

# Against Old Facts Under New Modes\*

Anonymous

Draft of February 2016

**Abstract:** Jackson [1982, 1986] envisions a thought experiment involving Mary, a color-deprived neuroscientist raised in a black and white room, who knows all the physical facts. When she emerges from the room and sees a ripe red tomato for the first time, she learns a new fact. Therefore, says the knowledge argument, not all facts are physical facts. The “old fact new mode” view denies that Mary does not know all the facts while in the black and white room. When Mary sees the red tomato, she learns an old fact, a fact she already knew, in a new way. I argue that the old fact new mode view cannot be correct. It is committed to an identity claim between facts that makes it vulnerable to an objection reminiscent of multiple realizability objections against mental-physical identity views in the philosophy of mind.

## 1 Mary and the Old Facts

Jackson [1982, 1986]’s knowledge argument appears to show that not all facts are physical facts.<sup>1</sup> Mary, a color-deprived neuroscientist raised in a black and white room, knows all the physical facts. When she emerges from the black

---

\*Acknowledgements.

<sup>1</sup>A lesser-known variant of the knowledge argument that revolves around experience of sound, rather than color, independent of and roughly concurrent with Jackson’s, can be found in Robinson [1982].

and white room and sees a ripe red tomato for the first time, she learns a new fact. Therefore, says the knowledge argument, not all facts are physical facts. One of the most popular physicalist response to the knowledge argument is the “old fact new mode” view (Balog [2012], Byrne [2002], Churchland [1985], Horgan [1984], Levin [2007], Lycan [1990a,b], Loar [1990], Papineau [2007, 2002], Tye [1986, 1995], and others).<sup>2</sup>

According to this view, the knowledge argument does not show that not all facts are physical facts. Mary does not learn new facts - she learns old facts, which she already knew, in a new way.

We need an example to work with. The knowledge argument appears to show that Mary cannot know, e.g., the fact that tomatoes cause people to experience red.<sup>3</sup> Suppose that a person experiences red iff he or she is in physical state P. The old fact new mode view tells the following story. In the black and white room, Mary already knew that tomatoes cause people to be in physical state P. The fact that tomatoes cause people to be in physical state P is identical to the fact that tomatoes cause people to experience red. Therefore, Mary already knew the fact that tomatoes cause people to experience red. Thus the old fact new mode view denies that Mary learns new facts when she leaves the black and white room.

---

<sup>2</sup>For a good overview of the different versions of the old fact new mode view, cf. section 4.6 of Nida-Rumelin [2009]. The differences between these views need not concern us here, because I attack the claim of fact identity to which they are all committed.

<sup>3</sup>In English, the term ‘red’ is ambiguous, or perhaps polysemous, between several different conceptions of “red”. ‘Red’ might mean a surface reflectance property of objects, a wavelength of light, or a certain qualitative feel. I use ‘red’ here with the third meaning. It might turn out that all these different concepts of red are extensionally, or even intensionally, equivalent. But they are different concepts, with different meanings, nonetheless. It is only the connection between tomatoes and red in the qualitative sense that Mary allegedly cannot know. To my knowledge, no one has claimed that Mary cannot know which wave-length of light tomatoes reflect.

The old fact new mode view supplements this story with an explanation of the illusion that Mary learns a new fact. Mary does learn something new, but it's not a new fact. She learns a fact she already knew, the fact that tomatoes cause people to be in physical state P, via a new mode of presentation. The relevant mode of presentation involves the (qualitative) concept of red. The old fact new mode view admits that on a fine-grained conception of the objects of knowledge, Mary does not know it all before she leaves the black and white room. But the old fact new mode view introduces a coarse-grained object of knowledge, the fact, and claims that Mary knows all these coarse-grained objects. All the coarse-grained facts are physical, Mary knows them, and that is all that physicalism requires.

I plan to argue against the old fact new mode view, particularly against the claim that all facts are physical facts. My argument is a variation on familiar multiple realizability objections to mental-physical identity views. The old fact new mode view identifies certain macroscopic facts about our world (facts about the mental, or about shapes) with purely physical microscopic facts about our world. But if the macro facts are identical to (or are "the same facts as") the micro physical facts, then these facts should be true at all the same possible worlds. But certain macro facts (someone experiences red, a sphere exists) can be true at worlds with no physical properties whatsoever, and at which no physical facts are true. Therefore, these macroscopic facts can't be identical to any microphysical fact, and not all facts are physical facts. The realizability of macroscopic facts by non-physical microscopic facts sinks the old fact new mode view.

