Necessity by Accident

Nathan Wildman

Tilburg University

Abstract

General consensus has it that contingencies lack the requisite modal *umph* to serve as explanations for the modal status of necessities. The central aim of this paper is to show that this received opinion is incorrect: contingent necessity-makers are in fact possible. To do so, I identify certain conditions the satisfaction of which entail the possibility of contingent necessity-makers. I then argue for two broad instances where these conditions are satisfied. Consequently, the associated necessities in fact have contingent necessity-makers.

Keywords: Necessity-makers, Grounds for necessity, Blackburn's dilemma, Contingency, Foundations of modality.

1. Introduction

Some time ago, Dummett claimed that the central philosophical problem about necessity is two-fold: "what is its source, and how do we recognise it" (Dummett 1959: 169). Many, though most obviously Hale (2002, 2013), have understood the first of Dummett's problems as demanding an *explanation* for necessity. This can either take the form of a *local* explanation of the modal status of a particular necessity—i.e., why it is that *P* is necessary—or a *general* explanation of the existence of necessities—i.e., why is that there are any necessities at all.

More recently, Blackburn (1986) offered a dilemma for any potential response to Dummett's source problem. In brief: to explain the source of any necessity, we must appeal to some fact, which itself is either necessary or contingent. But if the explanans is another necessity, then we have merely shifted the bubble in the carpet, leaving a "bad residual must". Meanwhile, if the explanans is a contingency, then the explanation is doomed to failure, since its contingent nature makes it seem as if the "original necessity has not been explained or identified, so much as undermined". Consequently, either the explanans "shares the modal status of the original, and leaves us dissatisfied, or it does not, and leaves us equally dissatisfied" (1986: 54).

Blackburn took his dilemma to motivate rejecting the realist project of explaining modality in favour of a quasi-realist view, according to which modal statements are merely projections of our attitudes. Few realists have been persuaded. Instead,

a body of literature has emerged discussing and dissecting Blackburn's dilemma, spelling out various ways realists about modality can respond to it.[1] Nearly all of these responses have focused on blunting the necessity horn. This is primarily because general consensus has it that contingencies "lack the modal strength to be necessity-makers" (Lange 2008: 122). Thus it is typically thought that, "if there can be any explanation of necessities at all—either of particular necessities, or of the existence of necessities in general—it can only be in terms of necessities" (Hale 2013: 131).

The central aim of this paper is to show that, *contra* received opinion, contingent necessity-makers are possible. In fact, I will argue that the modal status of some absolute necessities turns out be explicable in terms of contingent matters.

To do so, after spelling out some requisite preliminaries and background assumptions (§2), I begin (§3) by quickly sketching and dismissing arguments from Hale and Hanks against contingent necessity-makers. I then proceed (§4) to offer a generalized, schematic argument, identifying certain conditions the satisfaction of which entail the possibility of contingent necessity-makers. Building on this, I go on to argue (§5) that (i) *necessary contingent possibilities* (i.e., necessities of the form "□◇(P)", where the embedded fact P is itself not necessary), and (ii) *qua-object essence facts* satisfy these conditions. Consequently, these metaphysical (and, plausibly, absolute) necessities have contingent necessity-makers. Finally, I conclude (§6) by anticipating some potential objections.

Before moving on, a few clarifications are in order. First, the central question here is *not* whether there are any cases where P is explained by Q, but P is necessary and Q contingent. Such cases are a regular occurrence, and do not warrant much investigation; for example, that (Socrates is wise or ¬(Socrates is wise)) is both necessary and explained by the contingent fact that Socrates is wise. Rather, what is relevant here are cases where the *modal status* of a necessary P is explained by some contingent Q—that is, where P *is necessary* because Q and Q is contingent.

Second, because we are dealing with the relationship between modality and explanation, it will prove useful to talk as though being possible/necessary are features of *facts*. This is simply for ease of expression, as we can rephrase the following in terms of propositions. However, doing so quickly becomes cumbersome. Additionally, for ease of readability, I will use standard modal operators to express modal status. So, I will express "P is necessary because Q" as "□P because Q".

Third, one initially plausible source of contingent necessity-makers are linguistic conventions—indeed, Hale says it is "far from clear" how a non-conventionalist explanation of necessities via contingencies might run (2013: 128). Roughly, the conventionalist says that our linguistic conventions ground the meanings of our expressions, which in turn ground the analyticity of certain propositions. And, as all analyticities are necessary, we can trace the resulting necessity back down to our (contingent!) linguistic conventions. However, despite the initially attractive nature of this sort of approach, I avoid it here: the contingent necessity-makers I offer below have nothing to do with linguistic conventions.[2]

---

[1] See e.g. Hale 2002 and Cameron 2010 for general discussion of Blackburn's dilemma, and Hale 2013, Hanks 2008, Lange 2008, Morato 2014, and Wildman 2017, 2021 for discussion of the contingency horn in particular.

