

There Could Be a Light that Never Goes Out: The Metaphysical Possibility of Disembodied Existence

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Abstract

According to many philosophers, even if it is metaphysically possible that I exist without my present body or without my present brain, it is not metaphysically possible that I exist without any physical support. Thus, it is not metaphysically possible that I exist in some afterlife world, where I do not have any physical support. I shall argue against such a thesis by distinguishing two different notions of physical and by examining two strategies used by those who defend the thesis. No strategy will turn out to be conclusive. Thus, it seems that nothing excludes the metaphysical possibility of disembodied existence. Moreover, I shall illustrate two ways (respectively based on modal realism and on modal actualism) in which one might conclude that my disembodied existence is something more than a mere possibility.

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Most versions of non-reductive physicalism (the contemporary received view in ontology of mind) seemingly imply the following: even if it is metaphysically possible that I exist without my present body or without my present brain, it is *not* metaphysically possible that I exist without any physical support at all. Namely, it is not metaphysically possible that I have disembodied existence.

Consider the metaphysical possibility of our friend Anthony's disembodied existence. We can interpret this suggestion as follows:

(no-dis.) it is not metaphysically possible that Anthony exists and that there is no object such that that object is a physical object and it stands in the relation of *embodying* with Anthony (i.e., it is Anthony's physical support).

Is (no-dis.) true? How can one justify its truth? The truth or falsity of (no-dis.) is relevant in many metaphysical and theological debates. For example, if (no-dis.) is true, then there is no room for Anthony's afterlife existence in some non-

physical world (e.g., some non-physical Heaven).¹ In this article, I shall question the truth of (no-dis.). More precisely, I shall argue against two strategies to justify (no-dis.).

In section 1, I shall distinguish between two different ways of interpreting physically possible worlds, as well as the concept of the physical itself. I shall also provide different ways of justifying (no-dis.) and I shall introduce two strategies to argue for it. In section 2, I shall put in question the first strategy and, in section 3, I shall put in question the second strategy. Finally, in section 4, I shall suggest how Anthony's disembodied existence in some afterlife world could be more than a mere possibility.

1. Physical Possible Worlds and the Physical

In this section, I shall distinguish between two different ways of interpreting physically possible worlds (i.e., physically-1 and physically-2 possible worlds) and between two different ways of considering the physical (i.e., physical-a and physical-b). Afterwards, I shall consider two strategies to argue for (no-dis.). This will ground the subsequent distinction between eight different ways of justifying (no-dis.).

At first, using possible worlds in order to interpret (no-dis.), it is legitimate to distinguish between three different kinds of possible worlds: metaphysically possible worlds, physically-1 possible worlds and physically-2 possible worlds.² As a working definition of possible worlds, I claim that *possible worlds* are maximal and consistent states of affairs: for every possible state of affairs, each possible world is such that it either includes that state of affairs or it precludes it and it is not the case that it both includes and precludes it.³ Of course, other definitions of possible worlds will be acceptable for our discussion: ways the world might be, maximal and consistent sets of propositions, and so on.

The actual world is the possible world in which we live or—if we accept modal actualism (i.e., the view that there is only one absolutely actual possible world)—it is the only *obtaining* possible world (at least if possible worlds are maximal and consistent states of affairs).

¹ Many so-called Christian materialists, such as van Inwagen (1995), Corcoran (2001) and Merricks (2007), would accept (no-dis.) even though, according to them, the resurrection of his body will guarantee Anthony's eternal life. However, given that Anthony's resurrected body will somehow be qualitatively different from an actual physical body (and the physical laws of the *post-resurrectionem* world will seemingly be different from the laws of our world), they could accept a relatively weaker version of (no-dis.) that I shall introduce in a few pages. Following it, roughly, Anthony's disembodied existence relative to physical-b or actual physical-a supports (see below for this distinction) is metaphysically possible. See also Rudder Baker (2011).

² Concerning the philosophical reflection on different definitions of the physical and of physicalism, see, for example, Crane and Mellor 1990, Melnyk 1997, Ney 2008, Stoljar 2010.

³ This is roughly the definition of possible worlds introduced by Plantinga (1974: 44-45). A state of affairs *S* includes another state of affairs *S'* if it is not possible that *S* obtains and *S'* fails to obtain. On the contrary, *S* precludes *S'* if it is not possible that both *S* and *S'* obtain. It is clear from these definitions that, within Plantinga's theory, possible worlds do *not* ground the possibility of something.

