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INFINITE DECOMPOSABILITY AND THE MIND-BODY PROBLEM

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1. Introduction

The mind-body problem is normally construed as a problem concerning the relationship between the physical and the mental. How can you move your bodily part by willing that you move it, given that moving a bodily part is a physical event while thinking that you move a bodily part is a mental event? How can you feel a pain in your bodily part when a certain neural activity takes place in a specific region of your brain, given that feeling a pain is a mental event while the neural activity is a physical event? Yet there is another construal of the mind-body problem (which could well be consistent with the first construal). According to this construal, the mind-body problem is a problem concerning the *ultimate level of reality*. As it initially appears, and as dualists maintain, are there ultimately both mental things and physical things in the actual world? Or, as physicalists say, is everything in the actual world ultimately physical? On this construal, any plausible solution to the mind-body problem would have to be an attempt to reveal the fundamental metaphysical structure of the universe rather than simply to explain the mechanism that regulates interactions between the physical and the mental.

Interestingly enough, the second construal of the mind-body problem coincides with the origin of Western philosophy. Arguably, Western philosophy started when Ancient Greek philosophers tried to find out the *arche*, the first principle of all things. Anaximenes, for example, believed that the *arche* was air. According to him, a variety of things we observe in the universe, such as water, earth, and fire, are ultimately all composed of air—they manifest distinct properties because they are variously compressed or rarefied. On the construal in question, the mind-body problem is a modern version of the problem of finding out the *arche*. Is the *arche* physical, mental, a combination of both, or something else? This article focuses on this construal of the mind-body problem and considers the hypothesis that the universe lacks any fundamental level because it is infinitely decomposable. The argument is made that such a possibility could be devastating because it seems to entail that there is no solution whatsoever to the mind-body problem. Two attempts to rescue physicalism in particular from such a possibility are discussed, and it is shown that neither succeeds. It is argued that the failures of these attempts might motivate a version of monism that is radically different from physicalism as commonly formulated.

2. Preliminaries on Fundamentalism

The notion of the ultimate level of reality is rooted in the fundamentalist view of the universe. As Jonathan Schaffer (2003, p. 498) contends, fundamentalism can be construed as a set consisting of the following three theses:

(i) The hierarchy thesis: the universe is stratified into levels.
(ii) The fundamentality thesis: there is a bottom level, which is fundamental.
(iii) The primacy thesis: entities on the fundamental level are primarily real and the rest are at best derivative, if they are real at all.

Fundamentalism identifies entities on the bottom, fundamental level as ultimate reality. Consider, for instance, physicalism as a version of fundamentalism. According to one form of physicalism, the ultimate level of reality is physical because, roughly speaking, microphysical theory describes the properties and behaviors of fundamental subatomic particles, on which everything else in the actual world supervenes. This means that entities on the fundamental level are entirely physical and, hence, everything in the actual world is ultimately physical.

Before proceeding with our discussion, some preliminaries are in order. In general, throughout this article, fundamentalism will be formulated as generally as possible. This maintains a wide scope for the discussion. In particular, first, no commitments will be made as to the terms in which fundamentalism should be formulated. As Barbara Montero (2006, p. 181) points out, fundamentalism could be formulated in many ways. For example, it could be formulated in terms of decomposition, in which case entities on the fundamental level are undecomposable proper parts (i.e., mereological atoms or simples) that constitute everything else on higher levels. To take another example, it could be formulated in terms of supervenience, in which case entities on the fundamental level are the bases on which all entities on higher levels supervene. It could also be formulated in terms of realization, explanation, reduction, determination, and so on. In what follows, the focus is on decompositions because that seems to be most intuitive. However, most of the claims that are made over the course of this article are equally applicable to other formulations. Second, no attempt is made to specify exactly what sorts of items are present on each level of reality. For instance, it is not stated whether things present on each level are substances, properties, or both. Throughout this article the term "entities" is used to remain neutral with respect to this question. Third, while existing solutions to the mind-body problem are addressed in this article, no attempt is made to provide precise definitions of the physical and the mental. The problem of defining physicalism is considered at one point but it is beyond the scope of this article to define the physical and the mental precisely. The virtue of not committing to specific definitions of the physical and the mental is that it allows us to keep the scope of our discussion as wide as possible.

