

Physicalism and Cosmic Hermeneutics: Comments on Horgan*

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Terry Horgan's, "Materialism: Matters of definition, defense, and deconstruction" (forthcoming, *Philosophical Studies*) addresses three questions: "How should the metaphysical hypothesis of materialism be formulated? What strategies look promising for defending this hypothesis? How good are the prospects for its successful defense...?" Here I'll discuss Horgan's answers to the first two questions, suggesting that each is problematic. Then I will step back to look at the structure from which Horgan is working. I argue that we should reconsider Horgan's assumptions concerning what form a defense of materialism must take, especially in light of his professed dissatisfaction with his own pessimistic assessment of the prospects of such a defense. In particular, I argue that Horgan has not shown that all metaphysically brute relations are ipso facto physically unacceptable. If I am right, physicalists have more resources than is often supposed. Because Horgan's view is shared also by Frank Jackson (1998), David Chalmers (1996), and many of their interlocutors, the present result has quite general implications for the current debate over physicalism.¹

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¹ Horgan often (as in his title) uses the term "materialism" rather than "physicalism" but the latter has been more common in recent discussions. Some reserve the term "materialism" for a metaphysical view tied to an antiquated notion of material substance, e.g., one current in the Seventeenth and Eighteenth Centuries. Others use the terms interchangeably, as I assume they may be used in this case.

1. How Should Physicalism be Formulated?

It is commonly held that there are two obstacles to precisely formulating the doctrine of physicalism: Hempel's Problem, and Hume's Problem.² Hempel's Problem is that if physicalism is to be formulated in terms of physics—or in terms of any science, for the problem is fully general if it is a problem at all—whether to use the current or future science. If physicalism is formulated in terms of current physics, then it is most likely false because current physics is at least very likely to be false and is perhaps known to be incomplete or inconsistent. If physicalism is formulated in terms of future physics, then (the worry goes) physicalism will prove to be trivial, vacuous, or simply of indeterminate content. Horgan offers no direct guidance on Hempel's Problem, though he seems to adopt a future-physics view.³

The second obstacle for formulating physicalism is Hume's Problem. This is the problem of saying what relation or relations must hold between the physical entities (properties, events, or whatnot) and the other non-physical but physically “kosher” entities (properties, events, or whatnot), such that standing in that relation is what renders the other entities as physically “kosher” rather than emergent, dualistic, or otherwise “queer.” The challenge that Horgan faces is that any such relation must itself be one that is physicalistically acceptable, or as he says, “superdupervenient” (Horgan 1993). With this in mind, Horgan settles on the following formulation of physicalism:

(M₃) (1) The actual world is a minimal physical duplicate of itself,

² These issues are discussed concisely in Jackson 1998 and Melnyk 2003, among other places. For detailed discussion, see the special issue of *Philosophical Studies* (forthcoming), in which Horgan's paper appears.

³ Horgan says the project of vindicating physicalism makes use of “a correct and completed physics.”

- (2) for any physically possible worlds w_1 and w_2 , if (i) w_1^* is a minimal physical duplicate of w_1 , (ii) w_2^* is a minimal physical duplicate of w_2 , (iii) r is a spatiotemporal region of w_1^* , (iv) s is a spatiotemporal region of w_2^* , and (v) r and s are intrinsically just alike in all physical respects, then r and s are just alike in *all* intrinsic respects, and
- (2) there are no brute inter-level relations of metaphysical necessitation linking physical particulars or properties to non-physical particulars or properties.

Clauses (1) and (2) alone constitute a formulation of physicalism that Horgan calls (M_2) .

But Horgan argues that satisfying (M_2) is not sufficient for securing the truth of physicalism, and that the addition of (3) is required. Much could be said about (1) and (2). However my present interest is in the third clause. Clause (3) is intended to ensure that (M_3) rules out various kinds of emergentism and property dualism.

As I understand it, clause (3) is supposed to capture the Humean Principle that there are no necessary connections between distinct existences. The only permissible necessitating relations, then, will be those captured by physical theory itself (nomological connections) and those that are broadly conceptual (logical or analytic connections, for example.) This, I imagine, is supposed to be an empiricist commitment, and physicalists are supposed to be empiricists; so (3) is supposed to be unobjectionable. But I think we need to ask several questions about (3). The big question is whether physicalists must accept some such injunction against metaphysically necessary connections. If so, we should ask how that constraint should be implemented, and whether it is well expressed

by (3). I'll start with the last question about the formulation, and work my way back to the first one about the general need.

