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## Defending Contingentism in Metaphysics

Kristie MILLER<sup>†</sup>

1

### ABSTRACT

Metaphysics is supposed to tell us about the metaphysical nature of our world: under what conditions composition occurs; how objects persist through time; whether properties are universals or tropes. It is near orthodoxy that whichever of these sorts of metaphysical claims is true is necessarily true. This paper looks at the debate between that orthodox view and a recently emerging view that claims like these are contingent, by focusing on the metaphysical debate between monists and pluralists about concrete particulars. This paper argues that we should be contingentists about monism and pluralism, and it defends contingentism against some necessitarian objections by offering an epistemology of contingent metaphysical claims.

### 1. Introduction

First-order metaphysics is supposed to tell us about the metaphysical nature of our world: under what conditions composition occurs; how objects persist through time; whether properties are universals or tropes, and so on. It is widely held that these kinds of first-order metaphysical truths are not just truths about our world, but are truths about every world: they are metaphysically necessary. By metaphysical possibility I intend to include the least restrictive sphere of genuine possibilities that does not include the merely epistemic possibilities. Thus although there might be a difference between what is logically or conceptually necessary and what is metaphysically necessary insofar as there is a difference in what grounds those modal facts, the sphere of the metaphysically possible worlds is not a proper sub-set of the sphere of logically or conceptually possible worlds.

These sorts of metaphysical claims routinely assumed to be necessary include claims about the conditions of composition, the nature of persistence, the nature of properties, the existence of abstract objects and the nature of the laws of nature (although usually not the token laws). This paper looks at the debate between the orthodox view, that such claims are necessary, and a recently emerging view that they are contingent, by focusing on a metaphysical debate that has been receiving increasing attention. This is the debate between monists and pluralists about concrete particulars. The traditional view is pluralism, the claim that, very roughly, there exist many concrete particulars. More recently, however, a small number of

<sup>†</sup> School of Philosophical and Historical Inquiry and The Centre for Time, The University of Sydney, Sydney, Australia; Email: [kmiller@usyd.edu.au](mailto:kmiller@usyd.edu.au)

1 metaphysicians (most notably Horgan 2000 and Schaffer 2007) have argued for [2]  
2 monism, the view that, very roughly, there is only one concrete particular, or only  
3 one *fundamental* concrete particular. Ultimately, the issue concerns how we should  
4 understand the relationship between the world and what exists at the sub-regions  
5 of that world.<sup>1</sup> This paper defends the claim that we should be contingentists about  
6 monism and pluralism.

7 Section 2 offers a systematic taxonomy of the various versions of monism and  
8 pluralism, a taxonomy that allows us more clearly to see how to show that these  
9 views are necessary or, alternatively, contingent. Section 3 builds on some recent  
10 work by Gideon Rosen in trying to show that these claims are not necessary truths.  
11 In Section 4 I consider the possibility that we should embrace necessitarianism  
12 because of epistemological threats raised by contingentism. I try to show first, that  
13 the necessitarian is epistemologically no better off than the contingentist, and  
14 second, I try and offer a tentative way of making sense of how we could come to  
15 know contingent metaphysical claims by appealing to *a priori* necessary condi-  
16 tional claims. Section 5 builds on this idea by considering particular arguments  
17 for monism, and showing not only that these arguments militate in favour of  
18 contingentism, but further, that we can use them to show how a contingentist could  
19 come to know metaphysical facts. Therefore, I conclude, we should embrace  
20 contingentism.

21  
22 *2. Monism and pluralism*

23  
24 The special composition question, posed by van Inwagen (1990), asks under what  
25 conditions some particulars compose a further particular. That question has been  
26 answered in very different ways, ranging from compositional nihilism (the view  
27 that there are no conditions under which composition occurs) at one end of the  
28 spectrum, to unrestricted composition (the view that for any arbitrary particulars,  
29 those particulars compose something) at the other.

30 Until recently, parties to this debate disagreed about under *what conditions*  
31 some particulars compose a further particular, but they agreed on the form of the  
32 question to be answered. They agreed, at a very general level, on a particular  
33 methodology: a *bottom-up* methodology. This methodology seeks to answer the  
34 question of which entities exist by asking under what conditions composition  
35 occurs, where it is, often tacitly, assumed that non-fundamental compose entities [3] [4]  
36 are ultimately composed of fundamental simple entities. Thus the methodology

37  
38 <sup>1</sup> I use the phrase 'at which it exists' and 'exists at' and their cognates as neutral between  
39 a view according to which the world occupies a region of space-time, and a view according to  
40 which it is identical to a region of space-time.

1 tends to presuppose that there is a particular direction of dependence<sup>2</sup> between the  
2 world and any particulars that wholly exist<sup>3</sup> at the sub-regions of the world.

3 Consider what we might call the *fundamentality question*. This is the question  
4 of whether the world is fundamental, and any particulars that exist at sub-regions  
5 of the world as non-fundamental<sup>4</sup> proper parts of the world, or whether the [5]  
6 particulars that exist at sub-regions of the world are fundamental, and anything  
7 composed of those particulars as non-fundamental. The bottom-up methodology [6]  
8 does not entail, but fits very nicely with, a particular answer to the fundamentality  
9 question, namely one that takes proper parts of the world to be fundamental, and  
10 the world to be non-fundamental.<sup>5</sup> We might think of this view of fundamentality  
11 as also a bottom-up view according to which fundamentality relations hold from  
12 the bottom up, and the bottom level of ontology is the most fundamental. The view  
13 that most naturally follows from this view is that at bottom there are fundamental  
14 building blocks – simples – from which everything else non-fundamental is com-  
15 posed. Call this view *pluralism*.<sup>6</sup>

16 An alternative methodology, which has recently become popular, is *top-down*.  
17 This methodology asks under what conditions the world decomposes into parts.  
18 This methodology does not entail, but fits nicely with, a quite different answer to  
19 the fundamentality question according to which fundamentality relations are top-  
20 down. That is, the world is considered to be fundamental, and any of its parts  
21 merely derivative. According to this view then, there exists a fundamental world,  
22 and we ask under what conditions the world decomposes into non-fundamental  
23 proper parts.<sup>7</sup> This view is *monism*.<sup>8</sup>

24  
25 <sup>2</sup> I borrow the notion of dependence from Schaffer (unpublished, p. 6). For Schaffer,  
26 dependence is a synchronic ordering relation – it is reflexive, anti-symmetric, and transitive – that  
27 entails that the dependent supervenes upon that upon which it depends. The direction of depen-  
28 dence is determined by an asymmetry-maker, in this case the parthood relation, which yields a  
29 mereological hierarchy and hence a hierarchy of dependence.

30 <sup>3</sup> Of course, the world exists at all of its sub-regions. The issue is which other particulars  
31 exist; that is, for each sub-region of the world, is there some particular that exists at just that  
32 sub-region. I will say that a particular *P* wholly exists at a region *R* iff for every sub-region *R\** of  
33 *R*, *P* exists at *R\**, and there is no region *R#* that is discrete from *R*, such that *P* exists at *R#*.

34 <sup>4</sup> Or *derivative*, to use Schaffer's term (unpublished, p. 5).

35 <sup>5</sup> Where fundamentality is understood in terms of dependence. The proper parts of the  
36 world are fundamental and the world non-fundamental just in case the world depends on the  
37 proper parts.

38 <sup>6</sup> I borrow this terminology from Sider (2007) and Schaffer (2007).

39 <sup>7</sup> It might be that this involves the general view that the part/whole relation is a  
40 dependence relation in which the part is dependent on the whole. Or it might be that it involves  
41 only the weaker claim that there is a dependence relation between the world and its parts, such  
42 that the world is fundamental and the parts are non-fundamental. This latter would leave it open  
43 that the direction of dependence between some of the proper parts of the world and their parts  
44 might be the reverse: the parts of proper-parts of the world might be more fundamental than the  
45 proper parts themselves.

46 <sup>8</sup> I borrow this term from Schaffer (2007) and Sider (2007).

1 Monists and pluralists answer the fundamentality question differently. The  
2 former hold that the world is fundamental; the latter hold that some proper parts of  
3 the world are fundamental. Now consider what we might call the *ontological*  
4 *question*, the question of which non-fundamental concrete particulars exist. Plu-  
5 ralist think that this question should be answered by appeal to the special com-  
6 position question. Non-fundamental composite particulars exist just where some  
7 plurality of simples meet the conditions under which *composition* occurs<sup>9</sup> Monists  
8 think that this question should be answered by appeal to the special *decomposition*  
9 question (if you will), which asks under what conditions some whole – the world  
10 – decomposes into particulars. Non-fundamental particulars exist just when the  
11 conditions are met under which decomposition occurs.

12 There are three possible answers to the special composition question, and three  
13 possible answers to the special decomposition question. These are the same three  
14 answers: composition/decomposition occurs *always*, *sometimes*, or *never*. Call the  
15 view that composition/decomposition *never* occurs *nihilism*.<sup>10</sup> Call the view that  
16 composition/decomposition occurs under only *some* circumstances *restrictivism*.<sup>11</sup>  
17 And call the view that composition/decomposition occurs under *all* circumstances  
18 *universalism*.<sup>12</sup> Nihilism, restrictivism and universalism offer three different  
19 answers to the ontological question. When we combine different answers to the  
20 fundamentality question with different answers to the ontological question, we get  
21 six distinct metaphysical views. Call each of these views a *complete metaphysical*  
22 *account*, or CMA.<sup>13</sup>

23 Then, for any world  $w$  such that we can decompose  $w$  into multiple disjoint  
24 regions each of which is occupied by some particular,<sup>14</sup> *nihilistic monism* is true in 7  
25  $w$  just in case in  $w$  there exists just one fundamental simple particular, the world.  
26 (Although the world is a simple, it can nevertheless be a structurally complex  
27 spatio-temporally extended simple.)<sup>15</sup> *Universalist monism* is true in  $w$  just in case  
28 for any occupied sub-region in  $w$  there is some non-fundamental proper part of  $w$   
29

30 <sup>9</sup> Henceforth when I talk of which particulars exist, I intend to refer only to *concrete*  
31 particulars.