3. Physicalism, Dualism, Idealism, and Neutral Monism as Versions of Fundamentalism

Fundamentalism can be illustrated as follows:

$$\ldots E_4 > E_3 > E_2 > E_1 > E_0 \,|$$

'E_4' 'E_3' 'E_2' and so on represent entities on different levels. For example, '$E_4 > E_3$' signifies that entity E_4 is on a higher level than entity E_3, which entails that E_4 is decomposed into E_3 (and other components). In other words, E_3 is a proper part of E_4. Call this kind of link of decomposable parts a 'series of decomposition' or a 'series' in short. The symbol '|' on the right side of the series represents the fundamental level. It

signifies that decomposition goes no further than that level. In the above case, E_0 occupies the fundamental level, which means that E_0 is an undecomposable mereological atom or simple. It seems reasonable to assume here that the decomposition relation is a partial order: reflexive, antisymmetric, and transitive. That is, the following (when bounded by appropriate quantifiers) are assumed: (i) x is a part of x itself; (ii) if x and y are distinct, then they cannot be parts of each other; and (iii) if x is part of y, and y is part of z, then x is part of z as well.

Let us go back to the mind-body problem. There are a number of solutions to the mind-body problem, including physicalism, dualism, idealism, and neutral monism. These four views are all construed as versions of fundamentalism. Physicalism says that despite the apparent duality, everything in the actual world is ultimately physical. The phrase "ultimately physical" is based on the ideas that all entities on the fundamental, bottom level are physical and that entities on higher levels are composites or derivatives of them. Physicalism can be illustrated as follows:

Physicalism: $\ldots P_4 > P_3 > P_2 > P_1 > P_0 \mid$

P_n represents a physical entity. According to physicalism, or at least one version of it, regardless of the number of higher levels, entities on those levels are decomposed into further entities and ultimately they reach the fundamental level containing only one kind—the physical kind—of undecomposable entities.[1]

Other monistic solutions to the mind-body problem, such as idealism and neutral monism, can be formulated in a similar manner. The only difference is that idealism regards fundamental entities as mental rather than physical, and neutral monism regards them as neither mental nor physical but as neutral. They can be illustrated as follows, respectively:

Idealism: $\ldots M_4 > M_3 > M_2 > M_1 > M_0 \mid$
Neutral monism: $\ldots N_4 > N_3 > N_2 > N_1 > N_0 \mid$

M_n represents a mental entity and N_n represents a neutral entity.

According to dualism, there are both physical and mental entities on the fundamental level and all entities on other levels are composites or derivatives of them. Substance dualism is formulated in terms of mental substances while property dualism, including epiphenomenalism, is formulated in terms of mental properties. This difference is, however, not crucial here because whether they are substances or properties, both of these versions of dualism agree that there is a fundamental level on which both physical and mental entities exist.

There are many versions of dualism, but we can construe the most straightforward one as follows: physical entities are decomposed into more basic physical entities until they reach the fundamental level. Mental entities are decomposed into more basic mental entities until they reach the fundamental level. This form of dualism can be illustrated as follows.

Dualism:
$\ldots P_4 > P_3 > P_2 > P_1 > P_0 \mid$
$\ldots M_4 > M_3 > M_2 > M_1 > M_0 \mid$

This entails that physical entities and mental entities are strictly ontologically distinct. For example, physical entities, such as cars and motorcycles, are decomposed into some physical parts, such as engines and wheels, and are ultimately decomposed into subatomic particles on the fundamental level without involving any mental entities along the way. On the other hand, mental entities, such as qualia, are decomposed into more basic mental entities, and they are ultimately decomposed into basic mental entities on the fundamental level—such entities being perhaps what David J. Chalmers (1996, 2002) calls 'protophenomenal properties' or what J. C. Eccles (1994) calls 'psychons'—without involving any physical entities along the way.