Suppose that some injunction against metaphysically necessary connections is needed. If so, then (3) as stated may be weaker than many Humeans would want. As I understand the position, Humeans mean to deny that there are any necessary relations between particulars that are not either nomological or "logical" (where that means logical or conceptual, where "conceptual" is an epistemic notion.) Let's suppose that by "brute" Horgan just means "not either nomological or 'logical'" so that we don't worry about that aspect of the claim for now. Still, someone might think that Horgan's formulation limits the constraint only to "inter-level" relations, allowing that there might be "brute" metaphysical relations so long as they are intra-level. This, for example, might allow "brute" a posteriori identities—of the sort rejected as physically unacceptable by Chalmers and Jackson 2001. Arguably these relations would be intra-level, and therefore not violate the letter of (M₃). So Chalmers and Jackson, for example, may judge (M₃) to be too weak.

On the other hand, we might think that the requirement that the objectionable connections link "physical particulars or properties to non-physical particulars or properties" is not a separate part of the constraint, but rather an elucidation of what it is to be "inter-level." (Then there are two levels: physics and everything else.) On this view, any relation between physical particulars or properties and non-physical particulars or properties is ipso facto an inter-level relation. As an interpretation of (3), this is not implausible. Indeed, I could be accused of willful misunderstanding in suggesting

otherwise. But I think that Horgan's articulation of (3) invites such probing, so I wonder why he doesn't simply state the bald Humean Principle.

Leaving aside the exact formulation that the constraint should take but still assuming that some limit is needed, let us consider whether conjoining a third clause to (M₂) is the right way to implement the solution. The trouble with this cobbling tactic is that it looks rather ad hoc. We notice that the conjunction of (1) and (2) appears to be compatible with certain kinds of emergence. This is deemed problematic. So in response we add a clause that says, in effect, "and no emergence." This works, of course. But it would be nice if the constraint fell out of the rationale of the formulation rather than being tacked on. I don't have a suggestion for how to do this; and this worry doesn't by itself rise to the level of an objection. Call it an itch.

This brings us to the big question of whether physicalism ought to include a constraint like (3) at all. One salve for the itch that (3) is ad hoc is to endorse the general Humean Principle. This would be less ad hoc and would obviate my quibbles about the formulation of (3). But then either the principle is universally acceptable, in which case it needn't be included in the formulation of physicalism, or it is not a universal constraint but only one that physicalists ought to accept. Horgan has here given us no argument for universal acceptance of the Humean Principle, and there is some reason to think that it is false. For example, some plausible accounts of causation violate the general principle. So I don't think that Horgan has provided a decisive reason to think of the Humean Principle as universally acceptable.

On the other hand, if the Humean Principle need not be accepted universally, then some reason that is peculiar to physicalism must be given for the inclusion of something

like the Principle in the formulation of physicalism— whether as (3) or in a stronger or weaker form. If the reason that physicalists ought to accept such a constraint is to rule out certain kinds of emergent or dualistic scenarios, then the general Humean Principle may be overkill. If, however, there is a principled reason that physicalists should accept a constraint like (3), then we are in need of a non-question-begging argument to that effect. We need an argument to show that physicalists cannot accept any “brute” necessitating relations. The argument cannot be that what is brutally necessitated is ipso facto physically unacceptable because that is precisely what is at question. Do we have a general argument for the conclusion that no metaphysical necessities are physically acceptable?

Horgan offers some suggestive cases, but at this point it will not be enough to point out that some examples of entities or properties that stand in brute relations are not physically acceptable. We may agree that some brute necessitating relations are not physically acceptable. It does not follow that no brute relations are physically acceptable. In Section 3 we will return to the question of what justification can be given for a constraint like (3). But first, let’s look at Horgan’s answer to the second question he poses: What strategies look promising for defending physicalism?