32 <sup>10</sup> See for instance Unger (1979).

33 <sup>11</sup> See for instance van Inwagen (1990); Merricks (2001); McCall (1994).

34 <sup>12</sup> See for instance Lewis (1986, pp. 212-213); Sider (2001); Schaffer (unpublished);  
35 Heller (1990).

36 <sup>13</sup> I do not intend to suggest that these six CMAs are exhaustive. It could be that there  
37 are no fundamentality relations at all, or at least that the world and the simples in it are equally  
38 fundamental. But dividing the terrain in this way is helpful, and it is these six CMAs in which I  
39 am interested.

40 <sup>14</sup> Where disjoint regions  $R_1$  and  $R_2$  can each be occupied, without us presupposing that  
41 there are two distinct particulars, one of which occupies  $R_1$  and the other  $R_2$ : it could be that  $R_1$   
42 and  $R_2$  are both occupied by the very same particular.

43 <sup>15</sup> This is the view defended by Horgan and Potrč (2000) and which they call *blobjec-*  
44 *tivism*, and it is the view that Schaffer (2007) calls *existence monism*.

1 that wholly exists<sup>16</sup> at that region.<sup>17</sup> *Restrictivist monism* is true in  $w$  just in case for 8  
2 some and only some occupied sub-regions of  $w$  there are particulars that wholly  
3 exist at those sub-regions and these particulars are non-fundamental proper parts  
4 of  $w$ . *Nihilistic pluralism* is true in  $w$  just in case every occupied region in  $w$   
5 can be decomposed into a plurality of simple fundamental particulars, and those  
6 simple particulars do not compose any composite objects.<sup>18</sup> *Universalist pluralism*  
7 is true in  $w$  just in case every occupied region in  $w$  can be decomposed into a  
8 plurality of fundamental particulars, such that for any arbitrary set of those par-  
9 ticulars there is a non-fundamental particular that those particulars compose.<sup>19</sup>  
10 Finally, *restrictivist pluralism* is true in  $w$  just in case every occupied region in  $w$   
11 can be decomposed into a plurality of fundamental particulars, such that for some  
12 and only some of those particulars there is a non-fundamental particular that those  
13 particulars compose.<sup>20</sup>

14 The claim that the CMAs are modally necessary should then be interpreted as  
15 the claim that, for every world in the set of worlds  $W$  such that we can decompose  
16 each of the worlds in  $W$  into multiple disjoint regions each of which is occupied by  
17 some particular, the very same CMA is true at each of those worlds.<sup>21</sup> The idea is 10  
18 that we are only interested in worlds in the  $W$  set because these are the only worlds  
19 in which it makes sense to ask which CMA is true: worlds, for instance, in which  
20 there is just a single point-sized object are ones in which the issue of composition  
21 and fundamentality does not arise.

22 For the purposes of this paper I will largely set aside restrictivist monism and  
23 restrictivist pluralism, since I think the strongest case for necessitarianism can be  
24 made by considering universalist and nihilist versions of monism and pluralism.  
25 I am doubtful that any account that restricts composition in a precise and non-  
26 arbitrary manner can at the same time admit into our ontology largely the objects  
27 restrictivists tend to want to admit, and less likely that this will be so in other 11  
28 possible worlds. Anyway it is sufficient to vindicate contingentism to show that  
29 universalist and nihilist versions of monism and pluralism are best thought of as  
30 contingent, without considering any other CMAs.

31  
32 <sup>16</sup> Where a particular  $P$  wholly exists a sub-region  $R$  just in case none of  $P$  occupies any  
33 region that is not a part of  $R$  and every part of  $R$  is occupied by  $P$ .

34 <sup>17</sup> This is the view defended by Schaffer (2007 and unpublished), which he calls *priority*  
35 *monism*.

36 <sup>18</sup> This is the view sometimes known as nihilism, or compositional nihilism, and  
37 defended by Unger (1979).

38 <sup>19</sup> This is the view known as universalism, mereological universalism or unrestricted  
39 composition and defended by, for instance, Sider (2001), Lewis (1986) and Quine (1963).

40 <sup>20</sup> This is the view defended by, for instance, Merricks (2000) and van Inwagen (1990). 9

41 <sup>21</sup> See Schaffer (unpublished); van Inwagen (1990); Sider (2001); Markosian (2007).  
42 For a rare alternative view see Parsons (unpublished) and Cameron (forthcoming).

1 Since each CMA is the conjunction of two claims, one regarding which  
2 account of fundamentality is true – monism or pluralism – and the other regarding  
3 which account of composition or decomposition is true – nihilism, restrictivism or  
4 universalism – necessitarianism is the conjunction of two claims.

5  
6 Claim 1: Either *monism* is necessarily true or *pluralism* is necessarily true.<sup>22</sup>

12 13

7 Claim 2: If *monism* is true, then the correct answer to the special **decomposition**  
8 question is a necessary truth, and if *pluralism* is true, then the correct answer to the  
9 special **composition** question is a necessary truth.<sup>23</sup>

10  
11 If either Claim 1 or Claim 2 is false, then necessitarianism is false. This paper  
12 seeks only to establish that there is good reason to suppose that at least one of  
13 Claim 1 or Claim 2 is false, and hence good reason to embrace contingentism.

14  
15 3. *General arguments for contingentism*

16  
17 Gideon Rosen (2006) has argued compellingly that there is a large range of  
18 metaphysical theses that make substantial ontological claims about our and other  
19 worlds that are plausibly neither conceptual nor logical truths, nor *a posteriori*  
20 Kripkean necessities. For instance, although certain axioms of mereology might be  
21 conceptual truths that tell us what it is to be a part, or to be a whole composed of  
22 parts, the axioms that tell us which mereological composites exist are not concep-  
23 tual claims of this kind. One could perfectly well understand the parthood relation  
24 without endorsing unrestricted mereological composition. Rosen suggests that  
25 these latter sorts of axioms should be thought of as conditionals such as: given  
26 that there are mereological aggregates, then for any *x*s, those *x*s compose a *y*. But  
27 that conditional does not guarantee that every world is one in which there are  
28 mereological aggregates. The strategy is not unfamiliar. Hartry Field agrees with  
29 Hale and Wright that *if* there are numbers, then Hume's Principle (the number of  
30 *F*s equals the number of *G*s just in case there the *F*s and the *G*s are equinumerous)  
31 is true. He merely disagrees with Hale and Wright that as stated Hume's principle  
32 is a conceptual truth that guarantees the existence of necessarily existing math-  
33 ematical objects (see Field 1993; Hale and Wright 1992).

34 The claims made by monists and pluralists are clearly of the sort that Rosen has  
35 in mind. Indeed, one of the claims that make up each of the CMAs is a claim about  
36 composition that precisely involves whether or not unrestricted mereological com-  
37 position is a necessary truth or not. Rosen's suggestion that these axioms only  
38

39  
40 <sup>22</sup> This presupposes the monism and pluralism are exhaustive. I think that is a plausible  
41 assumption. More importantly, dialectically the assumption aids the necessitarian, since it means  
42 that showing that one of these views is necessarily false entails that the other view is necessarily  
43 true, and hence is sufficient to show that necessitarianism is true.

44 <sup>23</sup> Or more simply, Claim 2: The correct answer to the special composition/  
decomposition question is a necessary truth.



1 express conceptual truths when interpreted as conditionals seems right. The appro-  
2 piate conditional is not, I think, the one that Rosen suggests since that would rule  
3 out restricted composition as a mereological claim. Rather, given that there are,  
4 unrestrictedly, mereological aggregates, then for any *x*s, those *x*s compose a *y*.  
5 Given that there are some mereological aggregates, then for some *x*s, those *x*s  
6 compose a *y*. Given that there are no composites, for any *x*s, those *x*s do not  
7 compose a *y*. Everyone can agree that these conditionals are conceptual truths.  
8 Since it does not seem to be a conceptual truth that the antecedents hold in every  
9 world, we have reason to suppose that none of the compositional claims of monism  
10 and pluralism is a conceptual truth.

11 Such metaphysical claims also seem to be poor candidates to be Kripkean *a*  
12 *posteriori* necessities. *A posteriori* necessities frequently occur when a term func-  
13 tions as a rigid designator. Some metaphysical claims of the kind Rosen has in  
14 mind might turn out to be *a posteriori* necessities. It is at least not obviously crazy  
15 for Armstrong and Heathcote (1991) to assert that it is an *a posteriori* necessity  
16 that causation involves a relation of nomic necessitation between the properties  
17 that are the causal relata. Similarly, one can imagine a range of metaphysical  
18 claims about the nature of space-time that might be *a posteriori* necessities.  
19 Perhaps if actually space-time is substantival, then relationist worlds are worlds  
20 that, as a matter of *a posteriori* necessity, lack space-time. Perhaps if our world is  
21 one in which there are relations of nomic necessitation, then worlds without such  
22 relations are worlds without laws of nature as a matter of *a posteriori* necessity.

23 But none of the CMAs look like they will be *a posteriori* necessary. It is  
24 certainly counterintuitive that any of the relevant terms have a descriptive content  
25 that includes a rigid component,<sup>24</sup> or that the extensions of these terms are prop-  
26 erties, relations, or mass nouns with which we are causally connected in the way  
27 that the direct reference theorist thinks that we are, say, causally connected to  
28 water samples.<sup>25</sup> It is hard to imagine, for instance, that if we discovered that in our  
29 world unrestricted mereological composition holds, that we would conclude that  
30 composition is whatever composition relation obtains actually, where the actual  
31 relation is defined in terms of the relevant set of mereological axioms. That would  
32 be the discovery that it is *a posteriori* necessary that unrestricted composition  
33 holds. Yet it seems implausible that in a counterfactual world *w* in which there exist  
34 simples but only some mereological ‘composites’ that we should conclude not that  
35 *w* is a world with restricted composition, but rather a world with *schmoposition*, 14

36  
37 <sup>24</sup> As would be the case on a largely descriptivist account of rigid designation. In that  
38 case we hold that part of the descriptive content – the part to which we have access *a priori* – is  
39 that the term refers, in all worlds, to whatever it refers to actually. See Chalmers (2004) and  
40 Jackson (1998, 2004).