A special case of this form of dualism can be illustrated as follows:

$$\ldots P_4 > P_3 > P_2 > P_1 > P_0 \mid$$
$$\mid M \mid$$

'$\mid M \mid$' represents the fact that M is on both the top level and the bottom level. This means that, according to this version of dualism, mental entities are not decomposable at all, that is, all mental entities are basic as they are. This is a special case of the first version because what it essentially says is that the mental part of the actual world satisfies the hierarchy thesis only trivially. That is, the mental part of the actual world is 'stratified into' only one level, the fundamental level. On the other hand, the physical part of the actual world is stratified into multiple levels.

There are many other versions of dualism, some of which include both mental and physical entities in the same series of decomposition. However, the above two versions represent the most common formulations.

4. The Possibility of Infinite Decomposition

Recall the three theses that constitute fundamentalism:

(i) The hierarchy thesis: the universe is stratified into levels.
(ii) The fundamentality thesis: there is a bottom level, which is fundamental.
(iii) The primacy thesis: entities on the fundamental level are primarily real and the rest are at best derivative, if they are real at all.

Philosophers have paid particular attention to the fundamentality thesis and examined its implications. Schaffer (2003) and Montero (2006) consider the idea that physicalism is false because the fundamentality thesis is false. According to this idea, since the universe is stratified infinitely into levels that never reach the bottom level, physicalism, which is a version of fundamentalism, is false. They are right in thinking that, insofar as physicalism is formulated as a version of fundamentalism, the falsity of the fundamentality thesis entails the falsity of physicalism. However, the falsity of that thesis is much more devastating than they seem to think. If the thesis is false, then not only physicalism, but also all other traditional responses to the mind-body problem, such as dualism, idealism, and neutral monism, fail—insofar as they are formulated as versions of fundamentalism. This is because, as we have seen, despite differences among the claims they make, they all share the idea that there is a fundamental level of reality. This point can be summarized by constructing the following argument against physicalism, dualism, idealism, and neutral monism:

(1) If physicalism, dualism, idealism, or neutral monism is true, then fundamentalism is true.
(2) If fundamentalism is true, then there is a bottom, fundamental level of reality.
(3) There is no bottom, fundamental level of reality.

Therefore,

(4) Fundamentalism is false (from [2] and [3]).

Therefore,

(5) Physicalism, dualism, idealism, and neutral monism are all false ([1] and [4]).

This argument consists of premises (1), (2), and (3), intermediate conclusion (4), and conclusion (5). Premise (1) expresses the fact that physicalism, dualism, idealism, and neutral monism, at least as they are commonly formulated, are versions of fundamentalism, which we have confirmed above. Premise (2) represents the fundamentality thesis, one of the three core theses of fundamentalism. The argument is valid, so intermediate conclusion (4) follows logically from premises (2) and (3), and conclusion (5) follows logically from (1) and (4). This

means that the soundness of the argument hinges on premise (3).

In order to show that what (3) says is at least metaphysically possible, Schaffer appeals to its conceivability and logical consistency (2003, p. 501). First, he says, (3) is metaphysically possible because it is conceivable that everything has parts. It is conceivable that everything is extended and everything that is extended is decomposed into further entities. If conceivability entails possibility, then it is possible that everything has parts. Second, he says, (3) is metaphysically possible because it is logically consistent. There are consistent models of mereology that allow infinite decomposability. Given that there are such consistent models, there is no a priori ground for rejecting (3) as a metaphysical possibility. Schaffer contends, moreover, that (3) might well be actual because it is taken seriously by scientists. For example, the quantum physicist David Bohm (1957) says that his formulation of physics is "consistent with an infinity of levels." To take another example, the physicist Hans Dehmelt (1989) postulates an infinite regression of subelectron structure.

So it does appear that (3) is a genuine possibility. However, it is still inconclusive whether or not (3) is actually true—that could well be a purely empirical question. All that is claimed here is that *if* (3) is true, not only physicalism but also all other prominent responses to the mind-body problem fail. This is, again, devastating. There are some philosophers, most notably Colin McGinn (1989), who claim that we can never solve the mind-body problem because our cognitive limitations preclude us from reaching the solution. However, the implication of the above argument is much more profound than that. It implies not only that we cannot reach the solution to the mind-body problem, but that there might be no solution whatsoever to the problem. It is, therefore, important for proponents of fundamentalism to block the above argument by showing that even if (3) is true, that is, even if there is no bottom, fundamental level of reality, they need not give up their views.

