reverse Blackburn's dilemma. The non-reductive approach involved in taking the first horn is especially unattractive given the modal realist's prized goal of avoiding primitive modality.

In the case of Vetter's potentialism (understood as a necessity-first view), the relevant contingencies are patterns of activation of potentialities and the relevant necessities are facts about which actual basic potentialities there are and what they are like. Vetter does not envisage any meta-potentiality for the basic potentialities to be different, and as a result there is no contingency in what the basic potentialities are like. Potentialism, insofar as it succeeds as a theory of modality, is in the business of identifying some necessary facts about potentialities and showing how they collectively make room for contingency. The way the potentialities make room for contingency is by permitting a range of manifestations in a given circumstance, only one of which can actually occur. Again, I think it is clear that a potentialist should say, in grounding terms, that necessity grounds contingency, again taking the second horn of the reverse Blackburn's dilemma.

In each case, it seems to me that the crucial step in accounting for contingency in terms of necessities is to conceive of the task not in terms of transforming some necessary facts into contingent facts—in a kind of modal alchemy—but rather in terms of showing how the fundamental necessary facts can collectively make room for the contingency of some further non-fundamental facts. What we can have in general is a (perhaps partial, perhaps not fully satisfying) *how-possible* explanation for the contingency of some truth in terms of some necessities. We do not have a (full) explanation for any particular contingency in terms of any particular necessity—but (we may insist) that is just because we don't have a full expla-

nation for any particular contingency at all. That is just what it is for them to be contingencies.

## 7. Conclusion

At least since Hume, the contingency-first approach has predominated. Contingency is typically regarded as unproblematic, while accounting for necessity is seen as a deep philosophical problem. Modal realism and potentialism understood on the necessity-first model both invert this perspective and give a substantive account of contingency against a background of necessary truths.

Regardless of the right way to interpret Lewis, Vetter, or any other metaphysician, the categorization scheme of this paper has, I hope, helped to illuminate some very different ways to develop theories of modality. We can take necessity as a default and seek to give a constructive explanatory theory of contingency; we can take contingency as a default and seek to give a constructive explanatory theory of necessity. We can take both notions as primitive and irreducible; we can seek to reduce both notions to wholly non-modal foundations. It is a striking sign of the lack of consensus within contemporary modal metaphysics that all four approaches have their defenders. Not only is there no agreement on which theory of modality is correct, there is not even any agreement on what a theory of modality must explain.<sup>4</sup>

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