[2] For some objections to linguistic conventionalism, see Quine 1936, Lewy 1976, Yablo 1992 and Hale 2013: 117-31; for a defence, see Sidelle 1989.

Finally, we need to be careful about which necessities we target. Consider normative necessity. Plausibly, the fact that Bart is in pain is a complete explanation for the fact that Nathan must help Bart. (This is an obvious extreme simplification, so feel free to complicate the set-up however you like—e.g., add that he finds no pleasure in the experience, his pain is due to being maliciously tortured by Wim, etc.) What is important is that, we've a prima facie instance of a contingent fact—that Bart is in pain—explaining a normative necessity—that Nathan *must* help Bart. We might think this is job done. Problem: Normative necessity is *non-alethic*—there are lots of things that we ought to that we don't in fact do. What we are after is providing a contingent necessity-maker for an *alethic* necessity.

In fact, we're after something even narrower: *absolute* necessities. Perhaps the most natural way to get a grip on the notion is to think of the various alethic, non-epistemic necessities as part of a hierarchy ascending in strength, where a necessity $\Box_1$ is stronger than a necessity $\Box_2$ iff all the $\Box_1$ necessities are $\Box_2$ necessities, but not vice versa. Absolute necessity is the necessity at the top of the hierarchy—that is, it's the strongest necessity, such that every absolute necessity is also necessary in every weaker (alethic, non-epistemic) sense too.[3] Thus, as Hale (2013: 98-113) puts it, $\Box A$ is absolutely necessary iff for all alethic, non-epistemic senses of possibility, $\neg \Diamond \neg A$.

This highlights why we are here interested in contingent necessity-makers for absolute necessities: if some absolute necessity can be explained in terms of contingencies, then, because this necessity is also necessary in every weaker sense too, it follows that for all weaker necessities, there is a necessity of that type that is fully grounded in a contingency. So, if one absolute necessity has a contingent necessity-maker, the same is true for every other (alethic, non-epistemic) necessity too![4]

Of course, the next natural question is, what is the extension of absolute necessity? This is a thorny topic, which I am not going to attempt to settle here. Instead, following Hale (2012, 2013), I will assume that broadly metaphysical necessities—i.e., necessities that hold in virtue of essence, as well as logical necessities—are absolute. So, if we can show that a broadly metaphysical necessity has a contingent necessity-maker, then we'll have successfully proven that an absolute necessity has a contingent necessity-maker—and, given the previous paragraph, that at least one of every other necessity does too.

2. Preliminaries

A key first step for the following is to get a grip on the relevant notion of (non-causal, metaphysical) explanation. Following recent usage, I do so in terms of

---

[3] So understood, it's natural to call absolute necessity the "*Hulk* Necessity", since it's the strongest there is.

[4] Note that it isn't mandatory to adopt the hierarchy view to make sense of absolute necessity. Further, some—e.g. Fine (2002)—have rejected this *modal monist* picture altogether in favor of *modal pluralism,* according to which there are multiple, non-overlapping spheres of necessity. While pluralism would reduce the impact of my conclusions—it wouldn't follow that, for every kind of necessity, there is at least one necessity which is grounded in a contingency—the general result that some broadly metaphysical necessities are fully grounded in contingent facts is still striking.

grounding.[5] Grounding can be taken either as identical to metaphysical explanation, or as a relation that backs said explanations; I here officially remain neutral on this matter, though I will proceed as if the identification view holds. Notably, this is again for ease of expression, as my arguments can be rephrased, with only slight modification, with the "backing" view in mind.