The following sections focus on physicalism, the most widely accepted form of fundamentalism. They critically examine two attempts to rescue physicalism from the above argument.

5. Physicalism without the Bottom Level

Infinite decomposability entails that there is no deepest level of reality. This is a serious problem, particularly for physicalism, because physicalism relies heavily on the success of modern physical science in revealing deeper and deeper structures of the universe. In this section and the next two, prominent attempts to rescue physicalism from infinite decomposability are examined. It is argued that neither succeeds and that their failures might motivate a unique form of monism that diverges significantly from traditional physicalism.

Barbara Montero (2006) claims that physicalism should not be rejected even if the universe is infinitely decomposable. To defend her claim, she provides a formulation of physicalism that is consistent with infinite decomposability:

> P4: Physicalism is true if all mental entities are eventually determined by physical entities such that all further determinations of these entities, if any, are physical; physicalism is false if there are some entities that are eventually determined by mental entities such that all further determinations of these entities, if any, are mental.[2] (Montero 2006, p. 187)

What Montero says can be summarized as follows. Physicalism is true if every series of decomposition obtained in this world satisfies either of the following descriptions: (i) it eventually reaches the fundamental level on which there are only physical entities, or (ii) it keeps decomposing infinitely but at least after a certain point it keeps decomposing

into physical entities only. Physicalism is false if any series of decomposition obtained in this world satisfies either of the following descriptions: (a) it eventually reaches the fundamental level on which there are one or more mental entities, or (b) it keeps decomposing infinitely but after a certain point it keeps decomposing into mental entities only.

So, for example, if we obtain only the following series, physicalism is true, even though the universe is infinitely decomposable:

Series 1: . . . $P > P > P > P > P > P > P >$ . . . (keeps decomposing into physical entities)

On the other hand, if we obtain, for example, the following series, physicalism is false:

Series 2: . . . $M > M > M > M > M > M > M >$ . . . (keeps decomposing into mental entities)

There are several reasons that physicalists should not find Montero's formulation compelling. The first reason is that her formulation makes physicalism a problematic position as it entails that establishing the truth or falsity of physicalism is extremely difficult, if not impossible, in an infinitely decomposable world. In order to see this, let us divide her formulation into two parts:

P4(a): Physicalism is true if all mental entities are eventually determined by physical entities such that all further determinations of these entities, if any, are physical.

P4(b): Physicalism is false if there are some entities that are eventually determined by mental entities such that all further determinations of these entities, if any, are mental.

P4(a) makes it difficult, if not impossible, to establish the falsity of physicalism in an infinitely decomposable world. This is because whatever series of decomposition antiphysicalists find, physicalists can always leave open that all mental entities are eventually determined by physical entities. Suppose that antiphysicalists claim that physicalism is false because they have obtained a series comparable to Series 2 above. Here physicalists can respond by saying that physicalism has not been refuted because antiphysicalists have not shown that the mental entities in the series are not eventually determined by physical entities.

Similarly, P4(b) makes it difficult, if not impossible, to establish the truth of physicalism in an infinitely decomposable world. This is because whatever series of decomposition physicalists find, antiphysicalists can always leave it open that all physical entities are eventually determined by nonphysical entities. Suppose that physicalists claim that physicalism is true because they have obtained a series comparable to Series 1 above. Here antiphysicalists can respond by saying that physicalism has not been shown to be true because physicalists have not established that physical entities in the above series are not eventually determined by mental entities. These problems arise precisely because the series in question are infinite and endless. Hence, Montero's formulation makes physicalism problematic.

In order to defend physicalism from the above criticism, one might try to construct an inductive argument for infinite physical decomposition and derive from such an argument the proposition that physicalism is at least very likely true or that we are justified in believing that physicalism is true. Such an argument should not be excluded as a possibility. However, constructing such an argument is not an easy task, as it requires one to specify a reason to think that below a certain level, everything is decomposed into physical entities only. Let us consider a typical attempt to construct such an argument.

