**Contingentism in Metaphysics[[1]](#footnote-2)**

**1. Introduction**

Let us distinguish two kinds of contingentism: *entity contingentism* and *metaphysical contingentism.* Here, I use ‘entity’ very broadly to include anything over which we can quantify—objects (abstract and concrete), properties, and relations. Then *entity contingentism* about some entity, E, is the view that E exists contingently: that is, that E exists in some possible worlds and not in others.[[2]](#footnote-3) By contrast, *entity necessitarianism* about E is the view that E exists of necessity: that is, that E exists in all possible worlds. We can distinguish two views: *global entity contingentism* and *global entity necessitarianism*. Global entity contingentism is the view that for any possible E, E exists contingently. Global entity necessitarianism is the view that for any possible E, E exists necessarily.

 While entity contingentism and entity necessitarianism are views about the modal status of entities, *metaphysical* contingentism and necessitarianism are views about the modal status of metaphysical principles. *Metaphysical contingentism* about some metaphysical principle, P, is the view that P is contingent: it is true in some worlds, and false in others. *Metaphysical necessitarianism* about P is the view that P is necessary: either P is true in every world, or false in every world. We can then distinguish two views: *global metaphysical contingentism* and *global metaphysical necessitarianism.* Global metaphysical contingentism is the view that for any internally coherent[[3]](#footnote-4) metaphysical principle P, P is contingent: P is true in some worlds and false in others. Global metaphysical necessitarianism is the view that for any internally coherent metaphysical principle, P, P is necessary: it is either true in every world, or false in every world.

This chapter principally focuses on metaphysical rather than entity contingentism, though §2 briefly discusses the latter. As we will see, (§2), both global entity contingentism and global entity necessitarianism are controversial views, and most philosophers fall somewhere between these two extremes, holding that some, but not all, entities exist necessarily—a view we can call *entity moderatism*. By contrast, global metaphysical necessitarianism has, until recently, largely been the default view. It is only recently that some philosophers have argued that we should be metaphysical contingentists about at least some metaphysical principles—a view we can call *metaphysical moderatism*. §3 considers why global metaphysical necessitarianism has hitherto been so persuasive, then evaluates (§3.1) some arguments for the view before considering more recent arguments in favour of the contingency of (at least some) metaphysical principles (§3.2).

**2. Entity Contingentism**

Neither global entity contingentism nor global entity necessitarianism have proved particularly attractive, with most philosophers accepting entity moderatism. In part this is because there are two apparently compelling counterexamples—one to global entity contingentism and one to global entity necessitarianism—that jointly suggest that some view between the two extremes must be right. The first counterexample, to global entity contingentism, arises in the philosophy of maths. Mathematical Platonists hold that there exist (abstract) mathematical objects, while mathematical nominalists deny that said objects exist. Whether Platonist or nominalist, though, it is almost universally agreed that mathematical objects either exist of necessity (Hale and Wright 1992; Schiffer 1996; Resnik 1997; Shapiro 1997) or necessarily fail to exist (Balaguer 1998 and forthcoming; Rosen 2001; Yablo 2005). Hence almost all parties to the dispute are entity necessitarians about mathematical objects.

Entity necessitarianism about mathematical objects is partly motivated by the widely shared belief that mathematical claims are either true, or false, of necessity. If mathematical objects exist in *any* world, then, surely they are what make (true) mathematical claims true in that world. But on the plausible assumption that mathematical claims are made true *by the same kind of thing* in every world, it follows they must be made true by mathematical objects in every world. Moreover, since mathematical claims are true of necessity, it must be that the very same mathematical objects exist in every world (and make those claims true). Likewise, if there is a world in which mathematical objects do not exist, then it must be that *something else* makes (true) mathematical claims then true in that world. Hence, by similar reasoning, since whatever makes mathematical claims true in a world that lacks mathematical objects will make them true in all worlds, we should conclude that mathematical objects necessarily fail to exist.

The second counterexample, this time to global entity necessitarianism, is the existence of ordinary medium sized dry goods such as you and I (and goats, toasters and cars). In all these cases, it seems, things would not need to have gone very differently for the relevant entities to have failed to exist. But if that is right then entity contingentism is true of a whole range of entities, and hence global entity necessitarianism is false.

 There are, however, those who resist these counterexamples. There are entity contingentists about mathematical objects (Colyvan 1998, 2001; Field 1993) who think we ought to posit mathematical objects in our world if and only if they are indispensable to the best scientific theories of our world. Moreover, they argue, there are possible worlds in which mathematical objects *are* dispensable to the best scientific theory—worlds in which we can do science without numbers (Field 1980)—and worlds in which we cannot do science without numbers (Colyvan 2001). Hence we ought to conclude that there exist numbers in some, but not all, possible worlds. If the most compelling counterexample to global entity necessitarianism is the existence of mathematical objects, then resistance to this counterexample could deliver global entity contingentism.