As I understand it, grounding is an irreflexive, asymmetric, transitive, hyperintensional, and factive relation between facts, distinct from supervenience, entailment, truth-making, and ontological dependence, which forms a strict partial order—a hierarchy of ground—where the (more) fundamental serves to metaphysically explain the (more) derivative.[6]

In parallel with explanation, we can distinguish between *full* and *partial* grounding. The former I express using the connective "<", reserving "≺" for the latter. And while I will leave full ground undefined, I take the following to define partial ground:

A ≺ C iff$_{df}$ there is some (possibly empty) Δ such that A, Δ < C.[7]

Note that Δ is not arbitrary; rather, it must be (in some sense) *relevant* to the grounded fact. This relevance constraint renders grounding *non-monotonic*. Further, full ground imposes a *sufficiency* constraint: if some facts constitute a full ground of some other fact, then their obtaining must be sufficient (in the appropriate sense) for the grounded fact's obtaining. Thus a fact's full ground is bound

> 'from below' by the sufficiency constraint, which forces us to put enough into a given collection of facts that they are jointly sufficient for the fact to be grounded. [And] it is bound 'from above' by the relevance constraint, which prevents us from enlarging the collection of facts that is to be the ground in arbitrary ways (Krämer & Roski 2015: 65).

Additionally, full and partial ground are both *many-one*, in that they may take any number of arguments on the left-hand-side, but one on the right.[8] This feature is useful to make sense of certain intuitive grounding claims. For example, A and B jointly fully ground the conjunctive (A & B) but, given irreflexivity, the best way to express the grounding claim is by treating it as "A, B < (A & B)".

While this sketch ignores several important controversies about the details of grounding (and metaphysical explanation), it represents a fairly standard way of approaching the notion, which suffices for present purposes.[9]

---

[5] This is not to say that Dummett or Blackburn would be happy with appealing to grounding; however, it seems perfectly sensible to use recent developments in metaphysics when addressing problems concerning the foundations of modality.

[6] For broadly similar treatments of ground, see e.g. Audi 2012a, 2012b, Skiles 2015 and Fine 2012a.

[7] Fine (2012a) calls this *partial strict* ground. A consequence of this definition is that all full grounds are also partial grounds, and all partial grounds are part of some full ground. For similar definitions of partial ground, see Correia and Schnieder 2012: 21, Litland 2013: 20, Raven 2013: 194, Rosen 2010: 115, and Skiles 2015.

[8] Fine (2012a) defines partial ground as a one-one relation; however, the concept seems just as much many-one as full grounding, especially given that, as all full grounds are also partial grounds, the truth of "A, B < (A & B)" entails the truth of "A, B ≺ (A & B)".

[9] See e.g. Correia and Schnieder 2012, Trogdon 2013, Wilson 2014, Bliss and Trogdon 2014, and Raven 2015, 2020.

Importantly, with this characterization of grounding in hand, it is possible to define some key notions. First, a necessity-maker is a fact or plurality of facts that explain the modal status of some necessity; a contingent necessity-maker is a necessity-maker that only contingently obtains. Or, more explicitly:

Γ is a *necessity-maker* for A iff$_{df}$ $\Gamma < \Box A$

Γ is a *contingent necessity-maker* for A iff$_{df}$

(i) $\Gamma < \Box A$, and

(ii) where $S_1 \ldots S_n$ are in Γ, $\Diamond \neg (S_1 \& \ldots S_n)$[10].

So, we will have a positive answer to our overarching question if we can show that some Γ is both a full ground for the modal status of some necessity and at least one of the facts that is in this plurality is contingent.

3. Two Arguments against Contingent Necessity-Makers

Before turning to our positive argument, it is useful to address two arguments against the possibility of contingent necessity-makers.

In his attempts to explicate Blackburn's dilemma, Hale (2002, 2013) offers the follow reconstruction of the contingency-horn. Assume that some contingent Q fully explains $\Box P$. Further, assume the S4 principles—specifically, that $\Box P \to \Box\Box P$—and the following counterfactual principle:

NCF: $(B < A) \to (\neg B \Box\!\!\to \neg A)$

From Q's fully explaining P together with NCF, it follows that $(\neg Q \Box\!\!\to \neg \Box P)$. This, together with the Q's contingency, entails that $\Diamond \neg \Box P$. Finally, the S4 principle and $\Diamond \neg \Box P$ entails $\neg \Box P$. So, exactly as Blackburn suggested, it seems that the original necessity has not been explained but rather undermined by its contingent 'explanation'.

This obviously is a significant challenge for any would-be contingentist. So what should they say in reply?

In earlier work, Hale (2002: 302) seemed to think that this argument could be dealt with by denying the S4 principle, which he suggests 'pretty directly begs the question' against the contigentist.[11] However, he later came to think that this was not a suitable response, at least with regards to explaining *absolute* necessities:

> [G]iven that our intention is to capture […] an absolute notion of necessity, it is reasonable to require that the accessibility relation be universal—i.e. every world is accessible from every world. [...] If there were worlds *in*accessible from *w* at which *p* is false, then, since those worlds are possible (though *not* possible *relative* to *w*), *p* would not be true at all possible worlds *without restriction*—it would be true only at all worlds possible relative to *w*. In that sense, its necessity would be merely *relative* (truth throughout a restricted class of possible worlds) (Hale 2013: 130, his emphasis).