41 <sup>25</sup> See for instance Block and Stalnaker (1999).

1 since composition rigidly picks out the relation defined to include the axiom: for  
2 any  $x$ s, those  $x$ s compose a  $y$ . Composition just does not seem to be that kind of  
3 relation.<sup>26</sup>

4 As Rosen would put it, we should think that a proposition  $P$  is possible just in 15  
5 case  $P$  is correctly conceivable, where  $P$  is correctly conceivable just in case  $P$  does  
6 not entail a logical inconsistency when combined with a full specification of the  
7 natures of the kinds it concerns. Thus in the case of obvious conceptual truths, it  
8 is not possible to correctly conceive that those truths are not true. But correct  
9 conceivability is supposed to guarantee that, given that we specify all the relevant  
10 natures of the things involved, we cannot correctly conceive as being false what is 16  
11 *a posteriori* necessary. Thus the idea is that we cannot correctly conceive of  
12 water's being other than  $H_2O$  given that it is  $H_2O$ , because this is not logically  
13 consistent with its being the essential nature of water to be whatever it is actually.  
14 Whenever we are considering claims about water, a full specification of the  
15 relevant intrinsic properties will include a specification that actually water is  $H_2O$ ,  
16 and will tell us what the chemical composition is of any watery substances we are  
17 considering counterfactually.

18 The idea is that this procedure avoids modal error. *Prima facie*, though, it is not  
19 clear that it avoids modal error altogether. Notoriously, there are those who claim  
20 that we can correctly conceive of zombie worlds, worlds that are minimal physical  
21 duplicates of the actual world, but which lack phenomenal character (Chalmers  
22 1996). Since physicalism just is the claim that necessarily, any minimal physical  
23 duplicate of our world is a duplicate *simpliciter*, such correct conceiving would  
24 entail the truth of dualism. The problem is that even avowed physicalists often find  
25 themselves able to conceive of the zombie world, while being convinced that  
26 physicalism is true. They, then, must contend that correct conceiving has led them  
27 astray: such a world is not possible.

28 The most plausible hypothesis advanced by physicalists to explain their  
29 apparently being able to conceive of the zombie world is that there is something  
30 pertinent that we do not know: either we do not know some facts about the  
31 entailment of the phenomenal from the physical, or we do not know some physical  
32 facts. We are required to correctly conceive of the entire physical nature of a world  
33 being reproduced sans phenomenal character. But there is much about the nature  
34 of that world that we do not know, so it is not surprising that we think we can  
35 conceive of the physical facts without the phenomenal facts. Whether this is a  
36 compelling response, given that the physicalist cannot tell us what sorts of facts are  
37 the ones that we do not know, is debatable and not of concern here. The point is  
38 just that the response is entirely consistent with the methodology of correct

39  
40

<sup>26</sup> Although see Williams (2006) for an alternative view.



1 conceivability since they appeal to the existence of facts – internal natures or 17  
2 relevant facts – which if we knew them, would render the zombie world not  
3 correctly conceivable.

4 Moreover, although many physicalists think that the phenomenal facts are  
5 entailed by the physical facts in our world, they allow that there *could* be non-  
6 physical worlds. Necessitarians, however, think that metaphysical claims hold in  
7 every world, and so in some good sense they do not think that the distribution of  
8 matters of fact substantively entails the metaphysical truths (although it does so  
9 trivially). Given this, we might think that the methodology is on even firmer  
10 footing with respect to metaphysical claims, since, unlike in the case of the zombie  
11 world, it is unclear what sort of non-metaphysical matters of fact we could be  
12 ignorant of that would lead us to think that a particular metaphysical thesis is  
13 correctly conceivable when in fact it is not.

14

#### 15 4. *Necessitarians fight back*

16

17 The quick route to contingentism about the CMAs, then, is to note that each seems  
18 to be correctly conceivable, and leave it at that. Since it is standard to presuppose  
19 that these views are necessary truths, however, it is worth considering on what  
20 grounds necessitarians might reject contingentism.

21

#### 22 4.1. *Metaphysical claims as conceptual truths*

23

24 One suggestion is that we have dismissed too soon the notion that the metaphysical  
25 claims in question are conceptual truths. One strategy is to show that they are; the  
26 other is to show that we have no good reason to think that they are not. Consider  
27 the second of these strategies first. One might accept that correct conceivability is  
28 a guide to possibility, but be sceptical of our ability to correctly conceive. Perhaps  
29 we lack a sufficiently good grasp of our own concepts to know if we are correctly  
30 conceiving some proposition obtaining at a world. We can imagine a case in which,  
31 even if we know all of the relevant facts about the essences of the entities involved,  
32 we might still think that we can correctly conceive of water as being other than  
33 H<sub>2</sub>O. Some of these cases are explained by our having failed to interrogate our  
34 concept sufficiently rigorously. So, for instance, although we know all the relevant  
35 facts about actual and counterfactual worlds, what we don't yet know is that our  
36 concept of water is rigid; we might mistakenly think it is merely functional. This  
37 is not very worrying. But there is a further worry in the background, which is that  
38 one might think that the true concept being deployed is the one that would *in fact*  
39 guide what we say given various discoveries about the actual nature of water and  
40 the intrinsic properties of other counterfactual watery substances. But we might be  
41 wrong about that even after a great deal of interrogation of our concept. For what  
we think we would do, what we think our dispositions will be, might turn out to be

1 different from what they in fact will be. I think that there is a genuine danger that 18  
2 sometimes we might be wrong about our concepts. I am not at all sure that if we  
3 discovered that a large percentage of the Pacific Ocean was actually not H<sub>2</sub>O but  
4 some entirely different molecule that reacts like water in almost all situations, that  
5 we wouldn't say that water is a disjunction of those two substances, or that it picks  
6 out any property that plays the water role and nothing that does not, whether that  
7 stuff is H<sub>2</sub>O or not. But I would be very surprised if these kinds of mistakes were  
8 occurring in metaphysical debates like that between the monist and the pluralist. It  
9 is hard to see what I could discover about my concept of composition, or funda-  
10 mentality, that would lead me to realize that what seems to be correctly conceiv-  
11 able in fact turns out not to be.

12 The second strategy involves bolstering the claim that the metaphysical theses  
13 in question are conceptual truths. The intuition that they are not conceptually  
14 necessary truths issues both from the fact that it in no way seems to follow from  
15 our concepts of any of the metaphysical terms that the metaphysical theses are  
16 necessary, and from the fact that we seem to be able to correctly conceive of worlds  
17 in which those theses do not hold. This makes it sound as though our expectation  
18 is that we examine a *single* concept to determine whether there is conceptual  
19 necessity where in fact we are evaluating whole metaphysical views, not individual  
20 concepts.

21 Thus we might re-conceptualize the project of *a priori* reasoning in a way that  
22 is more consistent with recent proponents of conceptual analysis. According to 19  
23 these views, *a priori* reasoning involves fitting together many interrelated  
24 concepts. We determine what is conceptually necessary by determining what is the  
25 best, most elegant systematization of our concepts (see for instance Jackson 1998).  
26 We are faced with a number of rival metaphysical *packages*. There are competing  
27 packages within a particular domain in metaphysics – sub-packages – and there are  
28 complete metaphysical packages, packages, which, if true, completely describe  
29 the metaphysics of our world. The kind of reasoning engaged in by metaphysicians  
30 can best be thought of as a way of determining which sub-packages are most  
31 coherent: which fit best with our folk intuitions; which make most sense of the  
32 phenomena to be explained; which give us the most explanatory power; which fit  
33 best with other metaphysical packages and so on until ultimately at the end of  
34 investigation, after reflective equilibration, we are in a position to determine which  
35 is the preferable complete metaphysical package. The complete metaphysical  
36 package that we converge on after this investigation is conceptually necessary, for  
37 the process of determining which complete package to adopt just *is* the process of  
38 determining which complete package is conceptually necessary. Since we are  
39 nowhere near being in a position to choose a complete metaphysical package, we  
40 should not be surprised if individual competing sub-packages can each *appear* to  
41 be correctly conceivable.

1 Perhaps it is mere foot-stamping to note that this does not seem to ring true.  
2 Anti-Humeans and Humeans adopt very different metaphysical sub-packages  
3 across a wide range of domains. But, at least at this stage of investigation, it is hard  
4 to see that the Humean will find the anti-Humean's view conceptually necessarily  
5 false. She will think it ontologically inflationary and objectionable in a whole host  
6 of ways. But not, surely, conceptually incoherent.

7 It seems to me that the process described above is not the process of arriving  
8 at a conceptual truth. It is a process that involves thinking about our concepts,  
9 and considering how different metaphysical views make sense of those concepts  
10 and make sense of our world and explain various phenomena. It is an *a priori*  
11 process that at times appeals to conceptual analysis, or to facts about our con-  
12 cepts. But it is not, for all that, a process that yields conceptual truths in any  
13 ordinary sense: it does not yield truths such that, at the end of inquiry, we find  
14 competing claims incoherent. Rather, this process is really one of *a priori* reflec- 20  
15 tion designed to tell us which metaphysical account is a 'best fit'. That is con-  
16 sistent with the metaphysical truths being synthetic *a priori* truths rather than  
17 conceptually necessary truths, albeit that some of the *a priori* data involve reflec-  
18 tion on our concepts.

19 At least, if the proponent of this view really intends that the view that is  
20 converged upon is conceptually necessary, more needs to be said about why we  
21 should expect convergence, and why nothing like 'proto' conceptual incoherence  
22 is so far apparent in our investigation (that is, why so far into our investigation we 21  
23 cannot even begin to see what it is about alternative metaphysical claims that might  
24 ultimately lead us to say that they are incoherent). Without saying more, such an  
25 account makes it too easy for the necessitarian. Suppose that after considerable  
26 reflection there is no convergence on a particular CMA. Then it is always open to  
27 the necessitarian to claim that the end of inquiry has not been reached. After all,  
28 how does one determine where the end of inquiry is? It cannot be defined in terms  
29 of convergence, for then it will be impossible to show, of some metaphysical  
30 claim, that it is not conceptually necessary. The necessitarian needs to say *some-*  
31 *thing* more about convergence if her view is not to come out as trivial in virtue of  
32 being true no matter what we discover.