 On the other side of the modal fence are those who reject the second purported counterexample: views that deny the contingency of ordinary objects. There are two routes to this conclusion. On the first there is only one possible way things could be—the way they are—and so whatever actually exists, trivially exists of necessity. This view entails both global entity necessitarianism and global metaphysical necessitarianism. On the second, the same objects, properties, and relations *exist* in every world, but what differs between worlds is which objects are concrete, which properties are instantiated, and which relations obtain (Williamson 2010; 2013, Linsky & Zalta 1994)). Here is a helpful analogy. According to the view that there is only one way things could be, there exists a single theatre, with a single (small) cast of characters, performing the only possible play. By contrast, on the second view there exist many theatres, and backstage in each theatre there exists a single, very large, cast of abstract characters. But each theatre has a different play running, and which characters come out on stage—and hence which are concretely realised—varies depending on which play is running. (Strictly speaking, for Williamson there are three classes of objects: concrete ones (those on stage) non-concrete ones (those that are back-stage, but could come out on stage (but don’t) and abstract one (those that never come out on stage, and always remain behind the scenes).

If the only real threat to global entity necessitarianism is the apparent contingency of ordinary objects, then this view represents a way of defending global entity necessitarianism.

 Nevertheless, despite resistance to each counterexample, by and large philosophers have endorsed entity moderatism. As we will see, however, the same reasoning has not prevailed in the case of metaphysical principles.

**3. Metaphysical Contingentism**

When we ask whether we ought be contingentists or necessitarians about some, or all, metaphysical principles, which principles do we have in mind? In some sense the principles at issue are a motley crew covering a wide variety of areas of metaphysics. They include, but are not limited to, the following:

* *composition principles*—principles that tell us under what conditions some xs compose a y (van Inwagen 1990).
* *property principles*— principles that tell us what it is to be a property (whether properties are immanent universals (Armstrong 1978), tropes (Campbell 1997; Maurin 2002), or whether nominalism is true (Lewis 1983; Rodriguez-Pereyra 2002)).
* *persistence principles*—principles that tell us what it is for an object to persist through time, (whether objects perdure (Lewis 1986; Sider 2001) or endure (Johnston (1987; Thomson (1998).
* *time principles*—principles that tell us about the nature of time (whether time is characterised by the instantiation of irreducibly tensed A-properties (Zimmerman 2005; Bourne 2006), or merely B (or C)-relations (Price 1996; Mellor 1981).
* *law of nature principles*—principles that tell us what it is to be a law of nature (whether laws are generalisations that feature in the most virtuous true axiomatisation of all the particular matters of fact (Lewis 1986) or are relations of necessity that hold between universals (Armstrong 1983; Tooley 1977).[[4]](#footnote-5)
* *object principles*—principles that tell us what it is to be an object (whether objects are bundles of properties (Ehring 2011;), or substrata with properties attached; whether objects are identical with regions of space-time (Schaffer 2009) or distinct from them (Gilmore 2014); whether composite objects are identical with pluralities of simples (Cotnoir 2014; Bohn 2009) or distinct from said pluralities (Cameron 2014; Sider 2007a).
* *priority principles*—principles that tell us what ontologically depends on what (see Schaffer 2009b) (for instance whether wholes depend on their parts (Sider 2007b) or parts depend on the whole (Schaffer 2007b)).

We can think of many (or perhaps all) such principles as answering the question, for particular metaphysical kinds of thing, *what is it to be that kind of thing?*  Alternatively, we might think of them as *metaphysical laws* (so long as (for now) we leave open the modal status of said laws). In what follows I will take a ‘we known ‘em when we see ‘em’ approach to these principles: for while there is some disagreement, around the edges, as to which principles ought to count as metaphysical principles, there is enough agreement for us to proceed without a rigorous characterisation. Moreover, doing so heads off an argument for a very uninteresting kind of global metaphysical necessitarianism. That argument proceeds as follows. It is analytic that metaphysical principles are principles of complete generality—i.e. principles that are true of necessity—and so any purported metaphysical principle that is not true of necessity is not really a metaphysical principle at all. Accepting this characterisation of metaphysical principles guarantees the truth of global metaphysical necessitarianism, but only at the cost of entailing that should it turn out that all of the principles just introduced are contingent, then none of them is, in fact, a metaphysical principle. Indeed, it is consistent with this characterisation that it turn out that there are no metaphysical principles at all! This seems like an objectionably cheap way to purchase global necessitarianism, and so I set it aside.

 Until relatively recently something close to global metaphysical necessitarianism has been the overwhelming orthodoxy.[[5]](#footnote-6) It might seem puzzling that global metaphysical necessitarianism has fared so much better than global entity necessitarianism. In part, it has fared better because global metaphysical necessitarianism is not as ontically committing as global entity necessitarianism. Metaphysical principles tell us what it is for there to be a certain kind of thing, and so can be true in worlds in which there are none of those things. It can be true (and necessarily so) that what it is to be a dog is to be a *Canis familiaris* (say) and it also be true that dogs exist contingently. Likewise the metaphysical principle that says that laws of nature are relations of nomic necessitation between universals can be true, of necessity, even though there are worlds with no such relations—for there can be worlds in which there are no laws.