Hale is correct—denying the S4 principle is not a sensible move (if one agrees with Hale about the nature of absolute necessity, of course!). Thankfully, there's a more feasible reply available: deny NCF. Such a principle is, after all, subject to numerous counter-examples. For example, that Socrates is wise fully explains the disjunctive

---

[10] In the limit case where Γ is a single fact, then the 'conjunction' will consist of this fact alone.

[11] Hale says something similar in his 2013: 128.

fact that Socrates is wise or it is not the case that Socrates is wise, though the disjunction does not counterfactually depend upon Socrates's being wise. Similarly, that Mira is in the room fully explains that someone is in the room, thought the latter need not counterfactually depend upon the former (e.g., because Amanda might be in the room as well). Finally, arguably, my phone's being *neon* pink grounds its being pink, but its being pink does not counterfactually depend on it being this particular eye-catching, vapour-wave inspired hue. So, even if contingentists accept the S4 principle, they still have a way to de-fang the above argument.

Interesting, Hanks (2008) seems to anticipate this move. He suggests that, when it comes to explanations of necessities,

> […] there are good reasons to deny that there are multiple potential grounds for the fact being explained. Suppose there are two potential grounds g_1 and g_2 for a fact f. The problem is what to say if both g_1 and g_2 obtain. One cannot happily say that one or the other is the sole ground for f, since the choice is arbitrary. […] Nor is it plausible to say that g_1 and g_2 together are the ground for f, since that commits one to an embarrassing form of overdetermination. How could it be that g_1 wholly accounts for f while at the same time g_2 also wholly accounts for f? (Hanks 2008: 137).

If Hanks is correct, then we should accept NCF after all (at least with regards to metaphysical explanations for necessities).[12]

However, the overdetermination Hanks has in mind does not seem all that embarrassing. As Schnieder (2011: 458) points out, explanation (and, presumably, full grounding) is not *exclusive*—something can have multiple, distinct, full explanations. Mira's being in the room and Amanda's being in the room are both full explanations for the fact that someone is in the room. That snow is white and that grass is green are independent full explanations for the disjunctive fact that snow is white or grass is green.[13] There is no arbitrary choice here: each of the facts that are serving as full explanations satisfy the sufficiency relevant mentioned in the previous section. And that's how multiple facts can 'wholly account' for something.

The upshot is that Hale and Hanks' arguments should not deter would-be contingentists. Of course, it is one thing to rebut negative arguments, and another to make the positive case. The next section aims to do exactly that—or at least sketch what the *structure* of such a case would look like.

4. A Schematic Argument for Contingent Necessity-Makers

Take any fact P that is necessary. If it is such that P's obtaining is at least part of the explanation for P's being necessary, then P is a partial ground for □P. Similarly, if there is some contingent Q which is at least a partial ground for P, then, by the transitivity of partial grounds, it follows that Q is a partial ground for □P. By the definition of partial grounds, this entails that there is some (possibly empty)

---

[12] Hanks agrees that NCF fails for causal explanations.

[13] One might worry that all of the above examples concern broadly 'logical', rather than 'metaphysical' grounding. This is because, in all honesty, I often find it hard to think of non-controversial 'metaphysical' grounding cases that I find plausible (not just for this example, but generally!). So, the logical cases are what come to mind because they are (less) disputable to my ear. With that in mind, those who find particular metaphysical grounding claims plausible are welcome to plug in their own examples here—the point is, I hope, sufficiently general to accommodate.

Δ which we can add to Q to get a full ground for □P. Due to Q's contingency, the resulting plurality will satisfy our definition of a contingent necessity-maker.

More formally:

(1) P ≺ □P	Assumption
(2) Q ≺ P	Assumption
(3) Q ≺ □P	(1), (2), Trans. of ≺
(4) ◇¬Q	Assumption
(5) Q, Δ < □P	(3), def. of ≺
(6) ◇¬(Q & Δ)	(4), modal logic
(7) (Q, Δ < □P)) & (◇¬(Q & Δ))	(5), (6), & I.