Physically-1 possible worlds are those worlds that share the same (fundamental) physical laws⁴ of the actual world. On the other hand, *physically-2 possible worlds* are those worlds that are governed by (fundamental) physical laws. Physically-1 possible worlds constitute a proper subset of physically-2 possible worlds. A physically-1 possible world having the same (fundamental) physical laws of the actual world is also a physically-2 possible world—since it is governed by (fundamental) physical laws. Yet, it could be the case that not all the possible worlds that are governed by (fundamental) physical laws are governed by all and the same (fundamental) physical laws of the actual world. Other possible worlds could be governed by different (fundamental) physical laws. Thus, not all the physically-2 possible worlds are also physically-1 possible worlds.

Finally, I assume that *metaphysically possible worlds* are those possible worlds in which no (openly or covertly) contradictory proposition is true. An open contradiction is one of the form: something is P and non-P (e.g., water is not water). Not all the contradictions are open. For example, if Putnam (1973) is right, the proposition [water is not H₂O]⁵ is covertly contradictory: given the chemical nature of water, it is necessary that water is H₂O and it is impossible that water is not H₂O. Yet, there is no open contradiction in asserting that water is not H₂O—while it would be openly contradictory to assert that water is not water. Thus, there is no metaphysically possible world in which the proposition [water is not H₂O] is true, since that proposition is covertly contradictory—even if it is not openly contradictory.

This somehow unorthodox definition of metaphysical possibility is motivated as follows. The metaphysically possible states of affairs involving an entity are all and only those states of affairs whose obtaining would *not* be in contrast with the nature of that entity. Whatever is compatible with the nature of a certain entity is metaphysically possible for that entity. On the contrary, whatever is *not* compatible with the nature of a certain entity is either expressed by openly contradictory propositions (such as [water is not water]) or by covertly contradictory ones (such as [water is not H₂O]—at least if being H₂O is part of the nature of water). It is (openly or covertly) contradictory to attribute to a certain entity some feature that is incompatible with the nature of that entity or to deny the attribution of some feature that is part of its nature.

Let me now turn back to Anthony. To argue that there is no metaphysically possible world in which Anthony exists without any physical support, there are two main strategies. It is either possible to show that (1) every metaphysically possible world is a physically-2 possible world, or that (2), even if there is at least one metaphysically possible world that is *not* a physically-2 possible world, Anthony does not exist (and he cannot exist) in that world, since he has no

⁴ Fundamental physical laws are all and only those laws that govern the behaviour of the fundamental physical entities of a world. By a 'physical law', I mean here a law that can be (in principle) studied by physics. It is also worth pointing out that I remain neutral on whether such laws are fundamental entities or not. Namely, physical laws could either be fundamental entities, or they could emerge from something else, e.g., from the behaviour or the features of the fundamental physical particles. Finally, I assume that the only physical laws of a world are the ones that govern something in the world. Namely, I deny that a possible world *w* can include some physical law of another world *w'* which does not govern anything in *w*.

⁵ I use here square brackets in order to distinguish propositions from statements.

identity conditions there. These strategies also involve physically-1 possible worlds (i.e., worlds governed by the same fundamental physical laws of the actual world), insofar as the latter constitute a proper subset of physically-2 possible worlds (i.e., worlds governed by fundamental physical laws).

Dealing with (1), it is worth asking what is meant by ‘physically-2’. At least from the perspective of non-reductive physicalism, one could claim that a physically-2 possible world is a possible world in which every object is physical-a. An object is *physical-a* iff it is part of the ontology of the fundamental physical theory of that world or it is completely constituted (or it bears some other relation, such as the one of *depending on*) by objects that are part of the ontology of the fundamental physical theory of that world. Within a possible world, physics is the science concerned with all and only the relatively fundamental constituents⁶ of that world, with their properties and laws. The best fundamental physical theory of a possible world is the theory that provides the best representation—at least in principle—of what is studied by physics in that world. It is also the theory from which one can ideally deduce all the features (e.g., laws) of what is studied by physics in that world, even those features that are not explicitly included in the theory—in this sense, it is fundamental. By talking of the ‘fundamental physical theory’ of a world, I obviously assume that that theory is true and complete.⁷

Alternatively, one could state that a physically-2 possible world is a possible world in which every object is physical-b and it is a *physical-b* object iff it has some paradigmatic feature(s) F traditionally attributed to all and only material objects (e.g., it has a spatio-temporal or a temporal location, it is impenetrable, etc.).⁸