But that can’t be the whole story. There has to be a positive *reason* to endorse global metaphysical necessitarianism. The following section considers a number of arguments in favour of the view. To the extent that these arguments fail we have little reason to accept global metaphysical necessitarianism.

**3.1 Arguments for global metaphysical necessitarianism**

Few explicit arguments in favour of global metaphysical necessitarianism have been made. Recent arguments about the modal status of metaphysical principles have typically focussed on trying to show that metaphysical contingentism is true of at least some of the principles (and hence global metaphysical necessitarianism is false). Nevertheless, it is worth trying to articulate arguments for metaphysical necessitarianism that are implicit in the literature to see whether any is plausible.

**3.1.1. The argument from ground**

Let’s begin with the argument from ground: an argument that appeals to the nature of ground to show that metaphysical principles hold of necessity. Roughly, the idea here is that metaphysical principles are best understood as general claims about what grounds what.[[6]](#footnote-7)

1. Metaphysical principles are best understood as claims about what it is to be a G.
2. Claims about what it is to be a G are best understood as claims of the form: being F is what it is to be G.
3. If being F is what it is to be G, then necessarily, x is F iff x is G.
4. Therefore, necessarily, x is F iff x is G.[[7]](#footnote-8)

Then the question arises: how should we interpret (2)? What does it mean to say that being F is *what it is* to be G? The most natural interpretation is either that F-ness is identical with G-ness, or that F-ness is the essence of G-ness. In either case we don’t really need to appeal to ground per se. So I consider each of these options in the next section.

**3.1.2. The arguments from identity and essence**

Let’s consider how two arguments, in which we interpret the claim that being F is to be G, in terms of identity (first) and essence (second).

*The argument from identity*

1. The metaphysical principles are best understood as identity statements.
2. Identities hold (or fail to hold) of necessity.
3. Therefore, the metaphysical principles are necessary.

*The argument from essence*

1. The metaphysical principles are best understood as claims about essences.
2. Claims about essences hold (or fail to hold) of necessity.
3. Therefore, the metaphysical principles are necessary.

Here, the supposition is that metaphysical principles are best understood as expressing claims of the form ‘X is Y’, but according to the identity argument we interpret ‘X is Y’ as a claim about identity (i.e. that X = Y) and in the essence argument as the claim that X is essentially Y, or that Y is part of the essence of X. Since both identity statements and essential truths hold of necessity, (if at all) [[8]](#footnote-9), in either case we discover that necessary, X is Y. As we will see, it doesn't much matter, for present purposes, which picture we go with. To see this, let’s start with the former, identity, picture. Before we do so, however, it is important to notice something that both approaches share and which will become important in what follows. Consider the case of water and H2O.

 Notice that whether it is necessary that water is H2O because water = H2O, or because water is essentially H2O, that tells us nothing about whether there are worlds in which there is something very like water except for its chemical composition. Indeed, it is typically assumed that there is such a possible substance—twater—which is superficially and functionally just like water except it is made of, say, XYZ. In discovering that water is H2O we discover that XYZ is not water. By parity, then, suppose we discover that there are actual tropes, and so ‘properties are tropes’ is actually true. It does not follow that there are no possible entities that play the property role— which, is, say, grounding objective similarities and differences, grounding causal powers, determining natural laws or regularities, and connecting (in some way) to predicates in natural language—and are not tropes. If it should turn out that ‘properties are tropes’ ought to be interpreted either as ‘properties = tropes’ or as ‘properties are essentially tropes’, this tells us that if there are possible immanent universals, *then they are not properties,* just as if there is XYZ, it is not water. It doesn't tell us that there are no immanent universals.

 Let's return to the identity interpretation. According to a broadly Humean tradition, the discovery of identities involves two components: empirical discoveries about the actual world, combined with *a priori* claims about the semantics of the relevant term.[[9]](#footnote-10) In the case of “water” the *a priori* component is something like the following: “water” refers, *in every world,* to whatever is *actually* the watery stuff. It is part of the semantics of “water” that “water” rigidly refers to whatever it actually refers to. Prior to knowing what microstructure of the actual watery stuff, we could have known, *a priori,* that *whatever* that structure is, water is, necessarily, that stuff.

 The virtue of this Humean view is that we don’t need to know which metaphysical principles are true to know their modal status: we only need to know the reference fixing descriptions of the terms that feature in the principles, and these can be known *a priori.* Consider a principle of the form ‘X is Y’. There are a number of different reference fixing descriptions that would entail that X = Y. Here are two that are (at least in the abstract) plausible. Option 1: it is *a priori* that ‘X’ refers, of necessity, to whatever ‘X’ actually refers to. Option 2: it is *a priori* that if ‘Y’ possibly refers, the ‘X’ refers to what ‘Y’ refers to, otherwise ‘X’ refers to Z. In the former case if ‘X’ actually refers to Y, then necessarily, X is Y, and in the latter if ‘Y’ possibly refers, then necessarily, X is Y.[[10]](#footnote-11)

Is it plausible that any of the metaphysical principles have some such *a priori* semantic claim as part of their referencing fixing description?

