

# The Requirements for Formulating Physicalism

Pengcheng Jiao

Department of Philosophy, College of Humanities, Tongji University, Shanghai, China

yiyebutiaowu@163.com

**Keywords:** formulating physicalism; everything that exists; nothing-over-and-above-ness; ontological dependence; fundamentality; the physical

**Abstract:** Physicalism is the mainstream position of philosophy of mind, which usually maintains that everything that exists is nothing over and above the physical, but that how to formulate physicalism is a controversial problem. The controversial nature of this problem is due, at least in part, to the failure of the current literature to adequately consider the requirements for formulating physicalism. This paper will argue that a good formulation of physicalism should separately and comprehensively explain the three elements of the physicalist slogan: everything that exists, nothing-over-and-above-ness, and the physical. In particular, a formulation for physicalism, based on an interpretation of any of the three elements, should not simply exclude versions of physicalism based on different understandings of the other elements.

## 1. Introduction

The physicalist slogan is that there is nothing over and above the physical, or everything that exists is nothing over and above the physical. Thus, to fully understand the slogan, it is necessary to simultaneously understand the following three elements: "everything that exists", "nothing-over-and-above-ness", and "the physical". The current literature often formulates physicalism based on an understanding of a single element, ignoring the impact that the interpretation of the other two elements may have on understanding physicalism. For example, based on the supervenience interpretation of nothing-over-and-above-ness, supervenience physicalism holds that everything that exists is either the physical itself or supervenes on the physical; Based on the physics interpretation of the physical, physics physicalism holds that everything that exists is posited by some kind of physics; Neither of these physicalist formulations take the interpretation of "everything that exists" seriously. In this paper, I will argue, first of all, that an explanation of everything that exists is necessary for understanding physicalism. Second, the physicalism's formulation should not exclude the possibility of versions of physicalism based on different understandings of nothing-over-and-above-ness. Third, the question of whether physicalism is compatible with fundamental mentality is perhaps more complex than we originally thought.

## 2. The What Question And The Why Question

It is the usual view that the meaning of "everything that exists" is clear, and it usually refers to all entities that exist in the actual world or space-time region; However, strictly speaking, the understanding of "everything that exists" should include at least two aspects. First, what is "everything that exists" (the what question)? Second, why does "everything that exists" exist (the why question)? The why question asks the reason why everything that exists exist. Since physicalism is often presented as a metaphysical problem relating to all beings, it seems appropriate to answer the why question. More than that, we will show that the understanding of the "why question" and its possible answers will have a possible impact on the understanding of the "what question" and the possible answers, and to this extent, the answers to both questions are necessary for understanding physicalism. This effect can be diverse and complex, and we give only one possible example of this effect here. The case study is as follows.

A further understanding of the why question is: Why does everything that exists exist rather than

not exist? Or, why there is something rather than nothing? Given this understanding, if everything that exists might not exist, then either the question "what is everything that exists" itself might be meaningless and therefore unanswerable; Or, even acknowledging that everything that exists might not exist, we might wonder: is nothingness nothing over and above the physical - or how would understanding physicalism deal with nothingness? So, the answer to the what question presupposes some exact answer to the why question,

(1) Or, the what question might presuppose the metaphysical impossibility or even the logical inconsistency of ontological nihilism (which holds that nothing exists<sup>[1]</sup>), and an understanding of physicalism based on that presupposition would be justified in not considering the case of nihilism, so that it could simply claim that everything that exists is nothing over and above the physical. But even so, physicalism should be concerned with the reason why everything that exists exist, whether that reason exists, and if so, whether that reason itself is physical? If it doesn't exist, why?

(2) Or, the what question might presuppose that nothingness is also a kind of existents, and that everything that exists (including nothingness) is nothing over and above the physical;

(3) Alternatively, the what question may presuppose that nothingness is something over and above the physical, particularly, it may presuppose that everything that exists is nothing over and above the physical and nothingness,<sup>[2]</sup> which would be equivalent to acknowledging that nothingness is as fundamental as the physical - although this would be equivalent to a renewal of the physicalist slogan.