2. What are the Strategies for Defending Physicalism, and What are Its Prospects?

(M₃) is not stated in terms of facts, but rather in terms of duplication and similarity. It appears to be a thesis about properties and entities. Nevertheless, Horgan sees the defense of (M₃) as the project of showing that all facts are physically acceptable, a project that he has dubbed “cosmic hermeneutics” (Horgan 1984). If physicalism is true, then a

LaPlacean Demon can “[read] off the cosmos’s entire history from its physical history.” More precisely: if physicalism is true then a thinker “of unbounded cognitive capacity” who “holds before her mind the complete physical history of the cosmos (as described in the language of a correct and completed physics” will be able to “ascertain, on the basis of physical history, all facts about the cosmos as described in any vocabulary whatever.” The Demon’s task is thus interpretive or hermeneutical: given “a very rich conceptual/linguistic repertoire” the Demon should be able to redescribe the physical world (i.e., world as described by physics) using any non-physics concepts and terms that she has mastered. For the Demon to determine some non-physics fact, e.g., that AUTHOR is typing on a Macintosh computer or that it is a sunny day in London, she need only examine the way the world is physically and figure out whether it is an acceptable interpretive move to say, “AUTHOR is typing on a Macintosh computer” or “It is a sunny day in London.” This interpretive act of “figuring out” must itself be physically acceptable—the Demon cannot use her god-like powers, she must use only “logic” so that her mode of ascertaining the non-physics facts from the physics facts (plus the non-physics concepts) will be a kind of deduction.

I have my doubts about whether physicalists are committed to the project of cosmic hermeneutics, to which I will return in Section 3. (For some reasons see Byrne 1999.) But let us presently consider how Horgan supposes that cosmic hermeneutics could be carried out. Cosmic hermeneutics will clearly be possible if, for every non-physics entity, there are necessary and sufficient conditions for its existence that can be formulated using the concepts and terms of strict physical theory. Almost nobody believes this is true. Rather, Horgan supposes that we can relax the requirement so that

what is required are not necessary and sufficient conditions but a weaker variety of “conceptual analyses” of the sort favored by Chalmers 1996, Jackson 1998, Chalmers and Jackson 2001, and others. But Horgan doubts that this will be successful, even when the requirements are thus relaxed.

The more promising tactic, according to Horgan, is what he calls establishing the “ontological austerity” of non-physics entities by securing facts about them via “indirect correspondence.” For many “thoughts/statements employing non-physics-level concepts and terms” Horgan thinks that there will not be analyses that show how those thoughts or terms pick out physical items, or arrangements of physical items. Nevertheless, he supposes that it may be that “(a) they are indeed true, and yet (b) they are not ontologically committed to individuals, properties, or kinds that would answer to their singular, predicative, or quantificational constituents.” Moreover, Horgan urges, these thoughts or statements cannot be given an eliminativist treatment. This is because elimination would require that they be paraphrased into some other ontologically non-committed form that can be given a conceptual analysis, but no such paraphrases are available for many examples. This clarification, I think, is meant to do double duty. On the one hand, it cuts off an avenue of response from the conceptual analysts, as Horgan explicitly notes. On the other hand, it distinguishes the “ontological austerity via indirect correspondence” approach from simple elimination of the troublesome entities.

The exploration of irrealist alternatives has been a running theme in Horgan’s work (e.g., Horgan 1993, Graham and Horgan 1994). But in the present context the proposal that we consider indirect correspondence as an ideological vindication for physicalism is rather unsatisfying. First, as Horgan concedes, we need to have “certain

facts about human mentality—in particular facts about people’s goals and purposes” up and running before we can implement the indirect correspondence strategy in the way that he suggests. (This, it seems to me, includes not just “facts about human mentality” but also some significant number of facts about the non-mental world. For I don’t know that solitary Cartesian minds can have the kinds of rich purposes and goals needed for Horgan’s hermeneutic approach.) And these will have to be explained in some other way, “perhaps via the conceptual-analysis strategy.” But Horgan has already given some reasons to doubt that the conceptual analysis approach will deliver many or any facts, and I don’t see why he should suddenly become more optimistic. Indeed, the kinds of facts that would be needed include facts about mentality, including contents and goals, which are among those that many think are least susceptible to conceptual analysis.