⁶ I use ‘relatively fundamental constituents’ for two reasons. First, I wish to distinguish the constituents of the world studied by physics from the less fundamental constituents studied by other, so-called ‘special sciences’ (e.g., chemistry and biology). Secondly, I also wish to include in the entities studied by physics both the absolutely fundamental constituents of the world (if the world has this sort of constituents, e.g., quarks) and the entities that are composed of them and that are studied by no special science (e.g., atoms). Note also that by ‘constituents’ I mean the components of complex entities—not just what is relatively fundamental and is part of a world.

⁷ I also wish to point out that physical-a objects necessarily come together with some (fundamental) physical law or another, i.e., that there cannot be physical-a objects without (fundamental) physical laws. For physical-a objects are the ones that are invoked within fundamental physical theories (or entirely depend on objects invoked within fundamental physical theories) and I cannot think of a fundamental physical theory that is not (also or only) concerned with (fundamental) physical laws. Otherwise, what would such a theory be about? Therefore, I cannot think of a physical-a object that does not come together with some (fundamental) physical law or another.

⁸ The distinction between a theory-based and a (material) feature-based conception of the physical is justified within many current taxonomies of the formulations of physicalism, i.e., of the theory according to which everything is physical—or at least depends on the physical. Within certain formulations, in order to grasp the meaning of ‘physical’, we must only pay attention to what physical theories claim about their objects of inquiry. Following other formulations, we must impose *a priori* restrictions on what counts as physical—roughly in line with the features traditionally attributed by materialists to all and only material objects. See also Ney 2008 and Stoljar 2015. It goes without saying that both physical-a and physical-b objects can be studied by physics and be governed by physical laws.

Following the first interpretation of the physical with respect to the first strategy, it turns out that

- (1a) there is no metaphysically possible world in which there is at least one object that is not part of the ontology of the best fundamental physical theory of that world or that is not completely constituted by (or does not depend on) objects that are part of the ontology of the best fundamental physical theory of that world.

Following the second interpretation, it turns out that

- (1b) there is no metaphysically possible world in which there is at least one object that does not have F or that is not completely constituted by (or depends on) objects that have F.

Consider now strategy (2), i.e., the idea that, even if there is at least one metaphysically possible world that is *not* a physically-2 possible world, Anthony does not exist (and he cannot exist) in that world, since he has no identity conditions there. Using (2), there is at least one metaphysically possible world that is not a physically-2 possible world, but Anthony does not exist in that world. In fact, given that Anthony exists in the actual world (i.e., a physically-1 and a physically-2 possible world), he is identity-dependent on (or identical with) some physical object.⁹

However, if we choose the first interpretation of ‘physical’ (i.e., physical-a),

- (2aa) Anthony is identity-dependent on (or identical with) some object(s) that is/are part of the ontology of the best fundamental physical theory *of the actual world* (and of every physically-1 possible world) or some object(s) completely constituted by objects that are part of the ontology of the best fundamental physical theory *of the actual world* (and of every physically-1 possible world), so that he has no identity conditions in (metaphysically and physically-2) possible worlds in which that physical object (or those physical objects) does (do) not exist.

Furthermore, there are two other plausible readings of (2) based on this interpretation:

- (2ab) Anthony is identity-dependent on (or identical with) some object(s) that is/are part of the ontology of the best fundamental physical theory *of some physically-2 possible world* or some object(s) completely constituted by objects that are part of the ontology of the best fundamental physical theory *of some physically-2 possible world*, so that he has no identity conditions in (metaphysically and non-physically-2) possible worlds in which that physical object (or those physical objects) does (do) not exist;
- (2ac) no object that exists in some (metaphysically and non-physically-2) possible world and that is not physical (according to the physical-a interpretation of ‘physical’) grounds Anthony’s identity conditions.

On the other hand, if we choose the second interpretation of ‘physical’ (i.e., physical-b), it turns out that

⁹ I use identity-dependence here as the strongest form of ontological dependence, aiming at justifying the idea that it is not metaphysically possible for Anthony to exist without some physical object.

- (2ba) Anthony is identity-dependent on (or identical with) some object(s) that exists *in the actual world* and that has (have) F, so that Anthony has no identity conditions in (metaphysically and physically-2) possible worlds in which that physical object (or those physical objects) does (do) not exist.