## 1.1 Old Facts

According to the old fact new mode view, all facts are physical facts. Consider the fact that someone experiences red. Which physical fact is this? In the story above, we identified the fact that tomatoes cause people to experience red with the fact that tomatoes cause people to be in physical state P. It is then natural to identify the fact that someone experiences red with the fact that someone is in physical state P.

Here is my argument against the old fact new mode view.

(P1) If the old fact new mode view is true, then the fact that someone experiences red is identical to the fact that someone is in physical state P.

(P2) (**fact identity**) For all facts A and B: if A and B are identical, they are true at the same possible worlds.

(P3) If **fact identity** is true, then if the fact that someone experiences red is identical to the fact that someone is in physical state P, then these two facts are true at the same possible worlds.

(P4) These two facts are not true at the same possible worlds.

(C) The old fact new mode view is false.

Premise (P1) is simply the most obvious implementation of the old fact new mode view's claim that all facts are physical facts. Premise (P2), which I have dubbed "fact identity", is the tremendously plausible claim that if two facts are identical, they are true at the same possible worlds. Premise (P3) is simply an instance of (P2). Premise (P4) can be demonstrated by an example.

Consider the metaphysically possible world **Heaven**. Heaven is a constructed of very different fundamental stuff than the actual world. The actual

world is constructed of physical elements: quarks, bosons, gravity, and the like. Heaven is constructed from non-physical stuff: ectoplasmons and ghostons, which float in an ether, and are governed by a force called “kismet”. The fundamental microscopic structure of Heaven generates a rich macroscopic structure. Heaven contains a large variety of life, including sentient creatures called ‘angels’. Angels have rich mental lives. They experience red. At Heaven, it is true that someone experiences red; many of the angels do. But no one at Heaven is in physical state P. At Heaven, there are no physical states at all, because there are no fundamental physical particles, properties, or forces. At Heaven, the fact that someone experiences red is true; the fact that someone is in physical state P is false. Premise (P4) is true.

## 1.2 Physicalism and Heaven

In this section, I explain why physicalism is compatible with the metaphysical possibility of Heaven. It is only the old fact new mode view, with its claim that all facts are physical facts, that is incompatible. First, I point out that Heaven is compatible with most extant definitions of physicalism, including those of Chalmers [1996], Jackson [1993], Lewis [1983], Leuenberger [2008], and Stoljar [2009].

One conception of physicalism is that the macroscopic features of our world are realized by, or hold in virtue of, the microscopic purely physical features. The coffees, cars, koalas, and consciousnesses are the way they are in virtue of the way the fundamental physical layout of the world is - how the quarks, bosons, gravity, and nuclear forces are. This intuition is, I think, the motivating thought behind physicalism. Let’s call this the *fundamentality conception* of physicalism.

The fundamentality conception has modal import. It entails that, necessarily, if we copy the actual world in all its fundamental physical respects, we copy the actual world in all its respects. All the fundamental (micro) physical duplicates of the actual world are duplicates *simpliciter*. The modal import of the fundamental conception can be cashed out this way: Take all the possible worlds. Throw out all the worlds that are not fundamental (micro) physical duplicates of the actual world. All the remaining worlds are duplicates *simpliciter* of the actual world. The world Heaven is not among the fundamental microphysical duplicates of the actual world. Physicalism cares not what happens there.

The modal import of the fundamentality conception captures the familiar point that physicalism is a contingent thesis, but one which makes claims about what must be. Necessarily, says physicalism, all the fundamental physical duplicates are complete duplicates. Physicalism says that the actual world is, at its most fundamental level, physical. But it does not say that every world is fundamentally physical. Physicalists believe that Descartes was wrong. The actual world is not as he imagined it. But physicalists need not maintain that no world could possibly be as Descartes imagined. Heaven is clearly a world at which physicalism is false; but this does not challenge physicalism.

The fundamentality conception is compatible with the possibility of Heaven. The claim that the tables, people, and experiences of our world exist in virtue of the layout of the fundamental physical world is compatible with the claim that, at other exotic worlds, tables, people, and experience exist in virtue of the way the fundamental particles of that world are. Furthermore, these

fundamental particles might be non-physical. They might be ectoplasmons and ghostons floating in the ether.