Given our definition, (7) amounts to the claim that there is a contingent necessity-maker for P, consisting of the plurality Q+Δ.[14]

Of course, the argument turns on two conditionals. And clearly not every fact of the form "P is necessary" is going to be such that (i) the embedded, non-necessitated fact P is at least a partial explanation for the fact's modal status, and (ii) some contingent fact Q is at least a partial explanation for P. But, if *any* necessities satisfy these conditions—that is, if there is even *one* instance where this is the case—then the above will kick in, and it will follow that contingent necessity-makers are *possible*.

As I will argue below, I believe that a range of necessities satisfy these conditions, providing justification for the assumptions in the above argument.

Before we turn to the cases, let me briefly note that, simply by formulating this schema, the would-be contingentist has made some gains. Specifically, we're now in a position to know exactly what sort of case we should be looking for, as well as how the overall necessity-making will (if everything goes well!) play out.

5. Two Ways of Filling in the Schematic Argument

As mentioned above, I believe that there are at least two broad ranges of necessities that we can plug into the above schema—i.e., two broad ranges of metaphysical/absolute necessities that have contingent necessity-makers.

---

[14] The above schema relies on the transitivity of partial grounding, which some contest. Thankfully, this worry can be accommodated by (i) dropping the appeal to transitivity of partial grounding and (ii) instead using a weaker *full-to-partial transitivity principle*:

FTP: If A<B and B≺C, then A≺C.

FTP has intuitive appeal: if A is both relevant to and sufficient for B, and B is relevant but not sufficient for C, then A will also be relevant (though not sufficient) for C. Further, it does not entail that partial grounding is transitive.

Adopting FTP, we can re-formulate the general argument to apply to any contingent Q which is a full ground for P's truth, like so:

(1) P ≺ □P	Assumption
(2) Q < P	Assumption
(3) Q ≺ □P	(1*), (2*), FTP
(4) ◇¬Q	Assumption
(5) Q, Δ < □P	(3*), df. of ≺
(6) ◇¬(Q & Δ)	(4*), modal logic
(7) (Q, Δ < □P)) & (◇¬(Q & Δ))	(5*), (6*), & I.

Notably, the cases presented in the following section also fit this modified schema.

First, consider *necessary contingent possibilities*, i.e., necessities of the form "□◇(P)", where the embedded fact is itself not necessary. Necessities of this type are guaranteed to have contingent necessity-makers, meaning that there are at least some instances where the argument succeeds.

To see why, consider a particular instance of this necessity-type, e.g. [□◇(my dog Jobke is hungry)]. Here is one plausible story about how this complex fact is fully grounded: it is fully grounded in the plurality consisting of the possibility fact, [◇(Jobke is hungry)], together with something like a universally quantified conditional fact that is/expresses a (modal) metaphysical law:

S5: For all facts X, if ◇X, then □◇X.

Importantly, *S5* itself is not and cannot be a full ground for □◇(Jobke is hungry); it is a conditional, and we need to satisfy the antecedent as well as have the conditional in order to generate the consequent. In other words, we need both [◇(Jobke is hungry)] and *S5* together.

Consequently, [◇(Jobke is hungry)] is a partial ground for the complex necessity we started with. And, plausibly, this possibility fact is fully—and hence also partially—grounded in the contingent fact, [Jobke is hungry], together with another universally quantified conditional fact that is/expresses a (modal) metaphysical law:

T: For all facts X, if X, then ◇X.[15]

So, by transitivity, the plurality consisting of [Jobke is hungry] and *T* is a partial grounds for □◇(Jobke is hungry). And, by extension, the plurality consisting of [Jobke is hungry], *T*, and *S5* is a full grounds for □◇(Jobke is hungry). Further, the conjunction of Jobke is hungry, *T*, and *S5* is possibly false, because, no matter how frequently she begs for food, Jobke is only *contingently* hungry. Consequently, this plurality is a contingent necessity-maker for □◇(Jobke is hungry).[16]

This readily generalizes: *any* contingent fact Q that obtains will, together with *T* and *S5*, be a contingent necessity-maker for a related necessary contingent possibility, that □◇(Q). The general consequence is that, given the existence of these necessities, it follows that contingent necessity-makers are possible.

Of course, the above story turns on some hefty assumptions about how facts that are (or express) metaphysical laws factor into (these kinds of) grounding explanations. Thankfully, would-be contingentists can dodge this issue. For those who think things like laws can be involved in grounding, the above should suffice. But for those who do not, there's an alternative version of the case that runs without appealing to the idea that *S5* and *T* are ever any kind of (relevant) grounds. For the non-law-appealing version, we can simply say that, given a modal logic at least as strong as S5, it is plausible that, when it obtains, [Jobke is hungry] fully grounds [◇(Jobke is hungry)], which in turn fully grounds [□◇(Jobke is hungry)].