Furthermore, it is possible to give two further readings of (2):

- (2bb) Anthony is identity-dependent on (or identical with) some object(s) that has (have) F and that exists *in some physically-2 possible world*, so that Anthony has no identity conditions in (metaphysically and non-physically-2) possible worlds in which there exist(s) no object(s) that has (have) F;
- (2bc) no object that exists in some (metaphysically and non-physically-2) possible world and that is not physical (according to the physical-b interpretation of 'physical') grounds Anthony's identity conditions.

We are now left with eight possible ways of justifying (no-dis.). Before dealing with each way, it is worth remarking that the metaphysical possibility of Anthony's disembodied existence does *not* entail that Anthony can exist without his body (or without any other physical support) *in the actual world*. One could reasonably deny the truth of (no-dis.) and nevertheless accept that Anthony must be embodied in the actual world. Thus, the falsity of (no-dis.) does *not* imply the acceptance of any form of Cartesian Dualism, nor of any doctrine according to which selves and bodies live (or can live) apart from one another in the actual world too. However, as we shall notice at the end of this article, there are at least two ways to make it the case that Anthony's disembodied existence is not a mere possibility, i.e., something unreal and/or non-actual, even if possible.

2. The First Strategy

In this section, I shall argue against the first strategy, i.e., the one aiming at showing that every metaphysically possible world is a physically-2 possible world.

Consider the solutions based on this strategy:

- (1a) there is no metaphysically possible world in which there is at least one object that is not part of the ontology of the best fundamental physical theory of that world or that is not completely constituted by (or does not depend on) objects that are part of the ontology of the best fundamental physical theory of that world;
- (1b) there is no metaphysically possible world in which there is at least one object that does not have F or that is not completely constituted by (or depends on) objects that have F.

Both solutions do *not* seem to imply the truth of (no-dis.). Remember that (no-dis.) requires that there be an object embodying Anthony. (1a) is compatible with that object's being rather dissimilar from what typically counts as a body—or what counts as a body in the actual world. That object (i.e., Anthony's support) could have strange and exotic features in other worlds.

With regard to (1a), nothing excludes that there is a metaphysically possible world which has its own physical laws (maybe very strange laws), in which Anthony exists even without having an actual world's body or something

qualitatively similar to it. More precisely, nothing excludes that there is a metaphysically possible world in which Anthony has a physical-a support, even without having a physical-b support (some physical support that has some features traditionally associated with the features of bodies) or a physical-a support based on the physical laws of the actual world. The laws of that metaphysically possible world would still be physical laws, i.e., laws studied by the physics of that world, given my characterization of physics as the science concerned with the relatively fundamental constituents of a world, their properties and laws.

For example: in line with the physical laws of that world, increase of entropy might *not* characterize Anthony's physical-a support in that world whereas, in line with the physical laws of the actual world, increase of entropy obviously characterizes Anthony's actual physical-a support.

In addition, in some other world, at least some physical-a objects (including Anthony's support) might *not* be physical-b objects. For example: if physical-b objects are the ones that are impenetrable, at least some physical-a objects in that world (including Anthony's support) might nevertheless be penetrable.

I do not see any sound reason for denying such possibilities, thus making it the case that the actual physical laws are metaphysically necessary and/or that, as a matter of metaphysical necessity, every possible physical-a entity is also a physical-b entity. It is up to the opponents to argue for such necessities, which are far from being self-evident.¹⁰

If (1a) were true, Anthony would not have an absolutely disembodied existence. He would still have physical-a supports in other worlds. Yet, he would have disembodied existence relative to the definitions of bodies that are grounded on the notion of physical-b object or on the notion of physical-a object in the actual world.¹¹

On the other hand, (1b) is hardly defensible. Nothing seemingly excludes that there are metaphysically possible worlds in which not every object has some feature F (e.g., impenetrability) and/or not every object is completely constituted by (or depends on) some F-object(s). If the opposite were true, then all the objects would necessarily be F-objects. All the objects would necessarily be impenetrable, or spatio-temporally, or temporally located. Being F would be included in the nature of objects, i.e., it would somehow be part of or follow from being an object. Again: I do not see how to justify such a move. It must be

¹⁰ It might be objected that, if in the other world the physical laws emerge from the behaviour and the features of objects, then Anthony would not have the physical-a support that he has in the actual world, nor any other support qualitatively analogous to it. For the behaviour and the features of physical-a objects in the other world would be too dissimilar from the behaviour and the features of actual physical-a objects, in order for the former to give rise to strange and exotic laws of nature. I concede this point, but I do not see how it can affect my argument. Indeed, (1a) only implies that Anthony has some physical-a support *in the other world*. It does *not* imply that he possesses the same support that he has in the actual world or something qualitatively analogous to the latter.