33 We might appeal to intuition to tell us, roughly speaking, where we are in the  
34 inquiry process. Then we might say that if we think that we are near the end of  
35 inquiry, and it does not appear that reflective equilibration will yield convergence,  
36 we should conclude that the views under consideration are not conceptually  
37 necessary *unless* we have some view about *how* reflection will ultimately lead to  
38 convergence and some reason to think that whatever we converge upon really will  
39 be *conceptually* necessary. No such story is forthcoming in the cases under  
40 consideration. So the necessitarian ought not to pin her hopes on the claim that the  
41 CMAs are conceptually necessary.

1 4.2. *Metaphysical claims as synthetic a priori truths*

2 We might nevertheless think that, roughly, the process just described is the correct  
3 one. But we might instead view it as yielding synthetic *a priori* rather than  
4 conceptual truths. It seems to me that what lies behind this idea is that when we  
5 have competing metaphysical packages, such as the CMAs, that are empirically  
6 equivalent, all there is to metaphysical discovery is this process of equilibration  
7 and conceptual stock-taking. Let us call the metaphysical package that is prefer-  
8 able, after ideal reflection given the various constraints listed above, the more  
9 *virtuous* package. Then if we have reason to think that the very same *a priori*  
10 reasoning holds true in every world – which is really to say that the same CMA will  
11 be more virtuous in every world – then we have reason to think that whichever  
12 CMA is true, is necessarily true.

13 We can then explain why correct conception is not always a good guide to  
14 possibility. For it seems likely that we can correctly conceive that, say, pluralism  
15 is true at a world, even though monism is necessary, since it turns out that monism  
16 is more virtuous at every world.

17 Now, in general it does not look very plausible to move from the claim that,  
18 from the perspective of the agents in any world *w*, there is a particular form of *a*  
19 *priori* reasoning *R*, such that in *w* the agents should conclude *P*, to the conclusion  
20 that necessarily *P*. After all, *a priori* reasoning is not infallible reasoning: agents  
21 in two different worlds might have the same *a priori* reasons to believe *P*, yet *P*  
22 might only be true in one of those worlds. My reasons for thinking I am not a brain  
23 in a vat are *a priori*, but a brain in a vat has the very same reasons, it is just that  
24 in her world, her *a priori* reasons lead her astray. So unless we have already ruled  
25 out contingentism, the fact that the same *a priori* reasoning would lead agents in  
26 different worlds to each conclude that the very same CMA is true at each of their  
27 worlds is no evidence that that claim is necessarily true. If contingentism is true,  
28 some of those agents simply turn out to live in sceptical worlds.

29 Perhaps, though, the idea is that *all there is* to a metaphysical claim's being true  
30 at a world is that it is the most virtuous. Then if *a priori* reflection tells us that that  
31 package will be more virtuous in every world, then that *just is* the discovery that  
32 that claim is necessarily true. The kind of equilibrative *a priori* process of discover-  
33 ing virtue, on the one hand, and the discovery of metaphysical truth, on the other,  
34 cannot come apart. So there can be no sceptical worlds.

35 Is this the view that metaphysical debates are merely semantic, rather than  
36 reflecting genuine metaphysical differences between the theories?<sup>27</sup> In part that  
37 depends on what one thinks it would take for there to be genuine metaphysical  
38 differences. One might say that there are genuine differences just if there is a fact

39  
40 <sup>27</sup> For views such as these see Hirsch (2002); Carnap (1932); Putnam (1987, 1988) and  
41 Yablo (1998). For an account of when theories are equivalent see Miller (2005).

1 of the matter, a truth-maker if you will, that grounds the truth of only one CMA in  
2 any world. According to the view under consideration, a CMA is true at a world  
3 just in case ideal reflection reveals that it is more virtuous than every other CMA.  
4 This is consistent with a number of different views about the truth-maker of a  
5 CMA. One might think, for instance, that there are objective theoretical virtues,  
6 and that it is constitutive of being a theoretical virtue that that virtue tracks truth.  
7 So if a theory is more virtuous in every world then it follows that it is necessarily  
8 true. When we discover, *a priori*, which is more virtuous we thereby discover  
9 which is necessarily true, but we are discovering a perfectly objective metaphysical  
10 fact. On this view, there is some metaphysical fact, F, in virtue of which a  
11 particular CMA is true at a world, but the presence of F at a world is necessarily  
12 linked to the CMA being more virtuous at that world. Another alternative embraces  
13 the idea that there are objective theoretical virtues, but holds that what it is for a  
14 metaphysical claim of this sort to be true *just is* for it to be more virtuous: virtue  
15 is *constitutive* of truth. There are objective facts about virtue, and hence objective  
16 facts about which CMA is true at a world so long as one CMA is uniquely more  
17 virtuous, but that fact just lies in whether that CMA is more virtuous or not at that  
18 world. Finally, one might embrace the idea that virtue is constitutive of truth, but  
19 hold a more psychologistic view of virtue, according to which virtue depends on <sup>22</sup>  
20 various properties of humans as knowers: which theory is more virtuous depends  
21 on our particular explanatory needs given our mental capacities and our concepts.  
22 Then there are objective facts regarding theory virtue, but these facts depend on  
23 our interests. So if a particular CMA is more virtuous in every world, it is true in  
24 every world and hence necessary; although, had it been that we had different <sup>23</sup>  
25 explanatory interests, or slightly different mental capacities, it would have been  
26 that some other CMA was true and, perhaps, necessarily so.

27 In all three of these cases there is a truth-maker at each world in virtue of which  
28 a particular CMA is true. Set aside the first case for a moment. In the second case  
29 the truth-maker is the existence of some objective virtue of the theory in each  
30 world, which constitutes its truth. In the third case the truth-maker is the existence  
31 of some objective, but agent-relative, virtue of the theory in each world, which  
32 constitutes its truth. Suffice to say, these are pretty deflationary views about the  
33 nature of truth-makers for metaphysical claims. In some good sense the third  
34 option does seem to render metaphysical disputes, if not merely *semantic*, then at  
35 least not really genuine either. What determines whether monism or pluralism is <sup>24</sup>  
36 true is not whether or not the world or its sub-parts are more fundamental, or under  
37 what conditions composition occurs, but, rather, which of these claims makes most  
38 sense to us and is most useful. In a sense, the concept of a theoretical virtue turns  
39 out to be a rigid one, such that, whatever features of a theory make it more  
40 explanatory given our actual psychological properties, necessarily those features  
41 are the virtues. If a unique CMA has those virtues in every world, it is necessarily

1 true. When we seem to conceive that some other CMA is possible, we are not  
2 correctly conceiving a counterfactual world in which that CMA is true; rather, we  
3 are correctly conceiving of a possible world as actual, in which our explanatory  
4 purposes and psychological properties are a particular way (a way that is different  
5 from the way they are in fact) such that given those purposes the CMA in question  
6 is more virtuous and necessarily so. That is to do no more than note that if actually  
7 water is XYZ and not H<sub>2</sub>O, then, necessarily, water is XYZ. The problem with this  
8 option is that it is just far too deflationary for most metaphysicians' tastes. Even if  
9 we embrace this option, it in no way follows, as we will see shortly, that any of the  
10 CMAs are necessary, for it is an open question indeed whether any unique CMA  
11 is more virtuous in every world. So this view is consistent with contingentism and  
12 we might well have reason to think that, if it were true, contingentism would  
13 follow.

14 Of course, as I noted earlier, if one thinks that there is a necessary connection  
15 between virtue and truth, and that we gain access to *a priori* synthetic truths, then  
16 one does not need to provide an account that explains why what seems to be  
17 correctly conceivable is really not conceivable. Rather, one can reject the notion  
18 that what is correctly conceivable is possible. The defender of the second option,  
19 who thinks that non-agent relative virtues constitute the truth of metaphysical  
20 claims, will reject correct conceivability for such claims. Again, I think this view  
21 is too deflationary – how can it be that the metaphysical truth depends on the  
22 convergence of agents – but more importantly I note that it need not push us  
23 towards necessitarianism for the very same reasons as those given with respect to  
24 the third option just discussed.

25 The first option is the least deflationary, and, to that end, probably the most  
26 amendable to the metaphysician. On this view, there is a necessary connection  
27 between the truth of a theory and its being virtuous. The virtues track truth but do  
28 not constitute it. This entails that if a CMA is more virtuous in every world, then  
29 it is necessarily true. But now it is not obvious why we should suppose that the  
30 process of reflection and equilibration described earlier is a process that tracks the  
31 real virtues. It is constitutive of the virtues that they track truth. But why think that  
32 the kind of *a priori* reasoning we engage in yields virtues *in this sense*. Although  
33 we have closed the gap between truth and virtue, we have opened up a gap between  
34 the results of ideal *a priori* reflection on the one hand, and objective virtue on the  
35 other. We have few reasons to suppose that the things *we* call virtues are neces-  
36 sarily linked to truth.<sup>28</sup> 25

37  
38 <sup>28</sup> Cameron (forthcoming) makes the suggestion that we deny that if there is a CMA that  
39 is more theoretically virtuous in every world than its competitors, that is reason to think it is  
40 necessarily true. This suggestion differs in that it takes it as constitutive of the real virtues that  
41 they lead to truth, but suggests that the proto-virtues might not be the actual virtues.