At this point it seems to me that we should not be too optimistic about this accommodation project. Horgan’s preferred tactic is incomplete, and he himself gives reasons to doubt that it can be supplemented in an appropriate way. But setting aside the fact that the indirect correspondence strategy is incomplete, there is a second problem. The problem is that indirect correspondence is, in Horgan’s own view, a “non-starter” for some of the really tough cases, such as the facts about consciousness. He writes:

Could one perhaps adopt the ontological-austerity strategy, and claim that phenomenal concepts do not pick out any real properties at all? To me this idea seems a non-starter, because nothing is more indubitably real than one’s own phenomenal consciousness... Denying phenomenal consciousness does make it easier to be a materialist, but it does so at the cost of denying what is undeniable.

We should notice two things about Horgan's claim here. One is that indirect correspondence is going to come up short in his own estimation, a point to which we will return. Second, we should note that one of the reasons that indirect correspondence comes up short is that in Horgan's view, and despite earlier claims to the contrary, it is a kind of elimination. If truth by indirect correspondence doesn't amount to strict elimination, then it is at least unacceptably deflationary. For example, Horgan implies that if "The State of Arizona has three public universities" is judged true by indirect correspondence, this still amounts to "denying" that there are states and universities. This suggests that, egalitarian rhetoric aside, some kinds of truth are better than other kinds of truth—at least with regard to ontology. So truth by indirect correspondence really is a second rate kind of truth. And it seems to me that if it's not good enough for consciousness then it's probably not good enough, for example, for many or most causal claims. Thus truth by indirect correspondence will fall short regularly even if it can be jump-started with conceptual analysis or some other ideology.

So the prospects for physicalism being vindicated by an ideology whose truth is secured by indirect correspondence are poor. The strategy is essentially incomplete in that it depends on some other strategy for its foothold, and there are no especially promising candidates. The strategy will not work for some of the most central cases. And where it does work, the vindication it provides is of questionable value.

Since the prospects for physicalism are pretty grim to begin with, they are especially grim when we add in the "hard" problem of phenomenal consciousness. Consciousness, it is widely (but not, of course, universally) agreed, has no conceptual analysis on either the strict or loosened models. Horgan himself, as we saw, regards

indirect correspondence as unreasonably deflationary for consciousness. He thinks there is a somewhat promising strategy for accommodating consciousness specifically (assuming that the other strategies could be fixed for all the other stuff), which he calls “New Wave Materialism.” But, for reasons that I cannot discuss here, he ultimately judges that New Wave Materialism is incoherent.⁴

I am more interested in the resting place at which Horgan finds himself. He concludes the paper by writing, “I myself still want to embrace materialism, but I don’t know what an adequate materialist account of phenomenal consciousness would look like.” But if I am right, the problem is even more serious. Horgan only knows what an adequate materialist account of anything would look like *insofar as he can assume that the indirect correspondence strategy can be salvaged*. This assumes that some other account can be given for various facts about mentality, including facts about goals and purposes. But he himself has given reasons to doubt that conceptual analysis generally workable, and many others have raised doubts as well. As we’ve been offered no other ideological solution to the problem, Horgan’s subsequent optimism seems misplaced even when judged by his own standards. This leaves Horgan and other physicalists in quite a bind.

If physicalism requires an ideological strategy for satisfying the demands of cosmic hermeneutics—which is supposed to follow from (M₃)—then I think we should

⁴ Although I am more friendly to the “New Wave Materialist” approach than Horgan, this may be because I have doubts as to whether physicalists must meet the demands of cosmic hermeneutics. On my view, New Wave Materialism may prove useful, even if it is not useful in the particular way that Horgan supposes that it must be. For example, it may help to explain-away various *prima facie* counterexamples. Someone who favors New Wave Materialism could find my suggestions, below, to be unnecessary. But I do not think they are incompatible, and I think some New Wave Materialists would be happy to embrace my diagnosis along with the New Wave proposal.

say that we have no idea how physicalism could be true. This, I believe, is Horgan's position.

But I think of physicalism as an ontological doctrine, so I don't see that its defense must be ideological. Ideological solutions enter the picture for Horgan because the constraints of (M₃) disallow metaphysical solutions. By lights of (M₃) metaphysical solutions will be designated as unacceptably "brute" in violation of clause (3). I've already raised some questions about the argument for (3), so this is a good time to revisit that clause and the Humean Principle.