### 1.3 Fighting Against Heaven

I've shown that the metaphysical possibility of Heaven is no challenge to physicalism *per se*. But it is a challenge to the old fact new mode view, and to the claim that all facts are physical facts. A proponent of these latter claims will defend his or her view by denying premise (P4), arguing that Heaven is metaphysically impossible. This line of thought is mistaken. It is (i) *ad hoc* and (ii) guilty of parochialism about modality (not to mention unnecessary in a defense of physicalism).

One might deny that there can be fundamental particles, properties, or forces, other than those instantiated at the actual world. This view is unnecessarily parochial; it entails that every possible variety of fundamental stuff is actually instantiated. Here's an argument against the view. Any sub-region of the actual world is a possible world. There are sub-regions of the actual world without electrons. Therefore there are possible worlds without electrons, and not all worlds contain every variety of fundamental stuff. Given that some worlds do not contain every variety of fundamental stuff, it is unmotivated and parochial to think that we happened (by dumb luck!) to inhabit one of the few worlds that contains every variety.

Another way to resist the possibility of Heaven is to accept that there can be fundamental stuff that is not actually instantiated, but that these alien fundamentals (e.g. ghostons) can't combine to yield macroscopic phenomena like people, or experiences. This form of modal parochialism is just as bad as the first. It maintains that there could be alien non-actual fundamental

stuff, but that the actual world just happens to contain all the interesting fundamental stuff - the stuff capable of forming macroscopic phenomena like people and experiences.

There are some physicalist views that are incompatible with the possibility of Heaven. These include type-identity views and necessitarian physicalism (the claim that, physicalism, in addition to being actually true, is necessarily true). Type-identity views are unpopular due to their incompatibility with the possibility of multiple realization. The possibility of Heaven is a fancy version of the multiple realizability objection; experiential properties might be “realized” by non-physical properties. Necessitarian physicalism is a wild thesis. It certainly seems odd to maintain that dualism is not only false but necessarily so. However, I admit that these views can deny the possibility of Heaven. Die-hards fans of the claim that all facts are physical facts, and of the old fact new mode of presentation view, should consider these options.

#### **1.4 Contingent Identity**

The proponent of old facts under new modes might deny premise (P2), which says that, for all facts A and B, if A and B are the same fact, they are true at the same possible worlds. Doing so allows such a physicalist to accept the possibility of Heaven. The fact that someone experiences red and the fact that someone is in physical state P are only contingently identical (or contingently the same fact). At Heaven, they’re not identical. Call this view *contingent fact physicalism*.

I could rehearse the familiar criticisms against contingent identity. Instead I point the reader to Kripke [1972]. Utilizing a maelstrom of argu-

ments, Kripke taught us that all identity statements are, if true, necessary. In Kripke's wake few have been brave enough to defend contingent identity. But I won't take that tack here. Instead, I grant the contingent fact physicalist the claim that all the facts are, either necessarily or contingently, physical facts.

Contingent fact physicalism is compatible with Heaven, which bodes well for the view. But contingent fact physicalism is also compatible with the metaphysical possibility of philosophical zombies and inverted qualia as well all sorts of other physicalist anathema. If the fact that someone experiences red is only contingently identical to the fact that someone is in physical state P, there is no guarantee that they are identical at other worlds, even physical duplicates of the actual world (such as a zombie world).<sup>4</sup> Being in physical state P might be identical to experiencing red at one world and to experiencing blue at another. If so, inverted qualia worlds are possible. It has been widely acknowledged that if zombies, or inverted qualia, are metaphysically possible, then physicalism is false and dualism true.<sup>5</sup> Since contingent fact physicalism is compatible with the possibility of zombies and inverted qualia, the dualist can accept contingent fact physicalism. In a cheeky mood, the dualist will accept that all actual facts are (either necessarily or contingently) physical facts.

Physicalism makes a claim about modality. It claims that all the phys-

---

<sup>4</sup>A zombie world is a world that is a physical duplicate of the actual world, but which contains no experiences at all. The "zombies" who inhabit this world, including doppelgangers of you and I, walk the walk and talk the talk. They say, "I'm experiencing red". But there is no light on the inside. They have no conscious experiences whatsoever.