1 Even setting aside that worry, there is every possibility that after ideal *a priori*  
2 reflection we will discover that different CMAs are differently virtuous in different  
3 worlds. For simplicity, let us focus just on the ‘traditional’ theoretical virtues  
4 (which arguably do not include various features that the virtues, in the sense in  
5 which I have been using the term, will include, such as how well a metaphysical  
6 package systematizes our concepts or makes sense of our folk theories, or fits with  
7 other metaphysical packages and so forth) to get a flavour for why this might be so.  
8 Even if for every theoretical virtue, *T*, there is a unique CMA that is more virtuous  
9 with respect to *T* than any other CMA, it does not follow that there is a unique  
10 CMA that is more theoretically virtuous *simpliciter* than any other. Consider the  
11 virtue of ontological parsimony. We might be tempted to say that nihilistic monism  
12 is the most ontologically parsimonious account since it posits the fewest entities.  
13 On the other hand, nihilistic monism posits more relations than other CMAs.  
14 Nihilist monists hold that there is no coffee table in what I would call my living  
15 room. But the world does instantiate a particular property at a particular location.  
16 It has the property of being, as we might say, ‘coffee-table-esque’ at a location. In  
17 order to be able to talk about the properties of the world at locations without  
18 positing the existence of objects at those locations, the nihilist monist needs to  
19 introduce a set of new relations: adverbialized instantiation relations.<sup>29</sup> The details  
20 of this proposal are incidental, but roughly the idea is that the world instantiates  
21 properties like being coffee-table-esque in a ‘regional’ manner and that does not  
22 commit one to the existence of a coffee table. If these relations are part of ontology,  
23 then nihilist monism is probably not more ontologically parsimonious than the  
24 other CMAs. If they are not part of ontology, then nihilist monism is *more*  
25 ontologically parsimonious than rival views, but it is *less* simple. So what it gains  
26 with respect to one virtue, it loses with respect to another. Indeed, it looks *prima*  
27 *facie* plausible that this will generally be the case: what one CMA loses with  
28 respect to certain virtues, it makes up with respect to others.

29 There are two ways in which theories can be equally theoretically virtuous.  
30 They can be what we might call strongly equally virtuous, where two theories  $T_1$   
31 and  $T_2$  are strongly equally virtuous iff for every theoretical virtue *V*,  $T_1$  has *V*  
32 to the same degree as  $T_2$ . Or they can be weakly equally virtuous, where two theories  
33  $T_1$  and  $T_2$  are weakly equally virtuous iff there are theoretical virtues  $V_1 \dots V_n$ ,  
34 such that  $T_1$  has each  $V_i$  to a different degree than  $T_2$ , but the average degree of  
35 theoretical virtue of  $T_1$  is the same as the average degree of virtue of  $T_2$ . That is, one  
36 is tempted to say that the virtues even out, so that the total ‘virtuousness package’  
37 is the same for each theory. Given that the *a priori* process of reflection in question  
38

39 <sup>29</sup> These relations are analogous to the kind of temporally adverbialized instantiation  
40 relations to which endurantists about persistence appeal when they say, for instance, that an  
41 object has a property *P* in a  $t_1$ ly manner, and lacks *P* in a  $t_2$ ly manner.

1 is really interested in the total virtuousness package of metaphysical theories, it  
2 could well be that this process would yield the conclusion that at least some of the  
3 CMAs are weakly equally virtuous and therefore equally virtuous in the relevant  
4 sense. In that case, ideal *a priori* reflection would yield a contingentist conclusion:  
5 different CMAs are true in different worlds.<sup>30</sup> [26]

6 Now what I have said here does not settle the matter. I have not shown that at  
7 least some of the CMAs are equally virtuous across worlds. But neither has the  
8 necessitarian shown that a unique CMA is the most virtuous across worlds. Nor, I  
9 think, do the prospects for the necessitarian seem that good. Here is a proposal that  
10 would make a necessitarian conclusion more likely: it turns out that ontological  
11 parsimony always trumps simplicity.<sup>31</sup> Then nihilistic monism is always the most  
12 virtuous and necessitarianism wins the day. Quite so. But notice that to get the  
13 necessitarian verdict here we need to presuppose something that seems very  
14 dubious. If the virtues function at all with respect to metaphysical claims the way  
15 they do with respect to scientific claims, then it seems very unlikely that parsimony  
16 always trumps simplicity. Otherwise I take it we should all be convinced that  
17 positrons are electrons going backwards in time: less simple, more parsimonious.  
18 On the other hand, if we can take no lessons about the virtues from the sciences,  
19 then I see no way to get a handle on them.

20 Thus, the contingentist should note, if we are to attain synthetic *a priori* [27]  
21 necessities by this method then there is all the danger in the world that our *a priori*  
22 reasoning does not track the objective virtues. Thus even if it turns out that *a priori*  
23 reasoning leads us to converge on a particular CMA as being true in every world,  
24 we should be suspicious that this process really does track the objective virtues,  
25 and thus the truth. But insofar as we do think that our *a priori* reasoning yields true  
26 virtue, either because we are optimistic about our *a priori* reasoning, or because  
27 we have a deflationary view such as those presented as options two and three, it is  
28 by no means a foregone conclusion that this process will lead us to converge on a  
29 single CMA that is more virtuous in every world. Insofar as we think that this  
30 reasoning is good, we might well think that it could equally lead us to be contin-  
31 gentists about these metaphysical claims.

32  
33 5. *Knowledge in a contingentist world*  
34

35 Perhaps though, there are other reasons to be a necessitarian. One might worry that  
36 contingentism raises the prospect of rampant metaphysical scepticism such that we  
37 could never have any reason to think that the metaphysics of the actual world was  
38

39 <sup>30</sup> For a discussion of some of these issues see Horgan (2000 and forthcoming).

40 <sup>31</sup> A referee made this suggestion.

1 this way rather than that. Since we can have such reasons, contingentism must be  
2 false. To sum it up, necessitarianism is the only view consistent with a decent  
3 epistemology.

4  
5 *5.1. Qualitatively indistinguishable worlds and other sceptical worries*

6 Suppose contingentism is true. Then there is a pair of qualitatively indistinguish-  
7 able worlds,  $w$  and  $w'$ , such that in  $w$  nihilistic monism is true, and in  $w'$   
8 universalistic pluralism is true. Then the metaphysical facts of fundamentality and  
9 ontology fail to supervene on the qualitative facts. This renders metaphysical facts  
10 epistemically inaccessible since we have access only to the qualitative facts and  
11 the facts that supervene on those facts. So we could never know which CMA is  
12 actually true. This is absurd, so contingentism is absurd.

13 Notice first that there is all the difference in the world between pointing out that  
14 being committed to contingentism might lead to epistemological problems, and  
15 concluding that contingentism is false on that basis. On those grounds we should  
16 conclude that there are no worlds in which there are brains in a vat who think  
17 thoughts just like ours, or worlds that are subjectively just like this one but where  
18 agents are systematically misled.

19 Having said that, contingentists might deny the existence of these qualitatively  
20 indistinguishable worlds by holding that the relevant metaphysical facts do super-  
21 vene on qualitative facts. For instance, as we will see in the following section, it  
22 might be that we have reason to hold that monism is true at gunk worlds, and  
23 pluralism is true at non-gunk worlds. So perhaps fundamentality facts supervene  
24 on facts about whether a world is infinitely divisible into parts.

25 The other option is to deny that the existence of this pair of worlds is problem-  
26 atic – or at least to deny that the necessitarian view is epistemically superior. The  
27 necessitarian holds that whichever CMA is true, it is true in all worlds, *regardless*  
28 of which qualitative facts hold. The metaphysical facts supervene on the qualita-  
29 tive facts, but they do so in an entirely trivial manner. Given necessitarianism, we  
30 know that for any worlds  $w_1$  and  $w_2$ , if  $w_1$  and  $w_2$  differ with respect to the  
31 metaphysical facts, then they differ with respect to the qualitative facts.<sup>32</sup> This is  
32 *trivially* true, because, given necessitarianism, there *are* no worlds that differ with  
33 respect to the metaphysical facts. To put it another way, *any* necessarily true claim  
34 is entailed by the qualitative facts. So if monism is necessarily true, the sense in  
35 which it is entailed by the qualitative facts is no more informative than the sense  
36

37 <sup>32</sup> Technically, A properties globally supervene on B properties iff for any worlds  $w_1$  and  
38  $w_2$ , if  $w_1$  and  $w_2$  have exactly the same world-wide pattern of distribution of B-properties, then  
39 they have exactly the same world-wide pattern of distribution of A-properties. The converse of  
40 this is sometimes known as determination. Then A properties are determined by B properties iff  
41 for any worlds  $w_1$  and  $w_2$ , if  $w_1$  and  $w_2$  differ with respect to their distribution of A properties, then  
42 they differ with respect to their distribution of B properties.

1 in which the mathematical truths are entailed by the qualitative facts. Nothing  
2 about the *nature* of a world tells us which CMA is true, because there is no  
3 difference in the qualitative facts that could produce a difference in the metaphysical  
4 facts. So we can no more ascertain which (necessary) CMA is true by examining  
5 the qualitative features of the actual world than we can ascertain which  
6 (contingent) CMA is true by examining those features. On this score, contingentists  
7 and necessitarians are in the same boat.

8  
9 *5.2. A priori conditionals, a posteriori knowledge*

10 Now, the necessitarian might maintain that she has a better account of the  
11 epistemic accessibility of metaphysical truths, because she can claim that we  
12 arrive at metaphysical knowledge through *a priori* reasoning. But the contingentist  
13 is not barred from *a priori* reasoning. The problem, I take it, is that once we allow  
14 that metaphysical truths are contingent, we allow that there are agents in exactly  
15 the same epistemic position as us, with the same *a priori* reasons, who are wrong  
16 in their metaphysical conclusions because in their world some other metaphysical  
17 claim is true.