3. Cosmic hermeneutics and the Master Argument

There is a basic argument schema that is commonly (if implicitly) accepted as establishing the ground rules for the contest over physicalism about the mind. Horgan seems to accept these ground rules. So too, for example, Jackson and Chalmers. I call this schema the Master Argument. Let the B-facts (or properties, relations, or entities) be the facts (properties, relations, or entities) of some non-physical kind. In the present case, let them be the facts about consciousness.⁵ Then,

The Master Argument

(L) For any B, either:

- (i) B is a strictly physical, i.e., part of physics.
- (ii) B is physically, analytically, or conceptually implied by ("entailed by," "reducible to," or "transparently explained by") the strictly physical.
- (iii) B is sui generis ("autonomous") vis-à-vis the physical.
- (iv) There is no B.

⁵ This formulation is informed by the discussion of Lynch and Glasgow (*Philosophical Studies*, 2003).

- (P1) (iv) is false; elimination of B is not an option.
- (P2) (i) is false; by definition or inspection we know that B is not strictly physical.
- (P3) (ii) is false; reduction of B is impossible.
- ∴ (C1) Therefore, (iii), B is sui generis. (from L and P1-P3)
- (P4) Physicalism is incompatible with (iii), B's being physically sui generis.
- ∴ (C2) Therefore, Physicalism about B is false. (from P4 and C1)

Premise (L) demands that we locate the B-facts relative to the strictly physical facts, where (i)-(iii) are intended to exhaust the options for such location and (iv) leaves the option of elimination.⁶ If the class designated by (iii) includes all facts about existing entities that are not in class (i) or (ii), then (L) is indeed exhaustive. When consciousness is at stake, all parties to the present debate accept (P1) and most accept (P2). Certainly Horgan, Jackson, and Chalmers all accept (P2).

It can be admitted that (ii) is a bit broad-brush, in order to cover various options. It is intended to capture the kind of grounding, location, or reduction that would satisfy not only Horgan but also Chalmers and Jackson (2001). The class picked out in (ii) involves the ideological or conceptual connections that are distinctive of cosmic hermeneutics, or transparent reduction if that is different. Allowing for this small amount of looseness, it is fair to say that Horgan and Chalmers accept (P3); but Jackson now rejects (P3) and that gives him way to resist the anti-physicalist conclusion of the Master Argument.

⁶ For Horgan's acceptance of (i)-(iii) see page 8, "These brute inter-level modal facts are neither (1) physics-level facts, nor (2) facts about the semantical workings of higher-level concepts and language, nor (3) facts that are logically/conceptually supervenient on facts of type (1)—that is, facts that follow logically from facts of types (1) and (2). But if materialism is right, then facts of types (1)-(3) should be all that are needed for the Laplacean demon to be able to carry out the project of cosmic hermeneutics."

Crucially, Horgan (again, like Jackson and Chalmers) accepts (P4). (P4) is exactly what is stipulated by clause (3) of formulation (M₃). The argument was that the denial of P4 is compatible with various kinds of property dualism and emergence that are definitely incompatible with physicalism, so some constraint is needed. Horgan endorses clause (3) of (M₃), so he accepts (P4).

Chalmers acceptance of (L) along with (P1)-(P4) leads him to the conclusion (C2), which he gladly accepts. But Horgan is diffident. He is unwilling to embrace (C2) outright, but does not know how to establish (ii) for consciousness and thereby reject (P3). Perhaps, like Jackson, he regards the argument as a reductio, but not having detected a flaw in his arguments for (P3) is not yet prepared to withdraw it.

What might we say in response to the Master Argument? Well, obviously we could give up (P1) and go eliminativist after all. But this is not very attractive in many cases, the case of consciousness among them. We could redefine the physical and try to help ourselves to the denial of (P2), but that is not very promising to most physicalists.⁷ Like Jackson and maybe Horgan, we could suppose that the denial of (P3) is more certain than the truth of (C2), and keep looking for an ideological solution. But Horgan's arguments should make us doubt that we know what the ideological solution will be. Instead we could deny (P4) and assert that physicalism is compatible with a kind of sui generis bruteness. Or, per Kim (2005), we might assert that something "near enough" to

⁷ But see the papers by Janice Dowell and Jessica Wilson in the special issue of *Philosophical Studies*.

physicalism is true. But this last option is not likely to go over very well if we want to be physicalists.⁸

We might also try questioning whether the Master Argument is valid. One way that the argument could fail to be valid would be if the notion of “sui generis” in part (iii) of (L) and in (P4) is equivocal. And I think there is a case to be made for this complaint. Consider Horgan’s objection to (M₂), which motivated the addition of clause (3), creating (M₃). Clause (3) says, you will recall, that “there are no brute inter-level relations of metaphysical necessitation linking physical particulars or properties to non-physical particulars or properties.” This constraint was needed, Horgan argued, because without it physicalism would be (falsely) compatible with “Moorean emergence.” But I wonder if insisting on (3) does not amount to throwing out the baby with the bathwater.