¹¹ This *prima facie* amounts to accepting (no-dis.), insofar as (no-dis.) invokes physical supports in general—as it does—rather than actual physical-a or physical-b supports. Yet, accepting strange and exotic physical supports does *not* seem to be in line with the physicalist's traditional *desiderata*. For the acceptance of strange and exotic physical supports allows for Anthony's existence with strange bodies or with somehow immortal supports.

demonstrated that, in order for something to be an object (e.g., in order for it to instantiate properties without being instantiated by them), it must have F. Metaphysical reflection does not help here: there are no cogent arguments for this conclusion. Nor can one appeal to *a posteriori* necessities, such as the ones discovered by sciences (e.g., that water is H₂O). Unlike being water, being an object is not a concept to be defined on scientific grounds.¹² Thus, scientific research cannot discover if being F is entailed by being an object.¹³

3. The Second Strategy

Let me now examine the second strategy, i.e., the one aiming at showing what follows: even if there is at least one metaphysically possible world that is *not* a physically-2 possible world, Anthony does not exist (and he cannot exist) in that world, since he has no identity conditions there. I shall now consider the ways of justifying (no-dis.) that are based on this strategy.

I shall first examine the issue of identity-dependence and I shall set aside Anthony's identity with physical-a or physical-b objects. Moreover, I shall focus on identity-dependence for one reason: it is the strongest form of ontological dependence, so that it adequately justifies the idea that it is not metaphysically possible for Anthony to exist without some physical object. However, I shall also consider in a few pages one different view of this topic.

Take

- (2aa) Anthony is identity-dependent on (or identical with) some object(s) that is/are part of the ontology of the best fundamental physical theory *of the actual world* (and of every physically-1 possible world) or some object(s) completely constituted by objects that are part of the ontology of the best fundamental physical theory *of the actual world* (and of every physically-1 possible world), so that he has no identity conditions in (metaphysically and physically-2) possible worlds in which that physical object (or those physical objects) does (do) not exist.

It seems to me that those who deny (no-dis.) could invoke criteria of identity for Anthony that are *not* grounded on physical-a actual objects. For example: consider an object *a* having all and only Anthony's memories. The object *a* identity-depends on Anthony's memories and memories as such (for what we know) are *not* physical-a actual objects. Is Anthony identical with *a*? I

¹² Of course, scientists can discover that all the objects studied by them have certain relevant material features. Yet, they need a preliminary (and at least intuitive) understanding of what is for something to be an object in order to pursue this project. An understanding that precedes their research. Moreover, they cannot demonstrate that all the objects *simpliciter* (besides the ones studied by them) have those relevant features. Thus, they cannot demonstrate that having those features is necessary for being an object.

¹³ I do not rule out that, if Anthony's physical-a support in the actual world is F, then that support necessarily is F. Namely, I do *not* claim here that what is (for example) impenetrable in one world can be penetrable in another world. What I do rule out here is that all the objects in all the metaphysically possible worlds are F—or completely constituted by (or dependent on) F-objects. Therefore, it is possible that Anthony has in some other metaphysically possible world some support that is not F and that is not completely constituted by (nor dependent on) F-objects.

am *not* inclined to claim that *a* is identical with Anthony.¹⁴ Yet, the identity between Anthony and *a* is no less plausible than the identity between Anthony and some other object *b* that is part of the ontology of the best fundamental physical theory *of the actual world* or completely constituted by objects that are part of the ontology of the best fundamental physical theory *of the actual world* (or no less plausible than Anthony's identity-dependence on *b*). Thus, criteria of identity for Anthony grounded on physical-a actual objects are far from being compelling—at least if one considers the possibility of reidentifying Anthony across different metaphysically possible worlds.

The dialectic is as follows: those who affirm (2aa) must accept that there is a clear-cut answer to the question of whether Anthony is identical with *b*. Their answer is that Anthony is identical with *b* (i.e., some object that is part of the ontology of the best fundamental physical theory *of the actual world* or completely constituted by objects that are part of the ontology of the best fundamental physical theory *of the actual world*)—even if and when there is some further object *a* that has all and only Anthony's memories. I reply that this is far from being self-evident. Therefore, (2aa) is far from being compelling.