18 As I said previously, I do not see that we can draw metaphysical conclusions  
19 from epistemological concerns or lack thereof. Still, the contingentist needs to  
20 say more. In general the worry here is how *a priori* reasoning can tell us about  
21 contingent features of our world given that there is no plausible account of the  
22 contingent *a priori*.<sup>33</sup> I think there are a few options open to the contingentist. One  
23 option is to hold a deflationary view such as those discussed earlier, and claim that  
24 the CMAs are contingent truths because different CMAs will be the most virtuous  
25 in different worlds. Then agents have access to the same *a priori* reasons, but are  
26 differently located with respect to the *a posteriori* facts about their world, and  
27 thus agents in different worlds are not in the same epistemic situation at all.  
28 No epistemological problems then arise, since there is no gap between a theory's  
29 being the most virtuous and its being true. Given a deflationist presupposition, the  
30 contingentist and the necessitarian are in the same epistemic boat – they just  
31 disagree about whether the same CMA will turn out to be more virtuous in every  
32 world. The other possibility is that one embraces the non-deflationary account –  
33 option one. This does open up epistemological worries, since there is reason to  
34 doubt that the results of ideal reflection track the real virtues. But that worry is the  
35 same for contingentists and necessitarians alike. If one assumes that ideal reflection  
36 is a good guide to the real virtues, then the debate between contingentists and  
37 necessitarians is, again, a debate about whether ideal reflection tells us that the  
38

39 <sup>33</sup> Or at least, the only accounts of the contingent *a priori* on offer are clearly not of the  
40 sort that would generalize to first-order claims in metaphysics, such as the accounts of Kripke <sup>42</sup>  
41 (1980) and Donnellan (1977).

1 same CMA is more virtuous in every world. If one does not assume any such thing,  
2 then it is hard to see how one would come by metaphysical truths whether one was  
3 a necessitarian or a contingentist. Given either of these two strategies that see  
4 metaphysical truths as synthetic *a priori*, the contingentist is in no worse a position  
5 than the necessitarian.

6 The other contingentist option is to hold that metaphysical truths are known *a*  
7 *posteriori*. *Prima facie* that seems to push contingentists in one of two unpalatable  
8 directions: towards what I will call *scientism*, on the one hand, or *anti-scientism*,  
9 on the other. To embrace scientism is to accept that *a posteriori* investigation is  
10 best understood in terms of scientific methodology. So one way or another, meta-  
11 physics will be dissolved into the natural sciences, either by scientific inquiry  
12 discovering the relevant truth-makers of the contingent claims, or by discovering  
13 that there are no such truth-makers and hence that metaphysical claims are  
14 vacuous. Neither of these possibilities bodes well.

15 Alternatively, the contingentist could embrace anti-scientism, which would be  
16 to accept that, although metaphysical claims are known *a posteriori*, scientific  
17 methodology is not the appropriate methodology. What, then, is? I tentatively  
18 make the following suggestion. Much of what metaphysicians are doing is *a priori*  
19 reasoning that yields necessary truths that are themselves conditional claims,  
20 where the antecedent of the conditional is contingent. For instance, it is an *a priori*  
21 conceptual truth that necessarily something is a tiger just in case it has features  
22  $F_1 \dots F_n$ , and has causal ancestry  $C$  (let us suppose). But it is a contingent *a*  
23 *posteriori* matter whether there are any tigers, since there might actually be  
24 nothing with those features and that ancestry. Suppose then, that there was an *a*  
25 *priori* necessary conditional claims of the form, 'if  $w$  has feature  $F$ , then  $CMA_i$  is  
26 true in  $w$ '. Then if it is a contingent matter whether or not some  $w$  has  $F$ , it will be  
27 contingent whether  $CMA_i$  is true in that world. How one sees this view depends on  
28 how one views these conditionals. One option is that they are synthetic *a priori*  
29 claims. In that case, these conditional claims add meat to the claims of the  
30 contingentists we have already met, who appeal to *a priori* reasoning to show that  
31 different CMAs are true in different worlds because different CMAs are more  
32 virtuous in different worlds. The conditionals, in effect, distil some of this infor-  
33 mation about virtue into a conditional with a contingent antecedent. Given that  
34 these conditionals have contingent antecedents, however, if it is an *a posteriori*  
35 matter whether an antecedent is true in a particular world, then it will be an *a*  
36 *posteriori* matter to determine which CMA is true at that world. All we can  
37 determine *a priori* is the set of conditionals, not which world we are in.

38 Alternatively, we might think that these conditionals are conceptual truths,  
39 therefore allowing us to embrace the view that whatever is correctly conceivable is  
40 possible. We cannot correctly conceive that the conditionals are false. We can  
41 correctly conceive that different CMAs are possible, and thus, they are possible. 29

1 But since correct conceivability involves specifying all the relevant features of a  
2 world, it will not be possible to correctly conceive both that the antecedent of those  
3 conditionals is true at a world, and the consequent false. Thus we will be able to 30  
4 determine, in conjunction with these conceptual truths, which metaphysical truths  
5 hold at which world, although that discovery will itself be *a posteriori*.

6 Are there such conditional claims? The next section considers two arguments  
7 purporting to show the necessary modal status of the CMAs. It will be useful to  
8 examine these arguments and to see why, instead, they should push us towards  
9 contingentism. In the process we can see how we might come up with conditional  
10 claims of the above form. It will then be a further question whether these condi-  
11 tionals are best thought of as conceptual truths or as synthetic *a priori* claims, or  
12 whether we find some of both.

13  
14 5.2.1. Conditional claims: a gunky example

15 A particular is composed of gunk just in case for every part of that particular, that  
16 part has a further proper part. Call a world entirely composed of gunk a *gunk*  
17 *world*. It has been claimed that the possibility of a gunk world provides an  
18 argument for monism (Schaffer, unpublished). In a world that is infinitely divisible  
19 into parts, there are no simples. There is no 'bottom level' of entities that can be the  
20 fundamental ones from which everything else is composed. In a gunk world  
21 pluralism is false, and, arguably, monism is true: the world is fundamental.<sup>34</sup> Call  
22 this the argument from gunk. As I see it, the argument from gunk bolsters the claim  
23 that the CMAs are contingent theses. For simplicity, and I will not argue the case  
24 here, let us suppose that restricted composition is necessarily false because any  
25 non-vague restriction on composition will be arbitrary or *ad hoc* (this is grist to the  
26 necessitarian mill since it removes one possible source of contingency). Then we  
27 can offer the following argument:

- 28  
29 (1) Restrictivist monism is necessarily false (the arguments from vagueness  
30 and non-arbitrariness).  
31 (2) In a gunk world, pluralism is false (argument from gunk).  
32 (3) In a gunk world, nihilism is false (from the definition of gunk).  
33 (4) Therefore in a gunk world restrictivist monism and restrictivist pluralism  
34 and universalist pluralism and nihilism pluralism and nihilist monism are  
35 false (by (1)–(3)).  
36 (5) At any world *w*, either universalist pluralism or nihilism pluralism or  
37 nihilist monism or universalist monism is true.  
38 (6) Therefore in a gunk world, universalist monism is true.

39  
40 <sup>34</sup> Whether this is so is debatable. For more on this see Cameron (2007).



1 The controversial claim here is surely (5), which says, in effect, that the four  
2 CMAs mentioned in this paper exhaust the metaphysical possibilities if contin-  
3 gentism is true. Or, to put it another way, they are the only epistemically possible  
4 metaphysical theories if necessitarianism is true. But perhaps we can correctly  
5 conceive of a gunk world in which, say, some mid-level particulars are fundamen-  
6 tal, and these unrestrictedly compose and unrestrictedly decompose into further  
7 particulars. Then restricted composition is false, as per (1). Nihilism is false, as per  
8 (3), and pluralism is false, as per (2). But monism is also false, since it is the  
9 mid-level particulars that are fundamental. If correct conceivability is a guide to  
10 possibility and this view is correctly conceivable, then (6) is false: not all gunk  
11 worlds are universalist monist worlds. It might be part of our concept of funda-  
12 mentality that it cannot be arbitrary or *ad hoc* which particulars are fundamental.  
13 It is no accident that for the pluralist, the fundamental things are the ultimate  
14 simples, and for the monist, the fundamental thing is the whole itself. The notion  
15 that some other level of particular could be fundamental, and there exist both  
16 composition and decomposition relations, might be a conceptual error. It is unclear  
17 how plausible this contention is. At any rate, the possibility of this alternative  
18 CMA is not only a problem for contingentists who think that correct conceivability  
19 is a guide to possibility. Those who think that metaphysical truths are synthetic *a*  
20 *priori* truths can only rule out the possibility of such a view if they think there is  
21 no world in which that CMA is the most virtuous. Perhaps we can determine this  
22 *a priori*. Or perhaps we can show that such a view is conceptually incoherent. If  
23 not, the conditional claim that we are trying to attain cannot be of the form, 'if *w*  
24 is a gunk world, then universalist monism is true in *w*'.

25 That is not to say that there couldn't be a different conditional that tells us that  
26 if *w* is a gunk world then either *w* is a universalist monist world or . . . , where we  
27 need to fill in these ellipses by amending the new gunk argument. Even if this  
28 particular argument only told us that if *w* is a gunk world then either *x* or *y* or *z*  
29 is true in *w*, this would be useful for the contingentist since other *a priori* reflection  
30 yielding other conditionals might ultimately allow us to determine that only one  
31 CMA can be true in *w*. To simplify matters, let us suppose that the new gunk  
32 argument is sound, whilst keeping in the back our minds that, even if it is not, an  
33 amended form of the argument will yield a different conditional that need not be  
34 useless to the contingentist.

35 (6) is an *a priori* necessary truth. Since it is surely a contingent matter whether  
36 a world is a gunk world or not, *prima facie* the argument ought to push us towards  
37 contingentism about universalist monism. The necessitarian might, however, add  
38 in some premises to try to get out a necessitarian conclusion. She might add in (7).

39 (7) There is a possible gunk world.

40 The contingentist too endorses (7). But Schaffer thinks that the gunk argument  
41 plus (7), plus what he calls the *generality constraint* will yield a necessitarian

1 conclusion. According to the generality constraint, the metaphysically basic enti-  
2 ties must have a form that fits all possibilities. In other words, there are no ways the  
3 world could be that are not ways the base could be (Schaffer, unpublished, pp.  
4 9–10). Let us add the generality constraint to the above argument to create the *new*  
5 gunk argument.

6 (8) The metaphysically fundamental entities must have a form that fits all  
7 possibilities.