Consider the principle that says that laws of nature are relations of nomic necessitation between immanent universals. Might it be *a priori* true that ‘laws of nature’ refer to whatever metaphysical kind of things are actually the laws of nature, and necessarily so? Suppose that rather than discover that there actually exist relations of nomic necessitation between immanent universals, instead we had discovered that the actual laws are the best systematisation of particular matters of fact. On the assumption that there are possible worlds with relations of nomic necessitation between universals, it seems unlikely that we would have concluded that, necessarily, laws are best systematisations. For then even in worlds with relations of nomic necessitation between universals, the laws are best systematisations, not those relations of necessitation. But it’s not overly plausible that if there are worlds with relations of nomic necessitation, that those relations are not laws of nature. That’s because, in general, the reason philosophers think that laws are not relations of nomic necessitation is because they think there are no relations of nomic necessitation (and, perhaps, no universals to be thus related) not because they think there are, or possibly are, such things, but they aren’t laws of nature! So if there are, possibly, such things, we’d be tempted to say that even if *actually*, laws are best systemisations (because actually there are no relations of nomic necessitation) nevertheless, laws are relations of nomic necessitation in worlds where there are such relations.

So consider the second referencing fixing option. Perhaps it is *a priori* that ‘laws of nature’ necessarily refer to relations of nomic necessitation if relations of nomic necessitation are possible, and otherwise refer to some other metaphysical kind. One might think this if one thinks that relations of nomic necessitation are the best deserver to be what laws of nature are, and so if there are possibly such things, then those are the laws; nevertheless, if there are necessarily no such things then the laws must be something else (perhaps, say, the best systematisation of matters of fact) assuming we think there is some second-best deserver. If not, we have to conclude that error theory about laws is true. Since a best systems theory of laws seems like a good enough deserver, likely we will say that if, of necessity, there are no relations of nomic necessitation, then laws are just best systematisations. But if there are, possibly, relations of nomic necessitation, then those relations are, of necessity, the laws.

 In fact, something like that sounds plausible. If there are worlds with relations of nomic necessitation we might be inclined to say that worlds that lack such relations don't *really* have laws at all. Perhaps there *appear* to be laws because there are regularities, but in such a world these are *mere* regularities. Nothing is really governing the dynamical unfolding of said worlds. If that is right, then the principle ‘the laws of nature are relations of nomic necessitation’ is necessary (if said relations are possible).

The problem for the global metaphysical necessitarian is that if she thinks the necessity of every metaphysical principle issues from its being an identity, then she needs to show that *all* metaphysical principles contain expressions with referencing fixing description that function like these, and it is far from clear that this is plausible.

Consider the principle that says that properties are immanent universals. In order for that principle to be necessary, something like either of the following must be true *a priori:* ‘properties’ refer to whatever metaphysical kind of thing actually plays the property role and necessarily so, or ‘properties’ refer, of necessity, to immanent universals if they are possible, and if not, refer to things of metaphysical kind K. Neither of these looks very plausible because properties just are the things that do certain jobs—the things that ground objective similarities and causal powers, and determine natural laws or regularities, and connect to predicates in natural language. It’s hard to see how something could do all those things and not be a property. In fact, it seems as though something like the following might be true *a* *priori*: whatever plays the property role is a property.[[11]](#footnote-12) If so, then if different kinds of thing play the property role in different worlds, it follows that any property principle is contingent.[[12]](#footnote-13)

 The same sort of reasoning holds if we think that the metaphysical principles are best interpreted as claimed about essences. For if we think, for instance, that whatever plays the property role in some world is a property, then we must reject the claim that if actually immanent universals play that role then, essentially, properties are such universals. In general the essentialist interpretation of the metaphysical principles will seem implausible whenever more than one kind of metaphysical thing *can* equally well do some metaphysical job, and we cannot rule out that all those metaphysical kinds are possible. Since there are such cases, it is plausible that neither the argument from essence nor from identity will secure the conclusion that global metaphysical necessitarianism is true. So let us consider some further arguments for that conclusion.

**3.1.3. The argument from *a priority***

Let’s now consider an argument from a priority. Roughly, the idea is that since metaphysics is an a priori endeavour, and since a priori reason can only furnish us with necessary truths, metaphysical principles must be necessary.

1. We use *a priori* reason to determine which metaphysical principles are true.
2. *A priori* reason can only determine the truth (or falsity) of necessary claims.[[13]](#footnote-14)
3. Therefore, the metaphysical principles are necessary.