Although each of these three presuppositions requires further explanation or defense, their complexity is sufficient to indicate that the understanding of the why question and its answer will most likely affect the understanding of the what question and its answer, and thus the understanding and characterization of physicalism, so that the explanation of everything that exists is a reasonable requirement for formulating physicalism.

### **3. Characterization of The Physical And Fundamental Mentality**

The meaning of physicalism is literally provided mainly by the meaning of the word the physical, so a proper interpretation of the physical is particularly important for understanding physicalism. Since physicalism is often taken as the successor to materialism, and since physics has greatly advanced and changed our understanding of matter, the explanation of the physical or matter usually appeals to physics: an entity is physical if and only if it is the posit of physics. However, physics strategies often face the infamous Hempel dilemma<sup>[3]</sup>: If the physical is described in terms of current physics, then, since current physics is most likely non-fundamental and incomplete, such a physicalism' statement is likely to be obviously false; If the physical is described in terms of a future, ideal, complete physics, then, since we do not know what complete physics is, such a physicalism's formulation is likely to be empty or trivially true. In addition, since complete physics may posit fundamental mentality, physics strategies may make physicalism compatible with fundamental mentality, this an outcome that most physicalists would find unacceptable, and therefore they argue that no fundamental mentality should be added to physics strategies. <sup>[4]</sup> Of course, there are also authors who argue that there is no a priori reason that physics does not posit fundamental mindsets, and therefore no a priori reason that physicalism should not be incompatible with fundamental mentality.<sup>[5]</sup> However, even assuming that the concept of mentality is uncontroversial, neither side of the debate discusses what is "fundamental" in fundamental mentality, and thus their arguments is at least vague.

The purpose of this article is not to solve Hempel's dilemma, but to clarify the central issue that any solution to Hempel's dilemma must deal with: the (non-) compatibility of physicalism and fundamental centrality. To do this, we must take into account the interpretation of nothing-over-and-above-ness in the formulation of physicalism.

### **4. Nothing-Over-And-Above-Ness, Ontological Dependence and Fundamentality**

The concept nothing-over-and-above-ness is often seen as closely related to the concept ontological dependence. Physicalism claims that everything that exists is nothing over and above the

physical, and we can rephrase this slogan in terms of ontological dependence, that is, everything that exists, non-physical entity or non-fundamental physical entity, is ontologically dependent on fundamental physical entity. Thus, a precise understanding of nothing-over-and-above-ness involves a precise understanding of ontological dependence and fundamentality, which is hardly seriously noticed in the current literature. ontological dependence and fundamentality are a pair of closely related concepts. For example, classical metaphysical foundationalism holds that an entity is fundamental if and only if it is not dependent; and vice versa, an entity is dependent if and only if it is not fundamental. This view is present in the current mainstream understanding of the physicalist spirit. For example, physicalism generally holds that the physical is fundamental and independent, while the non-physical is non-fundamental, dependent. In the case of supervenience physicalism, although supervenience is a concept that characterizes covariant relations - so logically the two relata of covariant relation may be equally fundamental or equally dependent, supervenience physicalism attempts to show, first, that the mental is asymmetrically dependent the physical, that is, mental entity is dependent on physical entity, and not vice versa; Second, physical entity must be fundamental entity, while mental entity must be non-fundamental entity, that is to say, there is a strict hierarchy between the mental and the physical, and they cannot both be at the fundamental level of reality. We will show that both of these points are suspect for the following reasons:

(1) Ontological dependence is not necessarily asymmetric, it can be symmetric; <sup>[6]</sup> Moreover, both relata of symmetric ontological dependence can be at the fundamental level of reality.<sup>[7]</sup>

(2) a fundamental entity can be a dependent entity, that is, a fundamental dependent entity is possible;<sup>[8]</sup>

Given (1) and (2), let us consider their respective effects on the physicalism's formulation. Consider (1) first. Given (1), the ontological dependence can be symmetric, and the symmetric ontological dependence can be at the fundamental level of reality, we can say, both relata of the ontological dependence relation can be at the fundamental level of reality, then this case will allow not only the ontological interdependence of the mental and the physical, but also the fundamental ontological interdependence of the two. Importantly, this case would make logical space for the possibility of panpsychist physicalism.