8 If gunk worlds are possible, then the basic entities must have a form that is  
9 consistent with those entities existing in a gunk world. In a gunk world, the world  
10 is fundamental – it *is* the basic entity. Hence the new gunk argument entails that  
11 our account of the basic entities must be one according to which the world is  
12 fundamental. Thus the conclusion to the new gunk argument is that monism is  
13 necessarily true. Notice that even if we accept the new gunk argument, it is not  
14 sufficient to establish necessitarianism, since it establishes Claim 1 (that monism  
15 is necessarily true) but not Claim 2. It is consistent with the new gunk argument  
16 that universalism is true in some worlds (the gunk worlds) and nihilism in others  
17 (the non-gunk worlds), and hence that universalist monism and nihilist monism are  
18 contingent views.

19 Setting this aside though, is there any reason to believe (6)? Schaffer gives one  
20 argument that does not presuppose necessitarianism, namely that if (6) did not  
21 hold this would entail a spurious multiplication of possibilities. What is so bad <sup>31</sup>  
22 about positing spurious possibilities? Well, it flouts the desideratum of ontological  
23 parsimony. We might not be worried about positing additional possible worlds,  
24 since possible worlds are cheap unless one is a modal realist. But in positing  
25 additional possible worlds we posit additional alien properties and relations, and  
26 this ontological profligacy is objectionable.

27 Notice that this argument presupposes either that modal ersatzists will eschew  
28 positing impossible worlds, or that, if they do posit them, they will be less <sup>32</sup>  
29 ontologically committed to the entities in those worlds. For if one thinks of the  
30 ontology of possible and impossible worlds as on a par, then it makes no difference,  
31 in terms of ontological parsimony, whether one takes more or fewer worlds to be  
32 possible. But even setting aside the issue of impossible worlds, ontological parsimony  
33 only requires limiting ontology to that which is explanatorily required. The  
34 contingentist *precisely* does not think it is a spurious multiplication. She thinks she  
35 has good reason to reject necessitarianism, in which case those worlds represent  
36 genuine possibilities. But if we have no independent reason to endorse (8), we have  
37 no reason to think that the new gunk argument entails the necessary truth of monism.

38 Instead, the new gunk argument minus (8) supports contingentism. If gunk  
39 worlds are possible, then, by the new gunk argument, we have reason to think that  
40 in a gunk world monism is true. But what should we think about non-gunk worlds?  
41 Plausibly, we can mount an argument analogous to the gunk argument. In a

1 non-gunk world, not every part has a further part. This entails that some particulars  
2 are simple. From this, we can get the following *non-gunk argument*.

- 3  
4 (1) Restrictivist pluralism is necessarily false (the arguments from vagueness  
5 and non-arbitrariness).  
6 (2) In a non-gunk world there are simples.  
7 (3) Nihilistic monism is false in any world with simples (from the definition  
8 of nihilist monism).  
9 (4) In any world  $w$ , either universalist pluralism or nihilism pluralism or <sup>33</sup>  
10 nihilist monism or universalist monism is true.  
11 (5) A non-gunk world is a world in which either nihilistic pluralism, or <sup>34</sup>  
12 universalist pluralism, or universalist monism is true.  
13

14 Again, this argument includes the controversial claim (4), which, for current  
15 purposes, we are accepting. The non-gunk argument does not tell us which CMA  
16 is true in a non-gunk world. Once we have a whole set of conditionals, however,  
17 we might be able to determine at which worlds which CMA is true. At the very  
18 least, we might be able to know which CMA is true in some worlds, and narrow it  
19 down substantially in others. The new gunk argument provides the kind of con-  
20 ditional claim that contingentists are looking for. It gives us reason to endorse the  
21 conditional claim, 'if  $w$  is a gunk world, then universalist monism is true in  $w$ '. Or  
22 perhaps, if premise (5) of the new gunk argument is false, that argument gives us  
23 a conditional more like that of the non-gunk argument. Either way, the resulting  
24 conditional is necessary *a priori*. Is it a conceptual truth?

25 I think it is plausible that it is a conceptual truth. If (6) is true, then we *cannot*  
26 correctly conceive of a gunk world in which universalist monism is false. For what  
27 it is to be a gunk world is to be a world where nihilism is false, and if it is a  
28 conceptual truth that the four CMAs are the only possible metaphysical views,  
29 then once we specify the nature of a gunk world we will find the conditional to be  
30 conceptually necessary. On the other hand, if (5) is false, then the new gunk  
31 argument will yield a different conclusion that includes more views in the conse-  
32 quent: but plausibly that conditional, too, will be a conceptual truth about gunk  
33 worlds. It follows from the nature of a gunk world that it is either a world in which  
34  $x$ ,  $y$  or  $z$  is true at that world. That conditional, like the conditional we reach in the  
35 non-gunk argument, is a more complex one. Each of these is a truth we could only  
36 come to after a good deal of reflection. But (given that 4 is a conceptual truth) it  
37 does seem to follow from the concept of a non-gunk world that that world will be  
38 one in which either nihilistic pluralism, universalist pluralism, or universalism  
39 monism is true. Having correctly conceived of a non-gunk world, one could not, in  
40 fact, conceive that that was a world in which nihilistic monism was true. That is  
41 conceptually incoherent. Given that we make further discoveries about other  
42 conditionals, we might find a narrower conceptual claim that links a non-gunk

1 world with a particular CMA. That remains to be seen. But even with these two  
2 conditionals we can go some way towards a contingentist epistemology.

3 In general, then, we first engage in *a priori* reflection that yields conditional  
4 claims. Since the antecedent is contingent, we require *a posteriori* facts to deter-  
5 mine which world we are in. Nevertheless, the threat of scepticism does not arise,  
6 since to the extent that we can be sure that ours is, say, a gunk world we can be sure  
7 which CMA is true. So although agents in every world might be in the same  
8 *a priori* situation, all coming not know the very same sets of conditionals, they will 35  
9 draw different conclusions about their own world, depending on which of the  
10 antecedents of various conditionals they take to be true.

11 Consider another example.

12  
13 5.2.2. Conditional claims and quantum mechanics

14 Schaffer marshals another argument for monism, what I call *the argument from*  
15 *quantum mechanics*. Given the phenomenon of quantum entanglement, the causal  
16 story that physics tells is more likely to be holistic than local. Monism is more  
17 consistent with a holistic causal story than is pluralism, and therefore monism is  
18 more consistent than pluralism with what we currently know about quantum  
19 mechanics (Schaffer, unpublished, pp. 21–25). Let us grant the still speculative  
20 conclusion that the truths of quantum mechanics *militate in favour of* a monistic  
21 metaphysics.<sup>35</sup> Then we have reason to conclude that in any world governed by the  
22 laws of quantum mechanics, monism is true.

23 This reasoning suggests that monism is true in worlds where the quantum  
24 mechanical laws hold. Given that we have no reason to appeal to the generality  
25 principle, if there are worlds with non-actual laws, as is plausibly the case, then in  
26 those worlds we might have no reason to think that monism is true. More particu-  
27 larly, there could be non-actual laws that militate in favour of pluralism. In such  
28 worlds the physics is very local, say, and not at all holistic. In those worlds we have  
29 reason to think that pluralism is true.

30 Now, whatever exactly we make of these arguments, it is fairly clear that the  
31 conditional claims we get will not be conceptual truths. We have *a priori* reasons  
32 to think that worlds with quantum mechanics are monistic, and that worlds with  
33 other very different laws are pluralistic. In this case the conditionals are synthetic  
34 *a priori*.

35 Whether all such conditionals are synthetic *a priori* or some are conceptual  
36 truths is open to debate. In some sense it does not matter, from the point of view  
37 of the epistemology of the contingentist. So long as she can come up with these  
38 conditionals, she can have good reason to think that certain worlds are ones with  
39

40 <sup>35</sup> Schaffer nowhere suggests that pluralism is inconsistent with our best physical theory,  
41 merely that, given the nature of the physical theory, it accords better with monism.

1 certain metaphysical truths, and other worlds with different truths. If all the 36  
2 conditionals are synthetic *a priori*, then her epistemic position is exactly that of the  
3 necessitarian who also thinks that the relevant metaphysical claims are synthetic *a*  
4 *priori*. Ultimately both of these views have to deny that correct conceivability is  
5 always a good guide to what is possible. Instead she embraces the synthetic *a*  
6 *priori*: the epistemology is in both cases the same; the disagreement is merely  
7 about which *a priori* claims are necessary. To the extent that the contingentist  
8 embraces these conditional claims as conceptual truths, she is in a position to hold  
9 that correct conceivability is a good guide to possibility, and that what correct  
10 conceivability tells us is that contingentism is true, but, given a sufficient array of  
11 conditionals, we can still know which metaphysical claims are true in which  
12 worlds by coming to know at which worlds the relevant antecedents of such  
13 conditionals are true.

14

#### 15 6. Conclusion

16

17 I have tried to show that contingentism is no more epistemically problematic than  
18 necessitarianism. We can have reason to think, of some metaphysical claim, that it  
19 is contingently true. In particular, I think that the CMAs are views of this sort. The  
20 necessitarian about the CMAs needs to show that either monism or pluralism is  
21 necessarily true, and that if monism is necessarily true, then the correct answer to  
22 the special decomposition question is a necessary truth, and if pluralism is neces-  
23 sarily true, then the correct answer to the special composition question is a  
24 necessary truth. I hope that this paper has given us reason to think that the  
25 necessitarian fails on both counts. Whether we think of metaphysical claims as  
26 conceptual truths or as *a priori* synthetic truths, we have no good reason to think  
27 that the CMAs are modally necessary. At the very least, if the necessitarian thinks  
28 we do then the emphasis is on her to show us why.