Premise (2) says, in effect that if it’s *a priori* then it’s necessary. There are good reasons to deny (2) in its full generality (see Kripke 1980) since there are *a priori* truths involving indexicals (such as ‘I am here’) that are clearly contingent.[[14]](#footnote-15) Still, if indexical claims are the only exception to the necessity of *a priori* truths, then an amended version of (2) might hold, to wit (2\*): *a priori* reason that does not involve indexicals can only determine the truth (or falsity) of necessary claims. Then if we add (3\*): the metaphysical principles do not involve indexicals, we can reach the conclusion (3) therefore, the metaphysical principles are necessary. Not everyone accepts that the only instances of *a priori* contingencies arise from indexicals (see Williamson 1986 and Hawthorne 2002), but even amongst those who think there is deeply contingent *a priori* knowledge, it seems plausible that knowledge of metaphysical principles is not this kind of knowledge. So if our knowledge of metaphysical principles is entirely *a priori*, we might still make a case for a version of the argument from *a priority.*

 The problem is that while a lot of reasoning about metaphysical principles is *a priori*, a good deal of it also appeals to a range of empirical facts, including facts about the physics of our world, folk intuition and semantics, the content of our phenomenal states, and so on. That is because often we evaluate competing metaphysical principles by determining which best meets a complex set of desiderata that include the extent to which a principle preserves or explains our folk intuitions, perceptions and phenomenologies, and folk semantics, is simple, parsimonious, explanatory and consistent with our best science. Such reasoning might afford us *a priori* knowledge of some range of conditional claims: if things are thus are so, then P (where P is some metaphysical principle) for a range of ways that things can be. Perhaps these conditionals are necessary. But even if they are, it does not follow that the metaphysical principles themselves are necessary. For it can be necessary that if things are thus and so, then P is true, and yet, if it is contingent that things are thus and so, it can be contingent that P is true. Quite generally then, since *a priori* reasoning *alone* does not, in general, yield the metaphysical principles, then we have little reason to suppose that (2) is true. Perhaps sometimes *a priori* reasoning alone yields knowledge of metaphysical principles, (and so perhaps in those cases we have reason to think that the principles hold of necessity) but not all knowledge of these principles is achieved by a priori reasoning alone, as (2) requires.

 Still, if this is indeed how metaphysical theorising goes, then there is another argument to be considered, which I call the argument from virtue:

**3.1.4. The argument from virtue**

The next argument seeks to show that the metaphysical principles are necessary by appealing to a certain methodology used in metaphysis: namely that we appeal to certain virtues when determining which theories are true. Here is that argument:

1. We determine which metaphysical principles are true by determining which are most virtuous
2. Whichever metaphysical principles are actually most virtuous are, necessarily, most virtuous.
3. Therefore, whichever metaphysical principles are actually true are necessarily, true.

The problem, however, is that there seems little reason to think that (2) is true. It may often be that since what needs explaining varies between worlds, which principles are the most virtuous also varies. Consider competing principles about time. Some A-theorists argue for the A-theory on the grounds that because it better explains our temporal phenomenology (see Baron et al 2015) it is overall most virtuous. Even if that is so, it is plausible that there are worlds in which temporal phenomenology is very different, and hence better explained by some other metaphysical principle. Or suppose that the B-theory is actually most virtuous because it best accommodates empirical facts about our world, namely the truth of general relativity.[[15]](#footnote-16) Assuming there are worlds in which general relativity is false, however, there may be worlds in which the A-theory best accommodates empirical facts and is overall more virtuous. Given the variability of what needs explaining in different worlds it seems unlikely that (2) is true.

 But suppose it were true that metaphysical principle P is most virtuous in every world. Should we conclude that P is necessarily true?[[16]](#footnote-17) Not obviously. We hope that in our world virtue is a guide to truth. Perhaps we even have inductive reason to think it is. But unless we posit a necessary connection between virtue and truth, we should expect that in some worlds the virtuous will come apart from the true. It’s hard to see, though, what could ground the presence of such a necessary connection. If being true is distinct from being the most virtuous theory, as surely it is, then the presence of such a necessary connection is mysterious. Given this, we should conclude that P’s being most virtuous in *w* is merely *evidence* of P’s being true in w. But then even if P is most virtuous in every world, this is not reason to suppose P to be true of necessity; instead, it is reason to conclude that, likely, in some worlds the evidence is misleading. Of course, the same reasoning holds true for contingency: the fact that *different* competing principles are most virtuous in different worlds does not, if the previous reasoning is right, give us reason to conclude that those principles are contingent (and so the analogous reasoning wouldn’t give us reason to be entity contingentists about mathematical objects). So consideration of virtue doesn’t seem to tell us anything about the modal status of the metaphysical principles.

