



# Defining “Physical”: The Condition Question

PHIL451

# Readings

Barbara Montero, “The Body Problem”

Daniel Stoljar, “Physicalism (SEP entry), §5.4

**Optional:**

Barbara Montero, “Post-physicalism”

# A Continuum of Views on Mind and Body

Moving from left to right, we move from positions that are least “physicalist” to those that are most “physicalist”:

Substance Dualism

Property Dualism

Nonreductive Physicalism

Reductive Physicalism

Later in the term, we will meet alternatives to these views, but these are the traditional options.

# Substance Dualism

Substance Dualism: Minds are nonphysical substances.

- Substantivalism: There are minds, and they are substances or objects (traditionally: 'spirits' or 'souls'). "To have a mind" is for there to be a *thing* that is one's mind.
  - Immaterialism: Minds (or mental substances) are wholly mental and nonphysical.
  - Property Non-Identity: Mental properties are numerically distinct from physical properties. (Mental properties the 'spiritual' properties of a nonphysical soul).
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- Substance Dualists reject each of: Token Physicalism, Type Physicalism, and Supervenience Physicalism.

# Property Dualism

Property Dualism: Substantivalism is false: to have a mind is not for there to be a special mental substance that is one's mind. It is for one's (physical) body or brain to have certain distinctive mental properties. But these distinctive mental properties are wholly nonphysical in nature – i.e., they are neither identical to, nor metaphysically supervenient upon, any physical properties of the brain or body.

- Rejects Substance Dualism's Substantivalism but upholds Property Non-Identity.
- Rejects Type Physicalism and Supervenience Physicalism but is consistent with Token Physicalism (at least as applied to mentality).

# Nonreductive Physicalism

Nonreductive Physicalism: Supervenience Physicalism is true but mental properties are numerically distinct from physical properties. This is *not* because mental properties are fundamentally nonphysical. Rather, it is because they are “higher-order” properties that are realized by some physical property or other.

- Rejects Type Physicalism but is consistent with Token Physicalism.
- Affirms Property Non-Identity, but in a radically different way than Property Dualists do.
  - The difference between Nonreductive Physicalists and Property Dualists is that the former upholds, while the latter rejects, Supervenience Physicalism.

# Reductive Physicalism

Reductive Physicalism: Supervenience Physicalism is true and mental properties are strictly numerically identical with (first-order) physical properties (e.g., physical states of the brain).

- Accepts Token *and* Type Physicalism (applied to mentality) and rejects Property Non-Identity.

# “Everything is physical”

As we’ve seen, Stoljar divides the question of physicalism into two parts. First there is:

The Completeness Question: What does it mean to say that everything is physical?

We now know how (most) physicalists answer this question: to say that everything is physical is, at very least, to accept a certain supervenience claim: for any possible world *w*, if *w* is a minimal physical duplicate of the actual world, then *w* is a duplicate simpliciter.

This tells us that everything in our world (including the chemical, the biological, the psychological, the social, etc.) is metaphysically necessitated by a realm of entities that meet a certain condition: that of being “physical.” This leads us to our second question:

The Condition Question: What does it mean to say that everything is physical?

The issue now is what this condition – that of being “physical” – amounts to.



# “Everything is physical”

In a series of publications, Montero argues that we lack any coherent, non-trivial, and plausible answer to the Condition Question. She also thinks that this is a *big deal* for philosophers who have been working on the so-called ‘mind-body problem’. Why? Because that is usually presented as the problem of finding a place for mind (intentionality, consciousness, agency, etc.) in the ‘physical world’. But if we lack any criterion of the physical, then what are we even talking about when we worry about fitting the mind into a ‘physical’ world?

What is Montero’s case for thinking that we don’t know what the physical is? We can think of it as a series of responses to various proposals on how to answer the Condition Question.

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Some standard proposals for defining the ‘physical’

# Proposal 1: Ostensive definition

Proposal 1: <Point at a rock.> See it? That's something physical! (see Montero 2002, p. 184)

- Problem: Granted: rocks are physical. But so, presumably, are leptons, or infinite one-dimensional strings in a 10-dimensional space. But what do rocks and leptons or 'strings' have in common in virtue of which both are physical? This proposal doesn't tell us.
- Another problem: Aren't paradigmatically mental states like beliefs and perceptual experiences in some respects more like rocks than leptons? After all, leptons are scientific posits, while rocks and beliefs are items of our commonsense ontology.
- Yet another problem: Rocks surely count as physical exemplars only on the assumption that Idealism – the view that everything, rocks included, is fundamentally mental – is false.

## Proposal 2: Definition by negation

Proposal 2: Instead of looking for a criterion of the physical perhaps we should look for a criterion of the *non-physical* or the *immaterial*.