Here are some interesting examples to be assessed. If *a* existed in a metaphysically possible world with different physical laws from the ones that govern the actual world, would *a* be identical with Anthony or not? There is no clear-cut negative answer to this question. Yet, following (2aa), there should be a clear-cut negative answer: *b* does not exist in that world, nor do relevantly similar physical-a (and physical-1)¹⁵ objects exist there.

Let me consider another example: if *b* did not exist in some physically-1 possible world (i.e., some metaphysically and physically-2 possible world having the same physical laws of the actual world) and if *a* existed there with a different physical-a (and physical-1) support, would *a* be identical with Anthony or not? Again: there is no clear-cut negative answer. Yet, a clear-cut negative answer would be required for the truth of (2aa): Anthony should not exist there.

Furthermore, if *b* existed in some other physically-1 possible world and the object supported by *b* (or identical with *b*) had different memories from the ones had by Anthony, would *b* be identical with Anthony or not? Again: there is no clear-cut negative answer.

Finally, consider a metaphysically (and physically-1) possible world where *a* exists with another physical-a (and physical-1) support and *b* exists supporting (or being identical with) an object having different memories. Is Anthony identical with *a* or *b*? No clear-cut negative answer. Moreover, if Anthony is

¹⁴ Memories are mostly invoked with respect to conscious objects' *persistence* conditions or *reidentification* conditions across possible worlds—rather than with respect to their *existence/identity* conditions. However, I assume here that, in order for something to ground the persistence or the reidentification of a conscious object across possible worlds, that thing must ground its identity and existence too. An object persists at a certain time only if it *still* exists at that time: what grounds its persistence also grounds its existence at that time—and the fact that there is still something identical with that object at that time. Moreover, an object can be reidentified in a possible world only if it exists *in that world*: what grounds its reidentification conditions across possible worlds also grounds its existence in those worlds—and the fact that there is something identical with that object in that world.

¹⁵ Remember that a physical-1 object is an object governed by the fundamental physical laws of the actual world.

different from both *a* and *b*, then (2aa) is still in trouble. Indeed, (2aa) implies that, in that world, Anthony is identical with *b* or he is identical with the object supported by *b*.

The idea behind my criticism is that there are criteria of identity for conscious objects (i.e., objects having thoughts and memories) that are *not* based on physical-a objects. *Prima facie*, such criteria do not fare worse than the criteria based on actual physical-a objects. Thus, (2aa) is highly suspicious, insofar as it requires that the latter criteria fare better than the former. Of course, one might go on asserting the truth of (2aa) while denying our evaluations of the aforementioned examples. Yet, s/he should provide some strong reason for such a move—independently of her/his acceptance of the truth of (2aa).¹⁶

One might weaken (2aa) by asserting that

- (2ab) Anthony is identity-dependent on (or identical with) some object(s) that is part of the ontology of the best fundamental physical theory of *some physically-2 possible world* or some object(s) completely constituted by objects that are part of the ontology of the best fundamental physical theory of *some physically-2 possible world*, so that he has no identity conditions in (metaphysically and non-physically-2) possible worlds in which that physical object (or those physical objects) does (do) not exist.

So far, so good. Yet, *what* physically-2 possible worlds? Or: *what kinds* of physically-2 possible worlds? (2ab) is far from being clear. For example, (2ab) is compatible with Anthony's being identity-dependent on some actual physical-a object *c* that could also live in some worlds where fundamental physical laws are radically different. In that world, the object *c* might turn out to become a somehow immortal composite object, given certain relevant differences in the laws (e.g., given the absence of entropy increase).¹⁷

What about

- (2ac) no object that exists in some (metaphysically and non-physically-2) possible world and that is not physical (according to the physical-a interpretation of 'physical') grounds Anthony's identity conditions?

Take Anthony's memories again. It is at least metaphysically possible that his memories live without any physical-a support at all. Thus, would our object *a* (having all and only Anthony's memories and identity-dependence on those memories) be identical with Anthony in some metaphysical and non-physically-2 possible world where *a* exists? Given (2ac), there should be a clear-cut negative answer to this question and it should be negative. Yet, it is far from being self-evident (or at least it is metaphysically controversial) that we should accept such a negative answer.