**3.1.5. The no contingent difference-maker argument**

The next argument appeals to the idea that metaphysical principles do not have contingent difference-makers. Difference-makers, are, very roughly, things in the world that make a difference. They are often appealed to in the context of causation, where the idea is that a cause is something that makes a difference to what happens (the effect) so that what did happen wouldn’t have happened without it. So what makes something, say P, a difference-maker to Q, is that without P, Q wouldn’t have happened. We expect contingent things to have contingent difference makers. After all, if what makes the difference between P obtaining, and P not obtaining is something necessary (say Q), then Q obtains in every world, and so we’d expect P to obtain necessarily. So if P is contingent, we’d expect to find that that it has a contingent difference-maker. Here is the argument:

1. A metaphysical principle is contingently true only if it has a contingent difference-maker.
2. No metaphysical principle has a contingent difference-maker.
3. Therefore, no metaphysical principle is contingent.[[17]](#footnote-18)

Since (1) is plausible, the weight of the argument rests on (2). Why accept (2)? Hale and Wright (1994) offer something like this argument (appropriately amended) for entity necessitarianism about mathematical objects. Whether (2) is plausible depends on how one is thinking about difference-makers. Hale and Wright clearly suppose that a contingent difference-maker (for the existence of mathematical objects) needs to be a contingent *non-mathematical* thing whose existence in some worlds *grounds* or *explains* the existence of mathematical objects in just those worlds. But one might hold that the existence of mathematical objects is not grounded in some further (non-mathematical) contingency, and that the contingent existence of mathematical objects is its own difference-maker.

 In the case of metaphysical principles, then, one might look for a contingent difference between worlds that *grounds,* or *explains*, a particular principle’s being (contingently) true. So, for instance, if objects persist by perduring in some worlds, and enduring in others, then one is looking for a difference between worlds that explains this difference in the way objects persist. By contrast, one might simply look for a contingent difference between worlds in which objects endure and worlds in which objects perdure, and *that* difference can simply be the fact that objects endure in one world, and perdure in another.

While it is plausible that whether or not mathematical objects exist might not be grounded in some further contingent features of a world, it is less plausible that the truth of metaphysical principles is not grounded in further facts. To think otherwise is to think that it is a brute matter *which* principles are true in a world. While one could think this, let’s suppose we don’t. Then we can understand the call for contingent difference-makers as a call for an explanation of the contingent truth of a metaphysical principle—an account of what grounds the contingent truth of said principle.

 Let’s consider an example. Suppose principles of composition—which specify the conditions under which composition occurs—are contingent. One might initially think that there *is* something that can vary from world to world and ground the truth of different composition principles: namely the distribution of simples. Perhaps in some world simples are arranged in such a way that they ground its being true that every plurality of disjoint objects composes some object, (i.e. unrestricted composition is true),[[18]](#footnote-19) while in some other world simples are arranged in such a way that they ground its being true that no plurality of disjoint objects composes any object (i.e. mereological nihilism is true).[[19]](#footnote-20)

Quite generally, one might think, if metaphysical principles are principles about what grounds what, and if grounding relations are super-internal[[20]](#footnote-21)—if facts about what grounds what are grounded in the grounds themselves—then worlds with different grounds will generate different grounding relations, and different derivative facts, and hence in at least some such cases different metaphysical principles will be true at different worlds. But if so, (2) is false.

 On further reflection, however, this reasoning is tenuous. We can grant that in one world the arrangement of simples is such that every plurality of disjoint objects composes some object, and that in some other world the arrangement of simples is such that no plurality of disjoint objects composes some object. Call the way the simples are arranged in the first world the *R-way*. The reason the simples compose in that world is because they are arranged in the R-way. Suppose, further, that in the closest world in which the simples *aren’t* arranged in the R-way, those simples fail to compose anything. In fact, that’s why they don’t compose anything in the second world. Then even though

in first world unrestricted composition is true and in the second nihilism is true, the nihilistic metaphysical principle (to wit that disjoint objects never compose) is not true in the second world, and the unrestricted composition principle (to wit, that every set of disjoint objects composes) is not true in the first world. Rather, it seems as though the principle that says that things must be arranged in the R-way to compose, is true in both worlds. It is just that in one world the simples are arranged in the R-way, and in the other they are not. In each case the *principle* is the same, but what is *generated* via that principle—which composites there are—varies.

 This suggests that if composition principles really are contingent, then it must be because there exists a pair of worlds, w1 and w2, such that (i) in w1 there exists a plurality of simples arranged X-wise, and those simples compose something and (ii) in w2 there exists a plurality of simples arranged X-wise, such that that plurality is an intrinsic duplicate of the plurality in w1,[[21]](#footnote-22) and such that in w2 those simples fail to compose anything. But if *that* is what contingentism about compositional principles requires, then it is difficult to see what could make for the difference between *w*1 and *w2*. But it is plausible that whether or not some plurality of simples composes something should be a function of the internal relations between, and intrinsic properties of, those simples. While one might well think that *what* is composed is in part a function of extrinsic properties and relations, it seems more difficult to suppose that whether or not anything is composed is a function of these properties and relations.[[22]](#footnote-23) If so, it is difficult to see what could ground the difference between composition occurring in *w*1 and failing to occur in *w2* .