- Problem: Don't say "the non-physical is ghostly" because there is no plausible way of saying why Caspar the Friendly Ghost qualifies as non-physical that doesn't also apply to various elementary particles posited by physics. (Neutrinos, for example, can pass through solid objects: just like Caspar!)
- "What we take to exist is in flux: yesterday's ghostly phenomena, such as massless particles, or curved space-time, can turn out to be central to today's scientific understanding of the world." (Montero 2002, p. 193)

## Proposal 2: Definition by negation

Proposal 2: Instead of looking for a criterion of the physical perhaps we should look for a criterion of the *non-physical* or the *immaterial*.

- Another problem: Don't say "the non-physical is Cartesian mental substance and its properties" because contemporary physics doesn't posit any one kind of physical substance (as did Descartes's early modern physics) against which we can define the non-physical. Contemporary physics posits many different kinds of elementary particle. Thus, physicists don't believe in some one thing, "physical substance," against which the mental can be defined as "stuff of a different kind."

## Proposal 3: Definition by deference. (I.e., Ask the physicists!)

Proposal 3: The physical is just whatever is or is metaphysically supervenient on to the microphysical, and the microphysical is whatever physical theory posits as the microphysical.

- Famous problem: ‘Hempel’s Dilemma’. Is the microphysical whatever *current* physical theory posits, or is it whatever a *future* as-yet unspecified physical theory posits?

# Hempel's Dilemma: Horn 1

If the microphysical is whatever *current* physical theory posits, then physicalism is almost certainly false. Why? Because contemporary physics is either incomplete – few think we know *all* the microphysical truths yet – or partly mistaken – few think that every single claim of contemporary theoretical physicists is true.

## Hempel's Dilemma: Horn 2

If the microphysical is whatever a future as-yet unspecified physical theory posits, then we don't understand what physicalism says, and so the proposal is too vague to be of use.



## Hempel's Dilemma: Horn 2

Another problem with taking the second horn: it runs the risk of making physicalism true 'on the cheap' and so uninteresting. If, by a "completed physics", we just mean a physics that explains everything, then a completed physics is one that explains mentality (assuming mentality exists). On this understanding, physicalism is true by definition (or 'analytically' true).

(Cf. Chomsky: "We call something physical when we understand it.")

## Hempel's Dilemma: Horn 2

*Besides Hempel's point that relying on a future physics makes physicalism a rather indefinite theory, another consequence of using the notion of "physics in the end" or "a completed physics" to explain the physical is that, at least under a certain interpretation, it seems to trivially exclude the possibility that the mind is not physical. For on one understanding of it, a completed physics amounts to a physics that literally explains everything. And if mentality is a real feature of the world, it follows, on this definition, that a completed physics will explain it too. But neither physicalists nor their foes think that at this time in the debate we already know that the mind is physical simply because this fact follows from the definition of physical. Physicalists think the claim needs to be argued for and, as many hold, will ultimately depend on what scientific investigation reveals. And their foes clearly do not think that they are denying what amounts to, more or less, an analytic truth. (Montero 2002, p. 191)*

## Hempel's Dilemma: Horn 2

What if mentality is revealed to be unexplainable in terms of anything more basic? Physicalism would *still* be trivially true. In that scenario, facts about the mental would simply figure among the fundamental principles of the final physical theory. The mental is revealed to be one of the fundamental building blocks of the universe. (Montero 2002, p. 192-3).

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Montero thinks there has been no adequate response to Hempel's Dilemma, and so no adequate way to hand the question of “the physical” off to the physicists.



# Has the entire debate been meaningless?

If there is no workable criterion of the physical, has the (many century old) debate over physicalism and dualism been meaningless?

Montero doesn't think so. What is really at stake in the debate between physicalists and their opponents is whether any aspect of the mental (consciousness, intentionality, or rationality) is *fundamental*.



# Montero's alternative

Physicalists would appear to be motivated by the following picture:

- (i) There is a fundamental level of reality, comprising various fundamental objects instantiating various fundamental properties/relations and behaving in accord with various fundamental laws.
  - (ii) Everything that exists is either fundamental or 'nothing over and above' something at the fundamental level.
  - (iii) Mentality exists, but not at the fundamental level.
  - (iv) Thus, mentality is somehow nothing over and above something at the fundamental level.
- If this picture is correct, then mentality is like chemical bonding or DNA replication or the weather or currency inflation—perfectly real but not *fundamental* (as entities like quarks and leptons might be fundamental).

## Montero's alternative

- Question to have in mind as we turn, next time, to David Papineau's 'causal argument' for physicalism: could we reformulate Papineau's argument in Montero's preferred terms without losing any of the argument's substance?
- (If you are curious to see Montero engage directly with Papineau, check out her article 'Post-Physicalism', which is today's optional reading).