<sup>5</sup>Chalmers [1996], Jackson [1993], Lewis [1983], Leuenberger [2008], and Stoljar [2009] all agree.

ical duplicates of the actual world are duplicates simpliciter. Thus zombie and inverted qualia world are incompatible with physicalism, because these worlds are physical duplicates but not complete duplicates. The problem with contingent fact physicalism is that it has no modal import at all. It says that all the facts are contingently identical to physical facts. But it is agnostic about what other possible worlds are like. Contingent fact physicalism has a nice slogan (“All facts are physical facts!”), but there is really no reason to think it a form of physicalism at all.

### 1.5 Non-Physical Facts Without Heaven

The claim that all facts are physical facts can be defeated without a world as wild and wooly as Heaven. According to the physicalist, every fact is physical. Presumably, the fact expressed by ‘something is a sphere’ is identical to some fact expressed by a sentence of fundamental physics, which makes reference to some physical property P. Thus the fact that something is a sphere is identical to the fact that something is P.

The same move that was utilized above can be used to demonstrate that there are worlds at which something is a sphere but nothing is P. There is a possible world **Rondo** where neither P nor any other physical property is instantiated, but which contains spheres. For those who were wary of Heaven’s credentials as a possibility that is compatible with physicalism: If the possibility of Heaven entails that experiencing red is non-physical, then the possibility of Rondo entails that spheres are non-physical. I modus tollens this conditional: neither possibility challenges the status of either red experiences or spheres as physical.

## 1.6 Forget the Old Facts

I do not like the old fact new mode of presentation view. I never truly understood what was meant by ‘the physical facts’. I have tried to explain what a ‘physical fact’ might be, such that Mary could know it before she left the black and white room, but come to know it under a new mode of presentation afterward. But the best options lead to trouble.

I offer a new interpretation of what a ‘physical fact’ might be, such that if physicalism is true, all facts are physical facts.<sup>6</sup> Let’s start with a fine-grained Fregean conception of propositions, on which ‘Hesperus is bright’ and ‘Phosphorous is bright’ do not express the same proposition. A proposition is *austerely physical* if it is expressible using the restrictive vocabulary of physics, math, and logic. A proposition is *broadly physical* if it is either austerely physical or holds in virtue of some austerely physical proposition(s). We rely on the notion of one proposition holding “in virtue of” another. This

---

<sup>6</sup>In arguing against the old fact new mode view, I argued against its claim that all facts are physical facts. Now I’m endorsing a view according to which all facts are physical facts. What gives? Strictly speaking, I have not argued against the claim that all facts are physical facts. I’ve argued against the use of “all facts are physical facts” by the old fact new mode view. To support its claim that Mary knows all the facts before she leaves the black and white room, the old fact new mode view needs something like an identification of macroscopic facts about experience with facts about microphysics. This identification leads to trouble. My facts are “physical” only in the sense that they hold in virtue of microphysics. Holding in virtue of does not require identity. My view is not subject to the objections I level against the old fact new mode view. The old fact new mode view argues that, despite appearances otherwise, Mary knows all the facts before she leaves the black and white room. On my new interpretation of ‘fact’ and of ‘physical fact’, there is no reason to suppose, based on Jackson’s thought experiment, that Mary does know all the physical facts in the black and white room. (She probably knows all the austerely physical facts). The response to the knowledge argument (in the form expressed in the first paragraph of this paper) to which this understanding of “physical fact” leads is the denial that Mary knows all the physical facts. The old fact new mode view accepts that Mary knows all the physical facts. It denies that Mary learns a new fact upon emerging from the black and white room.

notion is familiar. We are acquainted with it already from claims that the mental holds in virtue of the physical, the biological in virtue of the chemical, and the moral in virtue of facts about pleasure and pain. On this proposal, the proposition that there are tables is not austere physical ('table' is not a term of physics, math, or logic). But it is broadly physical. A *fact* is a true proposition, and a *physical fact* is a true broadly physical proposition.

- If physicalism is true, then all facts are physical facts.

When spelled out, this claim says:

- If physicalism is true, then all true propositions are either austere physical or hold in virtue of some austere physical proposition(s).

What we have here is the claim that if physicalism is true, then all truths hold in virtue of the austere physical truths. If the austere physical truths completely describe the austere physical state of the world, and the other propositions describe the rest, then (2) says that the austere physical state of the world determines the entire state of the world. That sounds a lot like physicalism to me. It is very close to the definitions of Jackson [1993], Lewis [1983], Stoljar [2009].