---

[15] Note, for roughly the same reasons as in the previous paragraph, *T* alone is not a full ground for the possibility fact.

[16] It is worth stressing that the trio of Jobke's being hungry, Reflexivity, and S5 are *all* needed to fully ground the fact that ◇(Jobke is hungry)—none are themselves full grounds: the latter pair because they are conditionals, while the former is simply too explanatorily weak.

So, by transitivity of full grounds, [Jobke is hungry] fully grounds [□◇(Jobke is hungry)] – and hence there are contingent necessity makers!

This readily generalizes: *any* contingent fact Q that obtains will, given the background modal logic, be a contingent necessity-maker for a related necessary contingent possibility, that □◇(Q). So, given the existence of these necessities, it follows that contingent necessity-makers are possible.

Second, consider *qua-object essence facts*.[17] Discussing the idea of truthmakers for true intrinsic predications like "Long (a cat) is black", Lewis suggests that, rather than appeal to Long himself, we should instead appeal to *Long qua black*— an entity that is "very like Long in most ways, but differs from him in essence. Long is accidentally black, and might have been striped, orange all over, or even green. Long qua black, however, is essentially black" (Lewis 2003: 30).

Generalizing, one could hold that, when an ordinary object *o* is contingently F, its being so brings into existence a categorical duplicate of *o* that is essentially F—*o-qua*-F—which is ontologically derivative off of the (contingent) fact that *o* is F. This suggests the following principle:

OQE: $\Box \forall x \forall F((Fx \,\&\, \Diamond \neg Fx) \rightarrow (Fx < \exists y(\blacksquare_y Fy)))$.[18]

Note that the fact in the consequent is an essence fact. This essence fact will, if we accept a Finean approach to essentialism, explain or ground the necessity of y's being F. Moreover, the consequent turns on the idea that not only does the existence of the qua-object depend on x's being F, but also that the very essence of this qua-object is grounded in this fact. Some might baulk at this idea (e.g., because they think essence facts are never explained). But this is, to my mind, part and parcel of what qua objects are (or are at least purported be): their essences are fixed by the things they are derivative of, being determined by which of those specific (contingent) properties of the original object we are focusing on when we introduce the qua object. Thus Long qua black's essence includes being black because it was Long's blackness that we decided to single out; similarly, Long qua hungry's essence says nothing about fur colour because such properties weren't part of the relevant qua object generation process.

Given *OQE*, it is easy to generate contingent necessity-makers. For example, the contingent fact that Jobke is hungry grounds the fact that it is of the essence of Jobke-*qua*-hungry that it is hungry. Then, assuming that essence facts explain necessity facts, this essence fact in turn fully explains that *necessarily*, Jobke-qua-hungry is hungry.

But what if you're a modalist about essence, and think that essence facts *just are* modal facts?[19] This actually makes the argument quicker. For *OQE* can be re-written as

---

[17] This case was suggested to me by Gideon Rosen. Any failure for it be convincing is strictly my fault.

[18] Here "∎" is Fine's (1995) essence operator; "∎_{xx}(P)" says "it is true in virtue of the essence of the *xx*s that P", where "xx" denotes a non-empty plurality of entities—in this case, just a minimal plurality of a single individual—and "P" a sentence. Note that we could, if we want to talk about cases where x's being F is potentially not contingent, we can drop the antecedent's second conjunct. However, for the present purposes, we can ignore this complication.

[19] For more on modalism see e.g. Cowling 2013, Wildman 2013, 2016, De 2020, and Zylstra 2019.

OQE-M: $\Box\forall x\forall F((Fx\ \&\ \Diamond\neg Fx) \rightarrow (Fx < \Box(\exists y(y=y \rightarrow Fy))))$.

In other words, the contingent fact that Jobke is hungry fully grounds the (broadly metaphysically) necessary fact that whenever Jobke-qua-hungry exists, it is hungry. This again is a clear case of a contingent necessity-maker.

Obviously, this readily generalizes: every qua-object that depends upon a contingently obtaining fact will generate examples of necessities explained in terms of contingencies.

6. Objections & Conclusion

These results have consequences that directly impact several core debates concerning the foundations of modality. The most obvious is that they serve as a direct response to the contingentist horn of Blackburn's dilemma: the existence of contingent necessity-makers proves that contingencies can in fact genuinely explain, rather than merely undermine, necessities.

