

---

DISCUSSION NOTE

## No Path from Modal Rationalism to Fundamental Scrutability

Darren Bradley\*

Received: 10 August 2023 / Accepted: 15 April 2024

*Abstract:* Gabriel Rabin (2020) offers an argument from Modal Rationalism to Fundamental Scrutability. I show that the argument is invalid as stated. I offer two ways of strengthening the argument but argue that neither is effective.

*Keywords:* Modal rationalism; scrutability, fundamentality; B-type physicalism.

Gabriel Rabin (2020) offers the following argument:

1. *A Priori Access/Modal rationalism:*

An idealized reasoner could, in principle, completely describe each and every possible world down to the finest detail

2. *Supervenience on the Fundamental:*

No two worlds differ without differing at the fundamental level

Therefore

---

\* University of Leeds

 <https://orcid.org/0000-0002-7757-3902>

 School of Philosophy, Religion and History of Science, University of Leeds, Leeds LS2 9JT, United Kingdom

 [D.J.Bradley@leeds.ac.uk](mailto:D.J.Bradley@leeds.ac.uk)



### 3. *Fundamental Scrutability*:

For each world  $w$ , a conditional  $Fw \rightarrow Tw$  is knowable a priori, where  $Fw$  is a complete description of  $w$ 's fundamental level and  $Tw$  is the set of all truths at  $w$ .

I think this argument is invalid. To start with a diagnosis in abstract terms, *Modal Rationalism* is about epistemic possibility while *Supervenience on the Fundamental* is about metaphysical possibility. They do not allow us to derive *Fundamental Scrutability* which connects epistemic and metaphysical possibility.

Rabin explains why he thinks *Fundamental Scrutability* follows from the premises as follows:

We give [idealized reasoner Athena]  $Fw$ , and ask her to a priori reason her way to  $Tw$ . Here's how she can do so. By *A Priori Access*, she can describe all the ways the possible worlds could be. Therefore, she knows that there is a world, call it  $v$ , at which  $Fw \ \& \ Tw$ . But to deduce  $Tw$  from  $Fw$  she needs to figure out that  $v$  is the only world at which  $Fw$ . Might it be that  $Fw \ \& \ Tx$ , for some  $x \neq w$ ? Absolutely not, by *Supervenience on the Fundamental*.  $Fw \ \& \ Tx$  is impossible.

But *Supervenience on the Fundamental* is not enough to arrive at this negative answer. The easiest way to see why is to consider what Chalmers (2003 section 5) calls type-B physicalists, who affirm that (physical) fundamental properties *metaphysically* necessitate non-fundamental phenomenal properties (supervenience), but do not *epistemically* necessitate these non-fundamental phenomenal properties (scrutability).<sup>1</sup> To use a familiar example, suppose the firing of c-fibres metaphysically necessitates pain, but agents cannot infer a priori from the firing of c-fibres to the instantiation of pain.

So, let's re-write the passage above using the pain/c-fibres example:

We give Athena a physical description of the world, and ask her to a priori reason her way to a phenomenal description of the world. Here's how she can do so. By *A Priori Access*, she can describe all the ways the possible

---

<sup>1</sup> See Chalmers (2012) for this terminology.

worlds could be. Therefore, she knows that there is a world, call it *v*, at which *c*-fibres fire & pain is instantiated. But to deduce the pain from the *c*-fibres, she needs to figure out that *v* is the only world with that physical description. Might it be that *c*-fibres fire without pain?

The B-type physicalist says yes! Athena can work out *that* there is only one metaphysically possible world fitting the physical description, but she cannot work out *whether* it contains pain. Both a world with pain and without pain are epistemically possible, and as we are asking what an agent can infer, it is epistemic possibility which matters. (The type-B physicalist will agree that *Fw* & *Tx* is *metaphysically* impossible, but *Fundamental Scrutability* requires that it is epistemically impossible.)

What would be needed to make the argument valid? I'll consider two ways to strengthen the argument, but neither will be very effective at supporting *Fundamental Scrutability*.

First, we could strengthen *Supervenience on the Fundamental*:

*Supervenience on the Fundamental+*:

No two *epistemically possible* worlds differ without differing at the fundamental level

This would close the gap between epistemic and metaphysical possibility, saying that when we fix the fundamental level, we fix which world is epistemically possible at all levels.

But no-one who doubts *Fundamental Scrutability* will find *Supervenience on the Fundamental+* tempting. Type-B physicalists who deny that there is an a priori path of reasoning from the physical to the mental are saying that there *are* two different epistemically possible worlds which don't differ at the fundamental level.

Furthermore, it would be misleading to call *Supervenience on the Fundamental+* a 'supervenience' principle, as supervenience has usually been connected to metaphysical possibility e.g. Mooreans agree that the ethical supervenes on the physical but deny that the ethical could be explained by the physical, leading to the open question argument and non-naturalism.<sup>2</sup>

---

<sup>2</sup> See Enoch (2011) for a contemporary defence of non-naturalism.

Alternatively, *Modal Rationalism* could be strengthened:

*A Priori Access/Modal rationalism+:*

An idealized reasoner could, in principle, identify whether a world were metaphysically possible given a complete description of it in canonical<sup>3</sup> terminology.

This would also close the gap between epistemic and metaphysical possibility, allowing an idealized reasoner to tell whether ‘c-fibres firing without pain’ is metaphysically possible. I suspect that this is the way modal rationalists will want to go, as a motivation behind modal rationalism is that we have epistemic access to all the facts about modality.

But type-B physicalists will deny that an idealized reasoner could, in principle, identify whether a world with c-fibres firing and without pain is metaphysically possible. They hold that such a world is metaphysically impossible, but that one cannot discover this a priori. There are other examples not related to the mind-body problem. Perhaps some controversial metaphysical theses (e.g. the existence of numbers, the existence of God, principles of composition) are metaphysically necessary but epistemically contingent. If so, an idealized reasoner might be unable to identify whether a world without numbers is metaphysically possible despite having a complete description of the world in canonical vocabulary. Thus, an idealized reasoner’s list of all the epistemically possible worlds in canonical vocabulary would include some which are metaphysically impossible.

To be clear, I am actually sympathetic to *Fundamental Scrutability*. My point here is that it does not follow from Rabin’s versions of *Modal Rationalism* and *Supervenience on the Fundamental*. We need stronger premises to rule out type-B physicalists who insist that epistemic possibilities outrun metaphysical possibilities; but the natural stronger formulations discussed above will not be tempting to opponents of *Fundamental Scrutability*.

---

<sup>3</sup> Without this restriction to canonical terminology this principle would be trivially true. Plausible canonical terminology would be the conjunction of physical, phenomenal and indexical terminology plus a that’s-all clause. See Chalmers (2012 section 8.5) for a detailed discussion of various version of modal rationalism.

---

### Acknowledgment

I am grateful to the Templeton Foundation for partially funding this research.

### References

- Chalmers, D. (2003). 'Consciousness and Its Place in Nature'. In *Blackwell Guide to the Philosophy of Mind*, edited by S. Stich and F. Warfield, 102–42. Oxford: Blackwell.
- Chalmers, D.J. (2012). *Constructing the World*. Oxford: Oxford University Press.
- Enoch, D. (2011). *Taking Morality Seriously: A Defense of Robust Realism*. Oxford: Oxford University Press on Demand.
- Rabin, G. O. (2020). A Short Argument from Modal Rationalism to Fundamental Scrutability. *Thought: A Journal of Philosophy*, 9(2), 137–39.  
<https://doi.org/10.1002/tht3.446>