Let us look carefully at Horgan’s argument that (M₂) must be supplemented. We’ll take it step by step. First,

Consider, for instance, G. E. Moore’s metaethical position.... Moore held that *intrinsic goodness* is an objective, non-natural, property. He held that its instantiation is supervenient on the instantiation of certain natural properties (although he did not use the *term* ‘supervenient’), in a modally very strong way... He also held that the necessary connection linking the pertinent natural property to intrinsic goodness is itself metaphysically fundamental and *sui generis*—rather than being derivative from any other facts... Moorean non-naturalism in metaethics surely should not be considered consistent with metaphysical materialism. Yet... Moorean non-naturalism is indeed consistent with thesis (M₂)... So (M₂) is too weak, as it stands.

⁸ Chalmers says of Kim’s position, “Kim, often seen as an arch-reductionist, comes out of the closet as a dualist” (http://fragments.consc.net/djc/2005/09/jaegwon_kim_com.html).

Now, first things first. Moorean non-naturalism about ethical properties is intuitively incompatible with physicalism; (M₂) is compatible with Moorean non-naturalism; therefore (M₂) is not sufficient for physicalism. So far so good. But what *makes* Moorean non-naturalism incompatible with physicalism? It seems to be the fact that the Moorean ethical properties are non-natural. But this would be true regardless of whether or not they stood in any relation, modal or otherwise, to the physical properties. So we have only pushed back the question to: What makes the “Moorean” properties non-natural?

The question here, as I mean to suggest by my use of scare-quotes, is not one about the interpretation of G. E. Moore. Horgan’s point is that it seems that non-natural properties can stand in metaphysically brute relations, so such relations are not sufficient for formulating physicalism. This argument holds, if it does, regardless of what disqualifies the non-natural properties from being natural. It may be simply stipulated. But that is not Horgan’s view. He supposes that what makes Moorean properties non-natural is the very fact that “the metaphysically necessary connections that obtain between the physical supervenience-base properties and the emergent supervenient properties are themselves metaphysically fundamental and *sui generis*.” He explains,

Just as standard emergentism is at odds with materialism because it posits metaphysically fundamental *laws of nature* other than the metaphysically fundamental laws of physics (*viz.*, inter-level laws linking physical properties to emergent properties), likewise Moorean emergentism is at odds with materialism because it posits *sui generis principles of metaphysical necessitation* (*viz.*, inter-level principles expressing brute, fundamental, metaphysical-necessitation relations between physical properties and emergent properties). A doctrine worthy of the label ‘materialism’ should not countenance brute inter-level relations of

metaphysical necessitation, any more than it should countenance brute inter-level laws of nature.

But this conclusion, I am suggesting, may be too hasty. After all, the Moorean properties are already understood to be non-natural. So whatever metaphysical dependence relations they stand in will be one for which non-natural properties can be relata. So much the worse for those relations. Yet, we might ask, is it generally true that being a relata of a metaphysically fundamental necessitation relation disqualifies a property from being physically acceptable? I don't think so. Here are some examples:

- I. Suppose, as some think, that causation is a brute metaphysical necessitation relation. Now suppose that physically acceptable A causes B. Is B, ipso facto, physically unacceptable? No.
- II. Suppose, as some think, that material composition is a brute metaphysical relation. Now suppose that some physically acceptable items are fixed together, composing a new individual. Is the aggregate object, the whole, somehow physically unacceptable? No.
- III. Suppose, as some think, that some macroscopic entities constitute others, and that the constitution relation is one of brute metaphysical necessity. If a physically acceptable object such as a lump of clay constitutes another object, such as a statue, is the statue ipso facto physically unacceptable? No.
- IV. Suppose, as some think, that identity is a brute metaphysical relation. Now suppose that H₂O (the property of being H₂O) is identical to water (the property of being water). Assuming (as is usual for these debates) that the property of being H₂O is physically acceptable, would the property of being water be rendered physically incompatible if it is brutally identical to the physical property? No.