Before concluding, I would like to anticipate three objections. Doing so will help clarify and refine the case for contingent necessity-makers.

First, it is plausible that, for every necessary P that has a contingent necessity-maker, there will be corresponding *necessary* necessity-makers. And one might worry that the existence of these necessary necessity-makers entails that the contingent ones are not genuinely explanatory.

However, I find this objection unmoving. As said before, explanation is not exclusive. A fact can have multiple, distinct, full explanations at the same time/in the same world. So, that a necessity's modal status can be explained in terms of non-contingent factors does not exclude its being explainable in terms of contingent ones too (nor *vice versa*). This is enough to blunt this line of objection.

Of course, the objector could insist that there is a *felt* inequality to these grounds—the necessary one is somehow more robust or important. But this kind of worry strikes me as another manifestation of the prejudice against contingencies having the relevant modal *oomph*, rather than a genuine issue.[20]

Second, and more substantively, one might object that I've not really answered Dummett's 'source' question. He wanted an explanation about where necessity comes from; the above is at best a story about why specific necessities have their modal status. I've identified *a* source of some necessities, not *the* source.

This is an interesting objection, but one that doesn't really undercut my argument. It is certainly correct that the above doesn't tell us much about the 'source' of necessities, if there is such a thing. However, as far as I can tell, there is no reason to think that necessity has a single source. Indeed, I think it much more plausible that necessity springs from a number of sources, some of which (if the above is correct) are contingent.

Third and finally, whatever the merit of the above arguments, the end result might be unsatisfying. To see why, let's distinguish between *pure* and *mixed* contingent necessity-makers:

Γ is a *pure contingent necessity-maker* for A iff$_{df}$

(i) $\Gamma < \Box A$, and

(ii) where $S_1...S_n$ are everything in Γ, $\Diamond(\neg S_1\ \&...\ \neg S_n)$

Γ is a *mixed contingent necessity-maker* for A iff$_{df}$

---

[20] Thanks to an anonymous referee for suggesting this line of thought.

(i) Γ< □A, and

(ii) where $S_1…S_n$ are everything in Γ, $\diamond\neg(S_1 \& … S_n)$.

The real challenge—what Blackburn was really targeting—concerns there being any *pure* contingent necessity-makers. But I've mostly only offered *mixed* necessity-makers.

Of course, this is only partially the case. Some of the instances—e.g., the necessary contingent possibilities approach that doesn't appeal to (something like) metaphysical laws, and the account of qua-object essence facts—do in fact feature pure contingent necessity-makers.

Still, one might hold out hope for a more thorough account, which provides pure contingent necessity-makers for every (metaphysical/absolute) necessity. And I have certainly not done anything like that here. That said, the above does still show that there are some pluralities that are both genuinely contingent and which serve to fully explain the modal status of certain necessities. In that sense, while I might not have met the more difficult challenge, I believe I have succeeded in addressing the one I set out to.[21]

References

Audi, P. 2012a, "Grounding: Toward a Theory of the In-virtue-of Relation", *Journal of Philosophy,* 109, 12, 685-711.

Audi, P. 2012b, "A Clarification and Defense of the Notion of Grounding", in Correia, F. & Schnieder, B. (eds.), *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press, 101-21.

Blackburn, S. 1986, "Morals and Modals", in McDonald, G. & Wright, C. (eds.), *Fact, Science, & Morality: Essays on A.J. Ayer's Language, Truth, & Logic*, Oxford: Blackwell: 119-41. Reprinted in Blackburn, S. 1993, *Essays in Quasi-realism*, Oxford: Oxford University Press, 52-74. References are to reprint.

Bliss, R. & Trogdon, K. 2014, "Metaphysical Grounding", in Zalta, E. (ed), *The Stanford Encyclopedia of Philosophy*, http://plato.stanford.edu/entries/grounding/.

Cameron, R. 2010, "On the Source of Necessity", in Hale, B. & Hoffmann, A. (eds.), *Modality: Metaphysics, Logic, and Epistemology*, Oxford: Oxford University Press, 137-52.

Correia, F. & Schnieder, B. 2012, "Grounding: An Opinionated Introduction", in Id. (eds.), *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press, 1-36.

Cowling, S. 2013, "The Modal View of Essence", *Canadian Journal of Philosophy*, 43, 2, 248-66.

De, M. 2020, "A Modal Account of Essence", *Metaphysics*, 3, 1, 17-32.