Solutions such as

- (2ba) Anthony is identity-dependent on (or identical with) some object(s) that exists *in the actual world* and that has (have) F, so that Anthony has no identity conditions in (metaphysically and physically-2)

¹⁶ For a critical overview of theories of personal identity, see, for example, Olson 2007. For criteria of personal identity and survival, see Zimmerman 2012.

¹⁷ For example, in a *post-resurrectionem* world, *c* could be Anthony's actual and resurrected body, which could become capable of enjoying immortal life—given the radically different laws and conditions of that *post-resurrectionem* world.

possible worlds in which that physical object (or those physical objects) does (do) not exist,

are too restrictive, at least in light of our previous discussion of criteria of identity for conscious objects. Perhaps, there is a metaphysically possible world in which nothing has F and in which Anthony exists: how can we exclude such a possibility—and why should we exclude it?

This seems to rule out the two remaining solutions, i.e.,

- (2bb) Anthony is identity-dependent on (or identical with) some object(s) that has (have) F and that exists *in some physically-2 possible world*, so that Anthony has no identity conditions in (metaphysically and non-physically-2) possible worlds in which there exist(s) no object(s) that has (have) F,

and

- (2bc) no object that exists in some (metaphysically and non-physically-2) possible world and that is not physical (according to the physical-b interpretation of ‘physical’) grounds Anthony’s identity conditions.

Yet, it is now worth adding a *caveat*: such criticisms do *not* hold for those who accept the identity between Anthony and some actual physical-a or physical-b object(s)—given the necessity of identity. If Anthony is identical with some actual physical-a or some physical-b object(s), then Anthony is embodied in all the possible worlds in which he exists. However, our previous criticisms of criteria of identity based on actual physical-a/b objects and the thesis that not every metaphysically possible world is also a physically-1 possible world seem to put such identity claims in a bad light. Moreover, an actual physical-a object identical with Anthony could also exist in worlds with radically different laws—allowing for its immortal existence (as it would happen with object *c* if it were identical with Anthony).

Here is another, interesting move. Maybe Anthony does not identity-depend on his physical support—nor is he identical with it. Yet, Anthony cannot exist without his physical support—or without something qualitatively similar to it. For example: Anthony may be such as not to be able to exist without having an impenetrable (i.e., physical-b) support. For it is part of what Anthony essentially is that Anthony needs that sort of support in order to exercise the powers he essentially has. Without an impenetrable body, Anthony cannot move—and being able to move is one of the powers Anthony essentially has (Anthony could not exist without being able to move). Or Anthony may be analogous to a piece of software. A piece of software cannot exist without a physical support—without a piece of “hardware”, so to say. Thus, again, Anthony cannot exist without a physical support.

There are three different ways to rebut this argument. First, one could insist that Anthony’s essence must be characterized in a different way. For example: it is not part of Anthony’s essence that he is able to move, so that he does not need a physical-b support in order to exist. Secondly, one could deny the relevant sort of dependence on physical supports. For example: she could deny that being able to move implies depending on some physical-b support. Thirdly and finally, she could claim that the relevant sort of dependence can also involve exotic and non-actual physical-a objects, such as an immortal body. What matters here is that we are not forced to accept our opponent’s conclusion, i.e., that Anthony cannot exist disembodied.

In sum, it seems to me that, if we accept the solutions grounded on the physical-a conception of the physical, then nothing seems to guarantee the truth of (no-dis.) or the truth of (no-dis.) relative to physical-b or to *actual* physical-a supports. On the other hand, if we accept the solutions grounded on the physical-b conceptions of the physical, they seem to impose unjustified restrictions on metaphysical possibility.

4. The Afterlife World

The aforementioned conclusion might nevertheless seem too weak—at least from the perspective of those who believe in disembodied existence in some afterlife world. In fact, if the afterlife world is real, it should be part of the actual world (it should be a region of the actual world). Yet, if the actual world is such that Anthony must have a physical support, Anthony cannot actually go on existing in the afterlife world. Roughly, Anthony's having no physical support and his having no *actual* physical support in other possible worlds are nothing but mere possibilities that cannot affect the way in which things (actually) go.