The attempt goes as follows. Suppose that everything is decomposed into subatomic particles and that these subatomic particles are infinitely decomposable into further entities. In such a case it seems reasonable to think that everything below the subatomic level is physical. It is most likely that once everything

is decomposed into subatomic particles, they keep decomposing into additional physical entities rather than into mental entities. Therefore, we are justified in believing that physicalism is true.[3]

In order to examine the legitimacy of such a response, we can reformulate P4(a) in accordance with this point:

> P4(a′): Physicalism is true if all mental entities are eventually determined by subatomic particles, whether or not determination continues infinitely below the subatomic level.

Unfortunately, there are several reasons to think that P4(a′) does not save physicalism. First, P4(a′) might not be consistent with Montero's defense of physicalism. This is because she takes seriously the possibility that any series of decomposition below subatomic—that is, quantum—levels involves mental entities when she acknowledges that "quantum mechanics is understood in terms of our minds" (p. 186). Second, more importantly and more generally, P4(a′) is problematic because its scope is so narrow that even if it is true, it fails to capture the thrust of physicalism in an informative manner. Consider a parallel but exaggerated example:

> P4(a*): Physicalism is true if all mental entities are eventually determined by rocks, whether or not determination continues infinitely below the level of rocks.

Setting aside quantum mechanics, it is most likely that physicalism is true if everything is decomposed into rocks—rocks are indeed paradigmatic physical objects. In this sense, Montero seems right in saying that physicalism is in principle compatible with the possibility of infinite decomposition. However, few physicalists think that mental entities, such as qualia, are decomposed into rocks. Similarly, going back to P4(a′), few physicalists think that mental entities are decomposed into subatomic particles. Notice that the original P4(a), despite having its own problem, does not face this problem because it is formulated in terms of physical entities simpliciter, rather than in terms of a specific subset of physical entities, such as rocks or subatomic particles.

Part of the reason that Montero's formulation is problematic is that it specifies only a sufficient, but not a necessary, condition for the truth of physicalism. What if, then, we were to amend Montero's formulation in such a way that it specifies both necessary and sufficient conditions?

> P4(a#): Physicalism is true if, and only if, all mental entities are eventually determined by physical entities such that all further determinations of these entities, if any, are physical.

Montero would not be happy with the above formulation because it eliminates a series of decomposition that alternates mental and physical entities, which Montero regards as a borderline case of physicalism (Montero 2006, p. 187). Moreover, the above formulation still does not solve the problem of rendering physicalism difficult to establish.

Of course, even if Montero's formulation makes physicalism difficult to establish, that does not mean that it makes physicalism false. The objection in question is, therefore, only epistemic. However, there is also a metaphysical objection. According to this objection, Montero's formulation is not compelling because it makes physicalism an unstable, groundless metaphysical view.

As mentioned earlier, physicalism relies on the success of modern physical science in explaining deeper and deeper levels of reality. Here an implicit assumption is that future, complete physical science will reveal the most fundamental building blocks of the universe, which are expected to be entirely physical. Such an idea is consistent with the spirit of fundamentalism as a view that secures a metaphysical basis on the bottom, fundamental level of reality. However, once physicalists allow infinite decomposability, as Montero does, the solid metaphysical

basis of physicalism is lost. Suppose that our universe is infinitely decomposable. How then can God create the universe? (Here the term "God" is being used metaphorically.) Montero and fundamentalists agree that the deeper the levels are, the more fundamental are the entities on them. This entails that parts of the universe are more fundamental than the whole universe. If there is a bottom level, God can create the universe from the most fundamental building blocks on that level. However, if, as Montero allows, there is no bottom level and entities are more and more fundamental as we go deeper and deeper in discovering their levels, then there are no such things as fundamental building blocks in the first place. God then cannot create the universe.[4] This suggests that Montero's formulation, which allows infinite decomposability, makes physicalism an unstable, groundless metaphysical view, which annihilates the existence of the universe and everything in it.