This new approach to "physical facts" vindicates the intuition that what is at stake between the physicalist and the dualist is whether all the facts are physical facts. But this approach won't pull any weight in the knowledge argument. Jackson's widely accepted intuition is that there are some Fregean propositions that Mary cannot know. But this does not yet entail the falsity of physicalism. Physicalism requires all propositions to hold in virtue of the

austerely physical propositions. Instead of dwelling on a vague notion of “the physical facts”, and on some sense in which Mary already knows them all, my approach encourages disputants to shift their focus where it belongs: on the relationship between what Mary can and cannot know and which propositions hold in virtue of which.<sup>7</sup>

## References

- Balog, Katalin. 2012. Acquaintance and the Mind Body Problem. *Pages 16–43 of:* Hill, Christopher, & Gozzano, Simone (eds), *New Perspectives on Type Identity: The Mental and the Physical*. Cambridge University Press.
- Byrne, Alex. 2002. Something About Mary. *Grazer Philosophische Studien*, **63 (Essays in Honour of the Philosophy of Terence Horgan)**, 123–40.
- Chalmers, David. 1996. *The Conscious Mind*. Oxford: Oxford University Press.
- Churchland, Paul. 1985. Reduction, Qualia, and the Direct Introspection of Brain States. *The Journal of Philosophy*, **82**, 8–28.
- Horgan, Terry. 1984. Jackson on Physical Information and Qualia. *Philosophical Quarterly*, **32**, 127–36.
- Jackson, Frank. 1982. Epiphenomenal Qualia. *Philosophical Quarterly*, **32**, 127–136.
- Jackson, Frank. 1986. What Mary Didn’t Know. *The Journal of Philosophy*, **83**, 291–95.
- Jackson, Frank. 1993. Armchair Metaphysics. *Pages 23–42 of:* Hawthorne, John, & Michael, Michaelis (eds), *Philosophy In Mind: The Place of Philosophy in the Study of Mind*. Dordrecht: Kluwer.

---

<sup>7</sup>For an example of a paper that focuses on exactly this issue, and on the prospects for deriving metaphysical punch from what Mary can and cannot know, cf. [CITATION SUPPRESSED].

- Kripke, Saul. 1972. Naming and Necessity. *Pages 253–355, 763–769 of:* Davidson, Donald, & Harman, Gilbert (eds), *Semantics of Natural Language*. Dordrecht: Reidel. Revised edition published in 1980 as *Naming and Necessity* (Cambridge, MA: Harvard University Press).
- Leuenberger, Stephan. 2008. *Ceteris Absentibus* Physicalism. *Pages 145–70 of:* Zimmerman, Dean (ed), *Oxford Studies in Metaphysics, volume 4*. Oxford: Oxford University Press.
- Levin, Janet. 2007. What Is a Phenomenal Concept? *Pages 81–110 of:* Alter, T., & Walter, S. (eds), *Phenomenal Concepts And Phenomenal Knowledge*.
- Lewis, David. 1983. New Work for a Theory of Universals. *Australasian Journal of Philosophy*, **61**, 343–77.
- Loar, Brian. 1990. Phenomenal States. *Philosophical Perspectives*, **4**, 81–108.
- Lycan, William (ed). 1990a. *Mind and Cognition*. Blackwell.
- Lycan, William. 1990b. What Is the Subjectivity of the Mental? *Philosophical Perspectives*, **4**, 109–130.
- Nida-Rumelin, Martina. 2009. *Qualia: The Knowledge Argument*.
- Papineau, David. 2002. *Thinking About Consciousness*. Oxford: Oxford University Press.
- Papineau, David. 2007. Phenomenal and Perceptual Concepts. *Pages 111–144 of:* *Phenomenal Concepts and Phenomenal Knowledge: New Essays on Consciousness and Physicalism*.
- Robinson, Howard. 1982. Matter and Sense.
- Stoljar, Daniel. 2009. *Physicalism*. Routledge.
- Tye, Michael. 1986. The Subjective Qualities Of Experience. *Mind*, **95**(377), 1–17.
- Tye, Michael. 1995. *Ten Problems of Consciousness*. MIT Press.