 If all the metaphysical principles are relevantly like composition principles in this respect, then (2) is plausible. Are they? Not obviously. If there being, say, tropes in one world and not in another can be a brute matter not explained by some other contingent difference-maker (which seems plausible) then there being tropes in some worlds, and not others, is enough of a difference-maker to explain why properties are tropes in some, but not all, worlds. At the very least, it is far from obvious that (2) is true for all metaphysical principles.

**3.2 Arguments for global metaphysical contingentism**

So far, then, we have not found any compelling arguments for global metaphysical necessitarianism. In what follows I consider arguments for global metaphysical contingentism.

**3.2.1. The argument against necessity**

The following argument aims to show that there is no plausible source of necessity for metaphysical principles, and so they must be contingent. The argument proceeds as follows:

1. There are only two sources of necessity: analyticity and *a posteriori* necessities of identity or essence.
2. The metaphysical principles are neither analytic, nor are they *a posteriori* necessities of identity or essence.
3. Therefore the metaphysical principles are contingent.[[23]](#footnote-24)

Let’s grant (1) (though one might deny it). Roughly, the idea is that a proposition is necessarily true, this must either be because it is true as a matter of meaning (analyticity) or because although it is true *a posteriori,* it is a matter of identity or essence (and hence is true of necessity). Instead, I will focus on (2). It certainly looks implausible that *all* metaphysical principles are analytic: it surely cannot be a matter of meaning that laws are relations of nomic necessitation, or that the things that ground similarities and causal powers are, say, tropes. But perhaps certain mereological and locational principles[[24]](#footnote-25) are analytically true and, more controversially, perhaps it is analytic that only some ways of arranging simples compose something.[[25]](#footnote-26) If some metaphysical principles are analytic then (2) is false.

In the previous section we considered whether the metaphysical principles are *a posteriori* necessary claims of identity or essence. While we concluded that *some* principles are not plausible candidates to be claims of identity or essence, we did not rule out that no principles can plausibly be interpreted as claims of identity or essence. And if some can, then (2) is false.

So while it is plausible that at least some (and perhaps most) principles are neither analytic nor *a posteriori* necessary, it is not obvious that none are. If so, the argument fails. At best, an argument like this shows that *some,* or perhaps *most,* principles are contingent, and hence supports moderate metaphysical contingentism.

**3.2.2. The argument from conceivability**

The following argument appeals to conceivability as a method for determining what is possible, and aims to show that since we can conceive both of any metaphysical principle being true in some world and of it being false in some other world, it follows that the principles must be contingent.

1. Appropriate conceivability is a good guide to possibility.
2. For each metaphysical principle, we can appropriately conceive of that principle being true in some world, and appropriately conceive of it being false in some other world.
3. Hence for each principle, it is possible that the principle is true and possible that it is false.
4. Therefore, each principle is contingent.[[26]](#footnote-27)

Though it is controversial exactly what role conceivability ought play in modal epistemology, almost everyone agrees that it will feature in some form or other. Chalmers (2002) and Rosen (2006) both defend the view that x is possible just in case x is in some way *appropriately* conceivable. So if both x and not x are appropriately conceivable then both x and not x are possible and x is contingent. Chalmers spells out appropriate conceivability in terms of *ideal positive* conceivability, and Rosen in terms of *correct* conceivability. Roughly speaking, both proposals hold that appropriate conceiving is conceiving that is consistent with a full specification of the way the actual world is (Chalmers) or with the natures of the kinds concerned (Rosen). So suppose we are trying to appropriately conceive of water being XYZ. We will find ourselves unable to do this once we have specified the microstructure of actual water. For having so specified, it will no longer be consistent with this specification that water is something other than H20.

 This brings us back to the arguments from identity and essence. Insofar as a metaphysical principle appears to be a good candidate to be an *a posteriori* necessity of identity or essence, this will be because one cannot appropriately conceive of both its truth and its falsity. So the argument from conceivability is really the flip side of the arguments from identity and essence: the former claims that for each principle we *can* appropriately conceive of it, and its negation; the arguments from identity and essence claim that for each principle we *cannot* appropriately conceive of both it, and its negation.

 As we have seen, though, it not clear that the principles stand or fall together. Plausibly, some are claims of identity or essence, and it is impossible to appropriately conceive both their truth and their negation, and others are not, and it is possible to appropriately conceive both their truth and their negation. So the argument from conceivability is not sound, though a similar, amended, argument may show that *some* metaphysical principles are contingent.

**4. Conclusion**

Consideration of these arguments suggests that if global metaphysical necessitarianism is true, then it is not because there is a single source of necessity for all the metaphysical principles. Instead, it must be because some are necessarily true because they are analytic, and some because they are identity claims or claims about essences, and some for other reasons. If, however, the source of this necessity varies, it is unlikely that it will turn out that all metaphysical principles are necessary. So, at least at this stage of the investigation, the arguments considered here, jointly, suggest that metaphysical moderatism is the most plausible view. Then there is work to be done in establishing the modal status of each metaphysical principle.

