1. The Knowledge Argument Against Physicalism

(1) If physicalism is true, then to know all the physical facts in domain $D$ is to know all facts in $D$.

“A complete account of what our world is like can in principle be told in terms of a relatively small set of favoured particulars, properties, and relations—the ‘physical’ ones. The world is entirely physical in nature; it is nothing but, or nothing over and above, the physical world. A full inventory of the instantiated physical properties and relations would be a full inventory simpliciter.”

“Any world which is a minimal physical duplicate of our world is a duplicate simpliciter of our world.”

“Every mental fact is entailed by the physical facts, i.e. by how the physical (or micro-physical) world is.”

(2) It is possible to know all physical facts in $D$ without knowing all facts in $D$: Mary the colour scientist.

(3) Therefore, physicalism is false.

2. The Conceivability Argument Against Physicalism

This argument concludes from the possibility of a creature that lacks subjective phenomenal experience to the falsity of physicalism.

Preliminaries

(1) In our world, there are conscious experiences (mental realism).

(2) A (philosophical) zombie is a creature that is a molecule for molecule duplicate of me, but it lacks subjective conscious experience completely.

(3) Zombies are conceivable.

(4) If zombies are conceivable, then zombies are metaphysically (absolutely) possible.

(5) Therefore, zombies are metaphysically (absolutely) possible. (from 3 and 4)

First way to complete the argument

(6) If physicalism is true, then a physical duplicate of our world is a complete duplicate (a duplicate simpliciter). This is because the physical facts fix all the facts, including mental facts: once the physical facts are fixed, all facts are fixed (see above). We might also say: once the physical facts are fixed, further extra facts are impossible; or the physical facts entail all the facts. Two worlds that are alike in all physical respects could not differ in respect to mental facts (i.e. mental facts supervene on physical facts, cf. back page).

(7) If zombies are possible, then there is a duplicate of our world that is not complete, or differs in respect to mental facts. In our world, there is conscious experience; and in the zombie world, there is no conscious experience. Hence, facts about consciousness are extra facts. (from 2 and 5)

(8) Therefore, there is a physical duplicate of our world which is not complete.

(9) Therefore, physicalism is false. (from 6 and 8)

Second way to complete the argument

(6*) If physicalism is true, then all properties are either (a) physical properties or (b) supervene on physical properties. So, consciousness too is either a physical property or consciousness supervenes on physical properties.

(7*) If zombies are possible, then there is a creature that is indistinguishable from me in all physical respects but lacks consciousness. This means two things. (a) I am conscious, while my zombie duplicate is not; yet since we share all physical properties, consciousness is not a physical property. We would both be conscious if consciousness were a physical property. (b) Similarly, since this creature is indiscernible from me only in physical, but not conscious, respects, consciousness does not supervene on physical properties. (from 2 and 5)

(8*) Therefore, consciousness is neither a physical property, nor supervenes on physical properties.

(9*) Therefore, physicalism is false. (from 6* and 8*)

3. Supervenience

The Bare Idea. Variation of one kind is linked to variation of another kind. ‘There could be no difference of one sort without difference of another sort’ (David Lewis).

(1) Supervenience for one thing: in terms of dependent variation:
   (a) If prop A supervenes on prop B, then sameness in B excludes a difference (change) in A. (b) If A supervenes on B, then there is no difference (change) in A unless there is a difference (change) in B. (c) Once B is fixed, A cannot vary.
   Example: Suppose that the aesthetic features of a painting supervene on its physical features. If any of its aesthetic features changes, then one or the other of its physical features changes too. Similarly, if its aesthetic features change, then its physical features cannot remain the same: a difference in its aesthetic properties excludes sameness in its physical properties.

(2) Supervenience for two things: in terms of indiscernibility:
   (a) If A supervenes on B, then if two things that share all their B-properties, they also share all their A-properties. (b) If two things are indiscernible in regard to B, then they are indiscernible in regard to their A. (c) B-indiscernibility entails A-indiscernibility.
   Example: If two pictures are indistinguishable in regard to all their physical features, then they are also indiscernible in regard to their aesthetic features.