6. Physicalism with the Fundamental Top Level

As we have seen, Montero tries to rescue physicalism from infinite decomposability by showing that physicalism is consistent with the nonexistence of a fundamental, bottom level of reality. We have seen, however, that such an attempt does not succeed. How else, then, could physicalists handle the possibility of infinite decomposition? An answer to this question is hinted at, but not necessarily endorsed by, Jonathan Schaffer (2003, 2010). According to this attempt, physicalism can be saved if we seek the fundamental level not on the bottom but on the top of the hierarchical structure of the universe. That is, we can maintain physicalism if we hold that the whole universe, rather than any of its proper parts, is most fundamental.

What Shaffer calls 'priority monism' says that exactly one basic concrete object, that is, the universe, exists. Priority monism allows that there are many other concrete objects but regards them as being derivative of the universe. This view appears initially counterintuitive because in most instances, we think that a whole is not prior to its parts. We think, for example, that the grains of sand constituting a heap are prior to the heap or that tiles in a mosaic are prior to the mosaic. Schaffer points out, however, that there are many other examples in which we think that a whole is, in fact, prior to its parts. For instance, we think that a circle is prior to semicircles of the circle or that a body is prior to organs of the body (Schaffer 2007). This is because, according to Schaffer, our commonsense distinguishes between mere heaps and genuine unities. A heap of grains of sand and a mosaic are mere heaps, but a circle, a body, and the universe are, according to Schaffer, genuine unities. We can hold, Schaffer says, that the universe is prior to its parts.

Priority monism can be motivated as follows. Suppose, contrary to what priority monism says, that the fundamental level of reality is found on the bottom level of the universe. Suppose further, that some universes are infinitely decomposable but others are not. It then follows that while some universes have the fundamental level of reality, others do not. This, however, seems highly counterintuitive. If any universe has a fundamental level of reality, all universes must have a fundamental level of reality. Priority monism does not face this problem because it says that the universe itself is the most fundamental object. If priority monism is true, it does not matter what sort of compositional structure each universe has. In this way, priority monism preserves the stable fundamental metaphysical grounds of all possible universes, including infinitely decomposable ones.

Despite its strengths, however, we cannot rescue physicalism by relying on priority monism for several reasons. First, as Schaffer himself says, priority monism is a limited view because it covers only concrete objects

and excludes everything else. Schafer (2010) writes:

> I assume that there is a maximal actual concrete object—*the cosmos*—of which all actual concrete objects are parts. I should emphasize that I am only concerned with actual concrete objects. *Possibilia*, *abstracta*, and actual concreta in categories other than *object* are not my concern (deities and spirits, if such there be, are not my concern either). When I speak of the world—and defend the monistic thesis that the whole is prior to its parts—I am speaking of the material cosmos and its planets, pebbles, particles, and other proper parts. (p. 33)

Schaffer is justified in setting aside nonconcrete entities in his context. However, we are not allowed to do that in the context of the mind-body problem. Defining concrete and abstract objects is a matter of controversy. Yet if we regard concrete objects as spatiotemporal objects, at least some mental entities, such as phenomenal properties, are excluded from the scope of priority monism. This means that priority monism cannot be a solution to the problem in question. What if, then, we widen the scope of priority monism so that it subsumes all objects, including mental entities? Unfortunately, this does not seem to be an option for us, because once we widen the scope in this way, priority monism loses its initial plausibility. Schaffer claims that it is reasonable to talk about the universe as a whole and regard it as fundamental because "the existence of the cosmos has both intuitive and empirical support" (2010, p. 34). First, intuitively, natural language provides a singular term for the whole ("the cosmos"). Second, empirically, the cosmos is a subject matter of empirical study such as physical cosmology. If we include mental entities in the scope of priority monism, however, we lose the intuitive and empirical support. Arguably, we do not have the intuition that the cosmos includes mental entities, and we know that physical cosmology does not concern mental entities. Priority monism says that the whole is most fundamental, but it is unclear if we can maintain the whole if we try to add mental entities to it.