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2. By talk of possible worlds I intend to pick out the broadest sphere of ‘real’ worlds: worlds that represent ways things *really could be*. Sometimes this sphere is known as the metaphysically possible worlds, and sometimes as the logically possible worlds. [↑](#footnote-ref-3)
3. That is, the principle itself is not internally contradictory. [↑](#footnote-ref-4)
4. This is to be distinguished from the claim that the laws of nature are contingent in the sense that there are different laws of nature in different worlds (see Schaffer (2005) for a defense of that widely held view). [↑](#footnote-ref-5)
5. See Schaffer 2007 and Sider 1993 on composition; Sider 2001 on persistence; McTaggart 1903; Markosian 2004; Bigelow 1996; Cusbert and Miller 2017 on the modal status of theories of time; Miller 2013 on the modal status of the nature of properties and Schaffer (2007) on the modal status of priority principles.). Recent notable dissenters from this orthodoxy have been Parsons 2006, Cameron 2007 and Balaguer (forthcoming) who defend the contingency of accounts of composition, Rosen 2006 who defends the contingency of the nature of properties; Lewis 1999 p227 who defends the contingency of accounts of persistence; and Bourne (2006), Balaguer (2014) and Le Bihan (2014) who defend the contingency of time’s being tensed and Miller (2009) who offers a general defence of contingentism. Finally, Wildman (2018) develops a contingentist account of fundamentality itself. [↑](#footnote-ref-6)
6. I’m taking grounding to an asymmetric, transitive, irreflexive relation of ontological dependence that obtains between world facts, (though for these purposes it doesn’t really matter if the relata of grounding relations are, instead, objects and properties rather than facts). See Trogdon (2013) for an overview of grounding. [↑](#footnote-ref-7)
7. With thanks to Dan Korman for this suggestion. [↑](#footnote-ref-8)
8. One might deny this in some cases. See for instance McDaniel (2017) chapter 9. But I will suppose, for present purposes, that it is so. [↑](#footnote-ref-9)
9. Jackson (1998, 2004); Chalmers (2004). [↑](#footnote-ref-10)
10. This is an example of what is sometimes known as a conditional analysis. See Hawthorne (2001) and Braddon-Mitchell (2003) for views of this kind applied to the analysis of phenomenal concepts. There the idea is, roughly, that it might be that our concept of qualia is such that if actually there are dualistic mental states to which we have certain direct introspective access, then those states are qualitative states and necessarily so, but if there are no such states (because physicalism is true) then some kind of functional states turn out to be the qualitative states. [↑](#footnote-ref-11)
11. See Miller (2013) for an argument of this kind. [↑](#footnote-ref-12)
12. This leaves open that the necessitarian might try to show that although, say, tropes exist, they cannot play the property role because (for instance) there are aspects of that role that they are ill-equipped to play. [↑](#footnote-ref-13)
13. Notice this is consistent with there being necessary claims that are not *a priori*. [↑](#footnote-ref-14)
14. What are sometimes known as superficially contingent *a priorities.* [↑](#footnote-ref-15)
15. See Putnam (1967) and Savitt (2000). [↑](#footnote-ref-16)
16. For consideration of this worry see Miller (2009b). [↑](#footnote-ref-17)
17. Hale and Wright (1994) offer something like this argument in the context of the modal status of mathematical objects. [↑](#footnote-ref-18)
18. See van Cleve (2008), Rea (1998) and Sider (2003) for a defense of unrestricted composition. [↑](#footnote-ref-19)
19. See Sider (2013) and Contessa (2014) for a defense of mereological nihilism. [↑](#footnote-ref-20)
20. Bennett (2011) and de Rossett (2013). [↑](#footnote-ref-21)
21. Where plurality, x, is an intrinsic duplicate of plurality, y, if and only if every one of the xs has an intrinsic duplicate in y, and no one of the ys fails to have an intrinsic duplicate in the xs, and the arrangement of the ys is the same as the arrangement of the xs (i.e. the internal relations that obtain between the xs are duplicated in the internal relations that obtain between the ys). [↑](#footnote-ref-22)
22. Of course, the contingentist could deny this, and offer an account of why composition is not (or is not necessarily) a function of intrinsicality in this way. [↑](#footnote-ref-23)
23. Arguments like this can be found in Parsons (2006); Cameron (2007); Miller (2009) and Balaguer (2014). [↑](#footnote-ref-24)
24. See Kleinschmidt (2016) and Saucedo (2011) for consideration of this idea. [↑](#footnote-ref-25)
25. See Thomasson (2007). [↑](#footnote-ref-26)
26. See for instance Balaguer (forthcoming a and forthcoming b). [↑](#footnote-ref-27)