Given (2), an entity could be both fundamental and dependent. It is then possible for the mental entity to be regarded as the fundamental and dependent entity, that is to say, although the mental entity is dependent on the physical entity (and not vice versa), the mental entity can also be at the basic level of reality. This would make logical space for the possibility of strong emergent physicalism.

## 5. More Versions of Physicalism

Since, as mentioned earlier, different interpretations of nothing-over-and-above-ness are metaphysically acceptable, the formulation of physicalism should not at least exclude versions of physicalism based on different understandings of nothing-over-and-above-ness itself, the question now is: is it possible to form a prima facie credible physicalism based on fundamental symmetry or asymmetric ontological dependence? The answer is yes, and the details are as follows.

First, let's consider the case of fundamental symmetric ontological dependence. Although the two relata in a fundamental symmetric ontological dependence relation may both be physical entity, this is not necessarily the case. That is to say, it is (at least) metaphysically possible that the mental and the physical are fundamentally ontologically interdependent, in which case, although the mental is fundamental, it is not nothing over and above the physical, because it is (symmetrically) dependent on the physical. Therefore, this is still a physicalistically-acceptable case. In fact, that case is similarly defended in the literature. As Strawson states that:

You can't possibly have experience without matter, because it is matter. And, quite possibly, conversely.<sup>[9]</sup>

In other words, the best interpretation of the above quote is that Strawson believes that the interpretation of the physical should advocate the fundamental ontological interdependence of the mental and the physical. This kind of physicalism based on this interpretation of the physical is what Strawson called panpsychist physicalism.<sup>[10]</sup> One may distrust or even oppose panpsychist

physicalism, but one should not rule out the possibility of panpsychist physicalism just by virtue of formulating physicalism. Quite the contrary, according to the fundamental symmetric ontological dependence, the formulation of physicalism should in principle allow for the possibility of panpsychist physicalism.

Second, let us consider the case of fundamental asymmetrical dependence, in which the mental entity is fundamental, but it is still (asymmetrically) dependent on the physical entity, and is therefore still a physicalistically-acceptable. As Barnes<sup>[8]</sup> argues, the mental entity is a strong emergent entity, with novel downward causality, which is similar to the strong emergent physicalism defended by Zhong Lei<sup>[11]</sup>. Zhong Lei believes that strong emergent physicalism can better solve the exclusion problem that troubles non-reductive physicalism than other solutions, so it is a kind of physicalism worthy of serious treatment. Similarly, one can continue to distrust and even oppose strong emergent physicalism, but one should not rule out the possibility of strong emergent physicalism solely by virtue of formulating physicalism. Rather, according to the fundamental asymmetric ontological dependence, the formulation of physicalism should in principle allow for the possibility of strong emergent physicalism.

Third, let us consider the case of the structure of reality based on the dichotomy between fundamentality and dependence, and the versions of physicalism based on this dichotomy are various forms of classical physicalism, such as supervenience physicalism as so-called minimal physicalism. supervenience physicalism holds that the mental entity exists, but as being non-fundamental entity, the mental entity supervenes/dependent on the fundamental physical entity. The two kinds of entity are not allowed to be on the same level of reality. Of course, physicalism's formulation should not exclude such classical physicalism. It is worth emphasizing that eliminationist physicalism and reductionist physicalism are radical versions of classical physicalism, and the former is more radical than the latter. The former claims that the mental entity as the dependent event does not exist, and the reference to the mental entity is meaningless. The latter also believes that the mental entity as the dependent entity does not exist, but it is meaningful to talk about the mental entity.