I see at least two ways in which the previous discussion can constitute the basis for a more general defense of the thesis that Anthony's disembodied existence is something more than a mere possibility. Such a defense should be set up at different stages. First, one needs to show that (no-dis.) is false. Secondly, she needs to show that, in addition, Anthony's disembodied existence is something more than a mere possibility. Thirdly, she should cope with some additional problems: what actually makes it the case that Anthony has disembodied existence in the afterlife world? Must there be any correspondence between the time at which Anthony ceases to exist in our world and the time at which he “starts” to exist (or he somehow appears) in the afterlife world?¹⁸ As I have already declared, I shall briefly perform the second task—even if my hypotheses should be supplemented with additional arguments, as I shall notice.

First, one could just reject the idea that the actual world is the only real world. Accepting some, but not all the theses characterizing D. K. Lewis (1986)'s modal realism, it can be argued that both the actual world and the afterlife world in which Anthony has disembodied existence (or no actual physical-a support) are equally real and that each world is actual at itself. What happens after Anthony's death is just his “moving to” the afterlife world. I know that this hypothesis is at odds with other features of Lewis' modal realism: the idea that individuals are world-bound, so that they cannot literally exist in more than one possible world (at best, they can have counterparts in other worlds); the thesis that there can be no connection between different possible worlds, given their spatio-temporal isolation; the materialist framework within which Lewis develops his own theory (possible worlds have a wholly material nature).

¹⁸ Of course, if the actual world and that afterlife world are different possible worlds, it is reasonable to maintain that they are spatio-temporally disconnected and that it is not properly true that Anthony starts to exist in a world *when* he ceases to exist in another world. However, there is still a way in which it is legitimate to talk—at least metaphorically—of Anthony's “starting” and “ceasing” to exist. For example, there might be a correspondence law between the times of both worlds or, if the afterlife world is atemporal, Anthony atemporally exists in that world without starting to exist there and he simply ceases to exist in the actual world. This problem also concerns the metaphysics of time and it cannot be tackled here.

Yet, an alternative version of modal realism might be developed in order to find room for Anthony's disembodied existence.

However, if one aimed at maintaining that only the actual world is real, she could nevertheless get through the second stage. Here is a possibility. We assumed right at the outset that the actual world is a physically-1 possible world. I shall dub 'Earth' the actual world-*qua*-physically-1 possible world. However, it might be the case that Earth is *not* the *entire* actual world, namely—and more properly—that it is not a possible world at all, but only a proper part (a region) of the actual world. In other terms, Earth is a region whose physical laws do *not* allow for Anthony's disembodied existence. Yet, outside that region—and still within the actual world, within some other region (i.e., Heaven)—it can be the case that Anthony exists disembodied (or that he has some non-actual-a physical support).¹⁹

This move can be done after having redefined our view of Earth. For example, Earth would not be maximal: the possible states of affairs included or precluded in it would not be all the possible states of affairs—but all the possible states of affairs (implicitly) relative to a certain region (the region "occupied" by Earth). The state of affairs of Anthony's disembodied existence would not be properly precluded in the actual world: it would only be precluded in Earth. The actual world would only preclude Anthony's disembodied existence *in Earth*, but not in the region outside Earth. In addition, physical laws would not turn out to be ubiquitous in the actual world: there would be regions of the actual world (regions outside Earth, such as Heaven) with different physical laws—or no physical law at all.

I cannot explore here these hypotheses and the plausibility of the theses that—as a matter of metaphysical necessity—seemingly come together with them. I only wished to illustrate two ways to conduct further research on the topic. What I can conclude here is that there truly *could* be a light (my own light, my own consciousness, or Anthony's consciousness, if you prefer) that never goes out—and that this possibility *could* be more than mere. Why not?

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¹⁹ An objection suddenly arises: if Earth is a proper part (a region) of the actual world, then the actual world is spatial and the complement of Earth (i.e., Heaven) is spatial too. This implies, in turn, that both the actual world and Heaven are physical and that Anthony cannot have disembodied existence. However, in response to this objection, one can either reject the latter inference (from being spatial to being physical) or still allow for Anthony's existence in Heaven with a non-earthly physical support. Intuitively, I would be inclined to choose the former option—but I cannot defend this option here. One more radical option consists in denying the spatiality of Heaven, i.e., in admitting that, even if Earth is spatial, there is a part of the actual world (i.e., Heaven) that is not spatial. This hinges on the possibility of something's (i.e., Heaven) being part of something else (i.e., the actual world), even without being a *spatial* part of it. Since I do not see any sound reason for affirming that all genuine parts must be spatial parts, I do not see any sound reason for rejecting the latter possibility either.

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