

## **Supervenience? No Chance!**

### **Reply to Menuge**

D. H. MELLOR

Menuge ([3] p. 220) accuses me and Tim Crane ([1] §5) of arguing that what he calls supervenience physicalism (SP),

Given the totality of physical facts, the mental facts *could* not be different than they are [my italics],

is incompatible with psychophysical indeterminism (PI for short), the thesis that some (tokens of) mental properties are linked to their physical causes by indeterministic laws.

We do nothing of the sort. First, the supervenience thesis we discuss in §5 of our paper is not SP but the subjunctive thesis (call it SP\*) that

Things *would* never change or differ in any way without also changing or differing in some non-mental way (p. 100).

SP\* says for example that, whether or not I *could* change mentally without changing physically, I *would* not: i.e. that if not in all then at least in the closest possible worlds in which I change mentally in any way, I also change physically.

Crane and I do indeed use PI to argue against SP\*; but we never said that PI was incompatible with it, or with SP. How could we? For a start, PI is clearly compatible with all mental properties being identical with physical ones, i.e. with psychophysical identity theories which, far from being incompatible with SP and SP\*, actually entail them. PI is also clearly compatible with all mental properties being linked by deterministic laws like Menuge's (L4) to physical properties other than their causes, which would trivially entail their supervenience on those other properties. For obviously, for any F and G, the law that all Fs are G entails that any F's being G supervenes in our sense on its being F, i.e. that if it were not G it would not be F.

However, although Crane and I actually deny none of this, reading §5 of our paper on its own may make us seem to. For we do claim there that PI refutes SP\* – but only on assumptions we thought too obvious to restate, having argued for them earlier while rebutting other physicalist theses. In particular, we argue in §2 against the thesis that psychology reduces to physics in the sense that 'a physics enhanced with suitable bridge principles [i.e. deterministic psychophysical law statements] ... would entail credible approximations of all [psychology's] established laws' (p. 85). To this we object first that psychology does not in fact reduce in this sense to present physics, any more than chemistry or biology (or future physics) does. Then we object that weakening the thesis to 'reducibility in principle' to an unspecified future physics makes it vacuous. For since physicalists use this supposed

reducibility to justify calling chemistry and biology *physical* sciences, it would if true make thoughts and sensations physical in their own right, thus making even Descartes a physicalist.

This is why, to make physicalism at least worth discussing, Crane and I assume in our §5 that psychology does not reduce in the above sense to the physical sciences either in fact or ‘in principle’. We should perhaps have made this clearer – although we do remark at the start of our §5 that the supervenience thesis we will consider there, while ‘stronger than the trivial claim that everything extended in space has physical parts, [is] weaker than reductionism’ (p. 100). But clear or not, this is why we assume in our §5 that not all mental properties are linked to physical ones by deterministic laws. For unless the mental reduces to the physical, there is no reason whatever to believe that all mental properties are so linked.

To deny a wholesale reduction of the mental is not however to deny that deterministic laws often do make mental and physical properties supervene on each other. Of course they do, just as they often make physical properties supervene on each other. Thus the gas laws make a gas’s volume supervene on its temperature and pressure, its pressure on its volume and temperature, and its temperature on its pressure and volume. Similarly, no doubt, other deterministic laws make many of my mental states and brain states supervene on each other, i.e. be such that either would change or differ if the other did. Crane and I never deny these obvious truths, and the only reason we do not state them is that they are equally obviously irrelevant. For what concerns us in our §5 is not whether *some* mental properties supervene on physical ones but whether they *all* do, given that not all of them reduce to physical properties.

This is why Crane and I take it for granted that the mental properties we discuss in our §5 are ones which are *not* made supervenient by laws like Menuge’s (L4). For only of these is it worth asking as we do whether they would all supervene on physical properties if their tokens all had physical causes, which is the only reason we can think of for believing that they would. And what we show is that, given some indeterminism in this causation, they would not. On the contrary, indeterministic causation, far from making such mental effects supervene on their physical causes, or on independent physical side-effects of those causes, positively stops them doing so. Of course we know that this is compatible with other deterministic laws making those mental effects supervene on other physical properties: but we thought (wrongly, as it turns out) that this could go without saying, given our earlier arguments against reduction and hence against such laws existing in every case. And to those arguments our §5 then adds this one: physical indeterminism gives us a positive reason to deny that enough laws like (L4) exist to make all mental properties supervene on physical ones.

Why then, given the endemic indeterminism of modern physics, do its philosophical camp-followers like Menuge continue to believe *a priori* in enough psychophysical determinism to make the mental supervene on the physical? The only reason Menuge gives is that otherwise, ‘when psychophysical causation occurs, there is no deeper, *purely physical* explanation of how this interaction is possible’ (p. 222). But this is no reason at all. For

unless the mental *is* physical, Menuge cannot have what he seems to want, namely purely physical explanations of actual psychophysical interactions: so to assume here that they exist just begs the question. While if he really only wants what he says he wants, namely a purely physical explanation of the *possibility* of psychophysical interactions, all this takes is that physics be *compatible* with them – as of course, if true, it must be, and as indeed it is: no one thinks the non-existence of psychophysical interactions is deducible from anything in pure physics.

But compatibility is not entailment: the laws entailed by psychophysical interactions no more follow from pure physics than their negations do, let alone enough deterministic laws to give Menuge his supervenience. Far from it, as we have seen: physical indeterminism should make any would-be physicalist expect most psychophysical laws to be as indeterministic as, say, the statistical mechanical laws linking the thermodynamically defined temperatures of gases to their microstructure. And just as the latter stop those temperatures supervening on microstructure (contrary to philosophical myth), so the former will stop the mental supervening on the physical. The conclusion of my and Crane's §5 therefore stands, namely that

modern indeterministic physics must predict that some pairs of people, atom-for-atom alike in all non-mental respects, will differ in some simultaneous mental respects: and will do so precisely because the properties involved are causally related. In short, modern physics suggests that even the weakest serious form of supervenience, which is itself the weakest non-vacuous form of physicalism, is false. And physicalists can surely not expect a physicalism that is falsified by physics to be verified by anything else (p. 103).

In other words, to believe in supervenience these days is to believe in miracles. So, as Hume ( [2] , Sect. X, Part II) said of the Christian religion,

upon the whole, we may conclude, that *Physicalism* not only was at first attended with miracles, but even at this day cannot be believed by any reasonable person without one. Mere reason is insufficient to convince us of its veracity: And whoever is moved by *Faith* to assent to it, is conscious of a continued miracle in his own person, which subverts all the principles of his understanding, and gives him a determination to believe what is most contrary to custom and experience.

*Darwin College*  
*Cambridge CB3 9EU*  
*dhm11@phx.cam.ac.uk*

## REFERENCES

- [1] Tim Crane and D. H. Mellor, 'There is No Question of Physicalism', in D. H. Mellor, *Matters of Metaphysics* (Cambridge: Cambridge University Press, 1991) 82–103.
- [2] David Hume, *An Enquiry concerning Human Understanding*, in his *Enquiries concerning the Human Understanding and concerning the Principles of Morals*, edited by L. A. Selby-Bigge (Oxford: Clarendon Press, 1902) 5–165.
- [3] Angus Menuge, 'Supervenience, By Chance? Reply to Crane and Mellor', *Analysis* 53.4 (1993) 220–7.