In summary, the physicalism's formulation should be compatible with as many versions of physicalism as possible, which is one of the core requirements for formulating physicalism. At the same time, the revelation from the above three types of physicalism is that the question of whether physicalism is compatible with the fundamental mentality depends on which kind of physicalism is more credible, and thus to a large extent depends on which ontological dependence structure is more credible. Although we cannot simply say that physicalism should be compatible with the fundamental mentality, neither should we completely deny the possibility of compatibility, in particular, perhaps when considering that symmetric ontological dependence structure is more plausible structure of reality, there is even a good reason to think that a physicalist should choose the version of physicalism that asserts that physicalism is compatible with fundamental mentality, rather than the version that is incompatible with it.

Of course, since there are cases in which physicalism and fundamental mentality may be compatible, then there may also be cases in which they are necessarily incompatible. In short, to return to the slogan of physicalism, if there is an entity that is something over and above the physical, then such entity must be incompatible with physicalism. In ontological dependence terms, if the physical entity is fundamentally ontologically asymmetrically dependent on the non-physical entity, such as the mental entity, that is, the physical entity is dependent on the mental entity, but not vice versa, then such non-physical entity must be incompatible with physicalism. Moreover, considering the case based on the dichotomy of fundamentality and dependency, in which the physical entity is ontologically dependent on the non-physical entity, such as the mental entity, and in which the physical entity is at the non-fundamental level of reality, while assuming that the mental entity is at the fundamental level of reality, there is no doubt that the kind of fundamental mentality is also necessarily incompatible with physicalism.

## 6. Conclusion

In summary, the formulation of physicalism should separately and comprehensively consider the

interpretation of everything that exist, that of nothing-over-and-above-ness, and that of the physical. The conclusions of this paper are as follows: First, the interpretation of everything that exists is complex, and its impact on the physicalism's formulation needs further investigation. Second, the understanding of physicalism based on different interpretations of nothing-over-and-above-ness encompass almost all the important versions of physicalism that have ever appeared in the existing literature. Therefore, one should treat these versions of physicalism neutrally in formulating physicalism, and if you advocate a particular version of physicalism, you should argue for that version. In other words, to defend a particular version of physicalism, you should at least argue that a particular ontological dependence on which that version of physicalism is based is more credible, rather than simply excluding the possibility of other versions of physicalism in terms of the general formulation of physicalism. Third, physicalism and fundamental mentality are not necessarily incompatible; whether they are compatible depends on whether we take panpsychist or strongly emergent physicalism seriously, and ultimately depends, and ultimately depends at least in part on which kind of ontological dependence relation is more plausible.

## References

- [1] Westerhoff, J. (2024). An argument for ontological nihilism. *Inquiry*, 67(1), 513-559.
- [2] Tiehen, J. (2022). The absentminded professor, *Inquiry*.
- [3] Hempel, C. (1980). Comments on goodman's ways of worldmaking. *Synthese*, 45,193–199.
- [4] Wilson, J. (2006). On characterizing the physical. *Philosophical Studies*, 131, 61–99.
- [5] Dowell, J.L. (2006). The physical: empirical not metaphysical. *Philosophical Studies*, 131, 1–23.
- [6] Bliss, R., & Priest, G. (2018). The geography of fundamentality: An overview. In R. Bliss & G. Priest (Eds.), *Reality and its structure: Essays in fundamentality*, pp.1–33.
- [7] Dixon, T. S. (2023). Metaphysical foundherentism. *Synthese*, 201, 86.
- [8] Barnes, E. (2012). Emergence and Fundamentality. *Mind*, 121(484), 873–901.
- [9] Strawson, G. (2019). Underestimating the Physical. *Journal of Consciousness Studies*, 26, 228-240.
- [10] Strawson, G. (2008). Real materialism: And other essays. *Oxford: Oxford University Press*.
- [11] Zhong, L. (2016). Physicalism, psychism, and phenomenism. *Journal of Philosophy*, 113(11), 572–590.