Second, even if we set aside the first problem, priority monism cannot be adopted to rescue physicalism, or in fact any solution to the mind-body problem. Recall physicalism construed as a version of fundamentalism relying on the bottom level of reality. According to this view, the universe is of the physical kind, because all entities on the bottom level are entirely physical and entities on higher levels are all derivative of them. That is, this view ascribes physicality to the universe by looking at the kind—e.g., physical, mental, etc.—of its fundamental components. Priority monism turns this picture upside down. It says that the universe as a whole is more fundamental than its parts. This means that priority monism cannot determine the kind of the universe by looking at the kind of its components. For example, given priority monism, we cannot say that physicalism is true because all components of the universe are of the physical kind. Priority monism has to hold that that is exactly the wrong way of deciding the kind of reality, because components of the universe are derivative of the whole. Therefore, even if priority monism succeeds in showing that monism can be true without there being a fundamental level, it does not succeed in rescuing physicalism (or any other alternative responses) to the mind-body problem.

7. Conclusion: Toward Nonphysicalist Monism

This article has argued that attempts to rescue physicalism from infinite decomposability, which were offered by Montero and hinted at by Schaffer, do not succeed. Our discussion can be concluded by summarizing briefly what we have seen and speculating about what sort of metaphysical view we might be able to hold if the universe is indeed infinitely decomposable.

The failure of Montero's response teaches us that if we allow infinite decomposability but still hold that entities are more and more fundamental as we go deeper and deeper through the hierarchy of their levels, then physicalism (and any alternative to it) turns out to be a problematic and unstable metaphysical view. This leads us to priority monism because it motivates us to seek fundamentality on the top, rather than on the bottom, level of reality. The main difference between priority monism and traditional fundamentalism is that priority monism regards the whole universe, rather than its ultimate components, as most fundamental. The location of the fundamental level at the top enables priority monism to secure a firm metaphysical ground. We have seen, however, that priority monism, as Schaffer formulates it, is not sufficiently comprehensive in our context because it concerns only concrete objects and sets aside everything else. If we are to retain this firm metaphysical foundation and allow infinite decomposability in our context, therefore, we will need to expand the focus of priority monism so that it includes mental entities as well. By doing this, however, we lose the intuitive and empirical arguments for construing the universe as one entity. Hence, we need an additional argument for the claim that the totality of everything, including physical and mental entities, is a single entity. We also need to recognize that such a view cannot be a version of fundamentalism, such as physicalism, dualism, idealism, or neutral monism, because unlike traditional fundamentalism, it cannot define the kind of the whole by appealing to the kind of its components—the totality, rather than its components, determines its own kind.

If we ever succeed in showing that the totality of everything, including what we call physical entities and mental entities, is one entity, we will reach a rather unusual metaphysical view. According to this view, the totality of everything is the most fundamental entity, of which all of its components are derivative. Although this view secures a firm metaphysical ground, it does not answer, or even attempt to answer, the mind-body problem. It is a version of monism in the sense that it says that there is exactly one most fundamental entity, but it is neither monism nor dualism in the context of the mind-body problem. Perhaps such a view has an affinity with monism in the Eastern tradition, which regards the totality as an organic whole in which numerous entities are entangled.

If we take this speculative view seriously, we might conclude that, after all, the mind-body problem is misguided. Analysts of the mind-body problem focus on mental entities, especially phenomenal properties, and try to locate their place in nature. Some purport to show that since they are ultimately physical, we can place them in the physical domain. Some others purport to show that since they are ultimately mental, i.e., nonphysical, we need to give them a special place. However, no matter which approach we choose, we face an intractable problem. We seem to have arrived at the view that any such attempt is futile because the whole reality is more fundamental than any of these individual mental and physical entities that appear to constitute it are.

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NOTES

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1. Physicalism is the view that everything is ultimately physical, so it is not (or at least many versions of it are not) committed to the claim that the mental is physical. Hence, for example, a series of decomposition/supervenience that includes mental entities on higher levels does not necessarily contradict physicalism.

2. Here, Montero's formulation is modified slightly so that it is consistent with the terminology used throughout this article. In particular, Montero's term 'nonmental' is replaced with 'physical' and 'properties' with 'entities.'

3. Thanks to Philip Goff and an anonymous referee on this point.

4. One might respond that God could create a chunk, such as a rock or even the whole universe, that is infinitely decomposable, rather than constructing a chunk from its fundamental building blocks. As we see below, this idea leads us to a version of priority monism. Thanks to an anonymous referee on this point.

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