

12. Mental causation

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1 An argument against mental causation

Earlier in the course, we examined the argument from *causal overdetermination* as an argument against interactionist dualism. We saw that, if the argument was sound, the only escape for the dualist was some version of *epiphenomenalism*.

Yablo to show that epiphenomenalism is false: not only mental properties and events *can* cause physical properties or events, but that in some cases, it is the physical properties and events that are causally superfluous.

Let's start by presenting an argument for the position he rejects, which people usually call the *exclusion argument*:

1. If an event x is causally sufficient for an event y , then no event x^* distinct from x is causally relevant to y . (exclusion)
2. For every physical event y , some physical event x is causally sufficient for y . (physical determinism)
3. For every physical event x and mental event x^* , x is distinct from x^* . (dualism)
4. So: for every physical event y , no mental event x^* is causally relevant to y . (epiphenomenalism)

Yablo thinks that identity theory doesn't do any better than epiphenomenalism. True, if identity theory were correct, and every mental property or event was identical with some physical property or event, then mental properties would have the same causal powers as the corresponding physical properties (since they would be exactly the same properties!). Unfortunately, the objection from the multiple realizability of mental properties and events seems to be enough to discard identity theory.

Moreover, Yablo thinks that not even *token* mental events are identical to *token* physical events, so we better explain how mental events can cause physical events.

2 Determinates and determinables

Yablo's strategy is quite simple: he observes that it follows from premises that most people accept that some mental and physical properties, events, and so on, stand in *determinate-determinable* relations with each other. By arguing that when a given property or event is a determinate of another, it doesn't preempt the causal powers of the latter, he argues that mental properties and events *can*

cause physical properties and events. He further argues for some requirements on cause-effect relations in order to show that, in most cases where we think that something mental causes something physical, the mental thing indeed causes the physical thing, but the physical realization of the mental thing doesn't.

Let's start by explaining the determinate-determinable relation. Some properties are more determinate than others: for instance, the property of being *colored* is less determinate than the property of being a specific color, say, *red*, and this property is less determinate than the property of being a specific shade of red, say *crimson*. Being red, yellow or green are specific ways of being *colored*. Because of this, we say that being red, being yellow and being green are each a *determinate* of the determinable *being colored*. Similarly, being crimson, being vermilion and being burgundy are determinates of the determinate *being red*. But of course, being amber and being saffron are not determinates of the determinate *being red*.

Yablo offers a more precise characterization of this relation, which he dubs *determination*:

(Δ) P determines Q ($P > Q$) only if:

- (i) necessarily, for all x , if x has P then x has Q; and
- (ii) possibly, for some x , x has Q but lacks P.

With a sharp notion of determination in place, he is in a position to argue that mental properties and their physical realizations stand in this relation. That is, he argues that physical events or properties *determine* mental events or properties, or that some physical properties and events are determinates of determinable mental properties and events.

3 Physical determines mental

Yablo claims that most people accept that the mental is supervenient on, but multiply realizable in, the physical. He states these two theses as follows:

Supervenience (S): Necessarily, for every x and every mental property M of x , x has some physical property P such that necessarily all P s are M s.

Multiple realizability (M): Necessarily, for every mental property M , and every physical property P which necessitates M , possibly something possesses M but not P .

But note that this entails that, necessarily, something has a mental property if it has a physical property by which that mental property is asymmetrically necessitated. But asymmetric entailment amounts to the relation of determination presented above. So we can replace 'determines' for 'asymmetrically entails' in the claim above. Thus:

(D): Necessarily, something has a mental property if and only if it has also a physical determination of that mental property.

(D) is the standard way of characterizing things that stand in the determinate/determinable relation: something has a determinable property if and only if it has some determinate that falls under that determinable. A good explanation of this fact is that the relation between physical and mental properties is a species of determinate/determinable relation.

Knowing this, we are in a position to show that, except we want to claim that determinable properties have no causal powers whatsoever, mental properties can cause physical properties. Yablo illustrates with an example like this: suppose we condition a dove to eat a grain of corn whenever it sees the color red. We show the dove something red, which causes the dove to eat a grain of corn. But remember that being red is itself only a determinable, and so, it requires a determinate property to be instantiated. Let's say that the thing we show to the dove is crimson. If the *exclusion principle* is true and we assume that what causes the dove's eating was its seeing crimson, we can conclude that the determinable property of being red was causally irrelevant to its eating.

However, there are numerous cases in which we would like to say of a given determinable that it caused something. By an application of the exclusion principle in each case, we will end up concluding that only ultimate determinates (properties that have no determinates themselves) are causally relevant.

Yablo takes things even further. He notes that even when some property causes something else, it need not be every aspect of the property that intervenes in the cause. For instance, the property of being crimson has the property of being expressed by 'being crimson', but this is irrelevant to its causing the dove to eat corn. So we can abstract of all the causally irrelevant properties in the ultimate determinate (let's say that, in our example, crimsonness is not itself further determinable) and leave only the properties that are causally relevant. This will give us a new *determinable* which is itself sufficient to cause the dove to eat. But if this is the thing that causes the dove to it, then even the ultimate determinate can't cause the dove to eat. As Yablo puts it: "And now it begins to look as though no property ever makes a causal difference." (p. 183)

Thus, the *exclusion principle* as formulated seems false, but there seems to be some truth to it. Someone may reformulate it as saying that the competing causes have to be separate, but this need not worry us anymore: properties standing in the determinate/determinable relation can hardly count as separate. In particular, properties standing in such relation are not causal competitors with each other. Thus, the *exclusion argument* is neutralized.¹

4 Why mental properties can cause

If Yablo is right, so far he has shown that mental properties can be causally relevant compatibly with the causal sufficiency of their physical bases. But this doesn't show that mental properties actually cause anything. Yablo argues that causes must be commensurate with their effects: they should incorporate a good amount of causally relevant material without incorporating too much that is not causally relevant. He then proposes the following constraints on commensurability:

- Effects are *contingent* on their causes: if x had not occurred, then y would not have occurred either.
- Causes are *adequate* for their effects: if x had not occurred, then *if it had*, y would have occurred as well.
- Causes are *required* for their effects: x is required for y just in case for all $x^- < x$, if x^- had occurred without x , then y would not have occurred.

¹I omit the details of Yablo's discussion about the determinate/determinable relation when it comes to events and particulars, since talk about properties is enough to present his more general point.

- Causes are *enough* for their effects: x is enough for y just in case for all $x^+ > x$, x^+ was not required for y .

When a putative cause satisfies these conditions, it is said to be *proportional* to the effect. Though proportionality may not be a necessary condition for causation, it seems reasonable to prefer the more proportional candidate whenever trying to decide which of two competing things caused a given event.

In most cases in which we would intuitively think that a mental property causes something, the mental property is more proportional than the physical one.