Of course, if you accept the Master Argument schema then it follows that, e.g., if the B-facts are water facts and they are brutally necessitated by the physical facts, then they are

not physically acceptable. And likewise for the other examples. But this begs the present question, which is whether the Master Argument is valid.

Needless to say, there may be reasons to doubt that causation, composition, constitution, identity and other examples are, in fact, cases of brute metaphysical necessity. But the question at hand is whether physicalists are required to reject such accounts. And I don't see that we've been given a reason for thinking so.

What I am suggesting is that from the fact that *some* brute metaphysical relations are not compatible with physicalism—e.g., magical connections, those ensured by deities, those that ground supernatural or otherwise non-natural properties, etc.—it does not follow that all are. “Brute metaphysical necessity” is not itself a relation, but a category of relations that may include causation, composition, constitution, identity, and other dependence relations. All of the examples that Horgan considers raise our suspicions because the brute metaphysical relations are stipulated to connect physical properties or entities with the kinds of properties and entities that we have independent reason to think are incompatible with physicalism: Moorean non-natural ethical properties, immaterial Cartesian souls, and such. These examples show that you can't make immaterial souls compatible with physicalism merely by asserting that they supervene on the physical with brute metaphysical necessity. But the examples do not show that standing in brute metaphysical necessity is itself physicalistically disqualifying. There may be brute metaphysical relations that have only physically acceptable relata. Causation may be a brute metaphysical relation, but it is not physically disqualifying to its relata. In short, there may be physically acceptable but brute metaphysical relations.

So the diagnosis is that the Master Argument is invalid because it equivocates. If part (iii) of (L) just says that B-facts are not of sorts (i) or (ii), then (P3) may be rejected. Physicalism is compatible with some properties or facts other than those accommodated by (i) and (ii). But if (P3)'s ban on the "sui generis" is interpreted so that it is true, then (L) is not exhaustive, because there could be ways of being "sui generis" that are physically acceptable. We have not been shown that every way of being "sui generis" is ipso facto physicalistically unacceptable. The Master Argument is invalid.

None of this, of course, suggests that (M₂) alone is an adequate formulation of physicalism. The present point is only that (M₃) is too restrictive. And it is from (M₃) that flows the requirement for cosmic hermeneutics and the ideological vindication of physicalism. Without (M₃), those are at least open to question.⁹

4. Conclusion

My diagnosis of the problem with the Master Argument is not a free pass for physicalists. It remains an interesting and important question which metaphysical relations are physically "kosher" and which are not, how we decide, and whether the physically "kosher" ones will be enough to vindicate physicalism in general or physicalism about consciousness in particular. But it should be clear enough that we need not answer that question by consulting physics alone.

The idea that the metaphysical edifice of physicalism must be erected with only the tools of physics is commonplace these days, and has been articulated by both

⁹ I should note that there is significant flexibility in what various theorists count a conceptual knowledge. I assume that in order for conceptual facts to do their job in arguments like the Master Argument they would have to at least be a priori if not fully analytic in the classical sense.

advocates and critics of physicalism. But it is a strange idea that there could be a metaphysics-free physicalism. Why think that physics itself could be the source of not only the basic entities and properties but also the source of all ontological relations? If that were right then physicalism would be incompatible with the instantiation relation for properties, for physics does not tell us in what property instantiation consists. But plainly this line of reasoning does not render physical properties themselves physically dubious. The lesson is that metaphysical relations can be physically acceptable, even though they are sui generis from the point of view of physics itself. Once this is recognized, cosmic hermeneutics is revealed to be unreasonably ascetic. Indeed, the demands that cosmic hermeneutics puts on physicalists are reminiscent of the Tortoise's demand that Achilles make his rules of inference into premises. But that was a mistake. So too it is a mistake to think that physics alone will provide all the resources that physicalism uses. One may hold that contingent states of affairs depend on the physical without also being committed to the idea that the dependence relations will themselves depend on the physical.

5. References

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