29

30 Moreover, it may be that contingentism has other benefits. Everyone needs an  
31 account of the hyperintensional, contingentists included. Since opposing meta-  
32 physical views like the CMAs are pretty clearly not conceptually incoherent, the  
33 necessitarian needs a story about the content of necessarily false metaphysical  
34 claims. She had better have a way of making sense of conditionals with necessarily  
35 false antecedents. Likewise, I noted that some of the *a priori* necessary conditional  
36 claims the contingentist will appeal to look like conceptual truths, whereas others  
37 look less so. So the contingentist will need to say something about the content of  
38 the negation of *these* necessarily true conditionals. But it may be, and here is a  
39 tentative suggestion only, that the contingentist does not need such a *robust*  
40 account of the hyperintensional as does the necessitarian. Those who are drawn to  
41 some kind of modal realism – the view that there are irreducible modal truths that  
outstrip the truths about our world (not *concrete* modal realism) – as opposed to

1 ersatzism might embrace ersatzism about impossible worlds as a way of making  
2 sense of hyperintensional content. The idea, I take it, is that one can build one's  
3 ersatzist hyperintensional content out of one's realist intensional content.

4 Consider the, let us suppose, necessarily true conditional that in gunk worlds  
5 monism is true. The conditional 'there is a gunk world in which monism is false'  
6 is necessarily false, and thus even the contingentist will need to appeal to some  
7 ersatz impossible world. But she, as distinct from the necessitarian, has additional <sup>37</sup>  
8 resources in dealing with conditionals like this, since for her there are possible  
9 gunk worlds and possible worlds in which monism is false. Indeed, there are  
10 possible worlds corresponding to each CMA. So she has a lot of background  
11 intensional content upon which to build her hyperintensional content, as it were.  
12 Since the necessitarian has much less intensional content, one might, therefore,  
13 suppose that she will need a more robust account of hyperintensional content.  
14 At least, it is worth contingentists thinking about whether they can parlay their  
15 additional plethora of possible worlds into an advantage when it comes to the  
16 hyperintensional. That might truly push one towards contingentism.\*

17  
18 REFERENCES

- 19 ARMSTRONG, D. and HEATHCOTE, A. 1991, 'Causes and Laws' *Nous* **25**, pp. 63–73.  
20 BLOCK, N and STALNAKER, R. 1999, 'Conceptual Analysis, Dualism and the Explanatory Gap',  
21 *Philosophical Review* **108**, pp. 1–46.  
22 CAMERON, R. 2007, 'Turtles all the Way Down: Regress, Priority and Fundamentality', *Philosophical*  
23 *Quarterly* **58**, pp. 1–14.  
24 CAMERON, R. forthcoming, 'The Contingency of Composition.' *Philosophical Studies*. <sup>38</sup>  
25 CARNAP, R. 1932, 'The Elimination of Metaphysics through Logical Analysis of Language', in: A.J.  
26 Ayer, ed., *Language, Truth and logic 1946*, Harmondsworth: Penguin. <sup>39</sup>  
27 CHALMERS, D. 1996, *The Conscious Mind*, Oxford: Oxford University Press.  
28 CHALMERS, D. 2004, 'Epistemic Two Dimensional Semantics', *Philosophical Studies* **118**, pp. 153–  
29 226.  
30 DONNELLAN, K. 1977, 'The Contingent A Priori and Rigid Designators', *Midwest Studies in Philoso-* <sup>40</sup>  
31 *phy* **2**.  
32 FIELD, H. 1993, 'The Conceptual Contingency of Mathematical Objects' *Mind* **102**, pp. 285–299.  
33 HALE, B. and WRIGHT, C. 1992, 'Nominalism and the Contingency of Abstract Objects', *The Journal*  
34 *of Philosophy* **89**, pp. 111–135.  
35 HELLER, M. 1990, *The Ontology of Physical Objects: Four Dimensional Hunks of Matter*, Cambridge:  
36 Cambridge University Press.  
37 HIRSCH, E. 2002, 'Quantifier Variance and Realism', *Philosophical Issues*, **12** *Realism and Relativism*,  
38 pp. 51–73.  
39 HORGAN, T. and POTRČ, M. 2000, 'Bobjectivism and Indirect Correspondence', *Facta Philosophica* **2**,  
40 pp. 249–270.  
41 HORGAN, T. and POTRČ, M. (forthcoming) *Austere Realism*. Cambridge, MA: MIT Press. <sup>41</sup>  
42 JACKSON, F. 1998, *From Metaphysics to Ethics: A Defence of Conceptual Analysis*, Oxford: Oxford  
43 University Press.

44  
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- 1 JACKSON, F. 2004, 'Why we need A-intensions', *Philosophical Studies* **118**, pp. 257–277
- 2 KRIPKE, S. 1972, *Naming and Necessity*, Cambridge, MA: Harvard University Press.
- 3 LEWIS, D. 1986, *On the Plurality of Worlds*, New York: Blackwell Press.
- 4 LEWIS, D. 1988, 'Vague Identity: Evans Misunderstood', *Analysis* **48**, pp. 128–130.
- 5 LEWIS, D. 1994, 'Humean Supervenience Debugged' *Mind* **103**, pp. 473–490.
- 6 MACBRIDE, F. 2006, *Identity and Modality*, Oxford: Oxford University Press.
- 7 MCCALL, S. 1994, *A Model of the Universe: Space–Time, Probability, and Decision*, Oxford: Clarendon Press.
- 8
- 9 MARKOSIAN, N. 2007, 'Restricted Composition', in: D. Zimmerman, T. Sider and J. Hawthorne, eds,
- 10 *Contemporary Debates in Metaphysics*, Oxford: Oxford University Press.
- 11 MERRICKS, T. 2001, *Objects and Persons*, Oxford: Oxford University Press.
- 12 MILLER, K. 2005, 'What is Metaphysical Equivalence?' *Philosophical Papers* **34**, pp. 35–74.
- 13 PARSONS, J. 2006, 'Conceptual conservatism and contingent composition', Unpublished.
- 14 PUTNAM, H. 1988, 'After Metaphysics, What?' in: D. Zimmerman and P. van Inwagen, eds, *Metaphysics: The Big Questions*, Oxford: Basil Blackwell, pp. 388–392.
- 15
- 16 PUTNAM, H. 1987, 'Truth and Convention', in: D. Zimmerman and P. van Inwagen, eds, *Metaphysics: The Big Questions*, Oxford: Basil Blackwell, pp. 392–398.
- 17
- 18 QUINE, W.V.O. 1963, 'Identity, Ostension and Hypostasis' in his *From a Logical Point of View*, Harper and Row, pp. 65–79. 43
- 19
- 20 ROSEN, G. 2006, 'The Limits of Contingency', in: F. McBride, ed., *Identity and Modality*, Oxford: Oxford University Press, pp. 13–38.
- 21
- 22 SCHAFFER, J. (unpublished) 'Monism: the Priority of the Whole'.
- 23 SCHAFFER, J. 2005, 'Quiddistic Knowledge', *Philosophical Studies* **123**, pp. 1–32.
- 24 SCHAFFER, J. 2007, 'For (Priority) Monism: Reply to Sider', *Analysis* **67**. 44
- 25 SIDER, T. 2001, *Four-dimensionalism: An Ontology of Persistence and Time*, Oxford: Oxford University Press.
- 26
- 27 SIDER, T. 2003, 'Against Vague Existence', *Philosophical Studies* **114**, pp. 135–146. 45
- 28 SIDER 2007, 'Against Monism', *Analysis* **67**. 46 28
- 29 UNGER, P. 1979, 'I Do Not Exist', in: G. F. Macdonald, ed., *Perception and Identity*, London: Macmillan Press. 47
- 30
- 31 VAN INWAGEN, P. 1990, *Material Beings*, New York: Cornell University Press.
- 32 WILLIAMS, J.R.G. 2006, 'Illusions of Gunk', *Philosophical Perspectives* **20**, pp. 493–513.
- 33 YABLO, S. 1998, 'Does Ontology Rest on a Mistake?' *Proceedings of the Aristotelian Society* supplementary volume **72**, pp. 229–262.
- 34

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q40	AUTHOR: Is thee a page range for DONNELLAN, K. 1977,?	

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q42	AUTHOR: Kripke (1980) has not been included in the Reference List, please supply full publication details.	
q43	AUTHOR: Please provide a location for Harper and Row	
q44	AUTHOR: Please supply a page range for SCHAFFER, J. 2007	
q45	AUTHOR: Sider, 2003 has not been cited in the text. Please indicate where it should be cited; or delete from the Reference List.	
q46	AUTHOR: Please provide a page range for SIDER 2007	
q47	AUTHOR: Please provide a page range for Unger, P. 1979	

# MARKED PROOF

## Please correct and return this set

Please use the proof correction marks shown below for all alterations and corrections. If you wish to return your proof by fax you should ensure that all amendments are written clearly in dark ink and are made well within the page margins.

<i>Instruction to printer</i>	<i>Textual mark</i>	<i>Marginal mark</i>
Leave unchanged	... under matter to remain	Ⓟ
Insert in text the matter indicated in the margin	∧	New matter followed by ∧ or ∧ <sup>Ⓢ</sup>
Delete	/ through single character, rule or underline or ┌───┐ through all characters to be deleted	Ⓞ or Ⓞ <sup>Ⓢ</sup>
Substitute character or substitute part of one or more word(s)	/ through letter or ┌───┐ through characters	new character / or new characters /
Change to italics	— under matter to be changed	↙
Change to capitals	≡ under matter to be changed	≡
Change to small capitals	≡ under matter to be changed	≡
Change to bold type	~ under matter to be changed	~
Change to bold italic	≈ under matter to be changed	≈
Change to lower case	Encircle matter to be changed	≡
Change italic to upright type	(As above)	⊕
Change bold to non-bold type	(As above)	⊖
Insert 'superior' character	/ through character or ∧ where required	Υ or Υ under character e.g. Υ or Υ
Insert 'inferior' character	(As above)	∧ over character e.g. ∧
Insert full stop	(As above)	⊙
Insert comma	(As above)	,
Insert single quotation marks	(As above)	ʹ or ʸ and/or ʹ or ʸ
Insert double quotation marks	(As above)	“ or ” and/or ” or ”
Insert hyphen	(As above)	⊥
Start new paragraph	┌	┌
No new paragraph	┐	┐
Transpose	┌┐	┌┐
Close up	linking ○ characters	○
Insert or substitute space between characters or words	/ through character or ∧ where required	Υ
Reduce space between characters or words		↑