Dummett, M. 1959, "Wittgenstein's Philosophy of Mathematics", *The Philosophical Review*, 68, 3, 324-48.

Fine, K. 1995, "The Logic of Essence", *Journal of Philosophical Logic*, 24, 3, 241-73.

Fine, K. 2012a, "Guide to Ground", in Correia, F. &. Schnieder, B (eds.), *Metaphysical Grounding: Understanding the Structure of Reality*, Cambridge: Cambridge University Press, 37-80.

Fine, K. 2012b, "The Pure Logic of Ground", *The Review of Symbolic Logic*, 5, 1, 1-25.

Hale, B. 2002, "The Source of Necessity", *Noûs*, 36, 299-319.

Hale, B. 2012, "What Is Absolute Necessity?", *Philosophia Scientae*, 16, 117-48.

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

Hanks, P. 2008, "A Dilemma about Necessity", *Erkenntnis*, 68, 1, 129-48.

Krämer, S. & Roski, S. 2015, "A Note on the Logic of Worldly Ground", *Thought*, 4, 59-68.

Lange, M. 2008, "Why Contingent Facts Cannot Necessities Make", *Analysis*, 68, 298, 120-28.

Lewis, D.K. 2003, "Things qua Truthmakers", in Lillehammer, H. & Rodriguez-Pereyra, G. (eds.), *Real Metaphysics: Essays in Honor of D.H. Mellor*, London: Routledge, 25-38.

Lewy, C. 1976, *Meaning and Modality*, Cambridge: Cambridge University Press.

Litland, J. 2013, "On Some Counterexamples to the Transitivity of Grounding", *Essays in Philosophy*, 14, 1, Article 3.

Morato, V. 2014, "Explanation and Modality: on the Contingency Horn of Blackburn's Dilemma", *Erkenntnis*, 79, 2, 327-49.

Quine, W.V.O. 1936, "Truth by Convention", in Lee, O.H. (ed.), *Philosophical Essays for A.N. Whitehead*, New York: Longmans; reprinted in Quine's *The Ways of Paradox* Revised & enlarged edn. Cambridge, MA: Harvard University Press, 1976.

Raven, M. 2013, "Is Ground a Strict Partial Order?", *American Philosophical Quarterly*, 50, 2, 191-99.

Raven, M. 2015, "Ground", *Philosophy Compass*, 10, 5, 322-33.

Raven, M. (ed.) 2020, *The Routledge Handbook of Metaphysical Grounding*, London: Routledge.

Rosen, G. 2010, "Metaphysical Dependence: Grounding and Reduction", in Hale, B. & Hoffmann, A. (eds.), *Modality: Metaphysics, Logic, and Epistemology*, Oxford University Press, 109-36.

Schaffer, J. 2012, "Grounding, Transitivity, and Contrastivity", in Correia, F. & Schnieder, B. (eds.), *Metaphysical Grounding*, Cambridge: Cambridge University Press, 122-38.

Schnieder, B. 2011, "A Logic for 'Because'", *Review of Symbolic Logic*, 4, 445-65.

Sidelle, A. 1989, *Necessity, Essence, and Individuation: A Defense of Conventionalism*, Ithaca: Cornell University Press.

Skiles, A. 2015, "Against Grounding Necessitarianism", *Erkenntnis*, 80, 717-51.

Tahko, T. 2013, "Truth-Grounding and Transitivity", *Thought*, 2, 4, 332-40.

Trogdon, K. 2013, "An Introduction to Grounding", in Hoeltje, M., Schnieder, B. & Steinberg, A. (eds.), *Varieties of Dependence: Ontological Dependence, Grounding, Supervenience, Response-Dependence*, München: Philosophia Verlag, 97-122.

Wildman, N. 2013, "Modality, Sparsity, and Essence", *Philosophical Quarterly*, 63, 253, 760-82.

Wildman, N. 2016, "How to Be a Modalist about Essence", in Jago, M. (ed.), *Reality Making*, Oxford: Oxford University Press, 177-95.

Wildman, N. 2017, "A Note on Morato on Modality and Explanation", *Erkenntnis*, 82, 967-74.

Wilson, J. 2014, "No Work for a Theory of Grounding", *Inquiry*, 57, 5-6, 535-79.

Yablo, S. 1992, "Review of *Necessity, Essence, and Individuation: A Defense of Conventionalism* by Alan Sidelle", *The Philosophical Review*, 101, 4, 878-81.

Zylstra, J. 2019, "Essence, Necessity, and Definition', *Philosophical Studies*, 176, 2, 339-50.