

THE MIND-BODY PROBLEM

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The mind-body problem is the problem of explaining how our mental states, events and processes—like beliefs, actions and thinking—are related to the physical states, events and processes in our bodies. A question of the form, ‘how is A related to B?’ does not by itself pose a philosophical problem. To pose such a problem, there has to be something about A and B which makes the relation between them seem problematic. Many features of mind and body have been cited as responsible for our sense of the problem. Here I will concentrate on two: the fact that mind and body seem to interact causally, and the distinctive features of consciousness.

A long tradition in philosophy has held, with René Descartes, that the mind must be a non-bodily entity: a soul or mental substance. This thesis is called ‘substance dualism’ (or ‘Cartesian dualism’) because it says that there are two kinds of substance in the world, mental and physical or material. One reason for believing this is the belief that the soul, unlike the body, is immortal. Another reason for believing it is that we have free will, and this seems to require that the mind is a non-physical thing, since all physical things are subject to the laws of nature.

To say that the mind (or soul) is a mental substance is not to say that the mind is made up of some non-physical kind of stuff or material. The use of the term ‘substance’ is rather the traditional philosophical use: a substance is an entity which has properties and persists through change in its properties. A tiger, for instance, is a substance, whereas a hurricane is not. To say that there are mental substances—individual minds or souls—is to say that there are objects which are non-material or non-physical, and these objects can exist independently of physical objects, like a person’s body. These objects, if they exist, are not made of non-physical ‘stuff’: they are not made of ‘stuff’ at all.

But if there are such objects, then how do they interact with physical objects? Our thoughts and other mental states often seem to be caused by events in the world external to our minds, and our thoughts and intentions seem to make our bodies move. A perception of a glass of wine can be caused by the presence of a glass of wine in front of me, and my desire for some wine plus the belief that there is a glass of wine in front of me can cause me to reach towards the glass. But many think that all physical effects are brought about by purely physical causes: physical states of my brain are enough to cause the physical event of my reaching towards the glass. So how can my mental states play any causal role in bringing about my actions?

Some dualists react to this by denying that such psychophysical causation really exists (this view is called 'epiphenomenalism'). Some philosophers have thought that mental states are causally related only to other mental states, and physical states are causally related only to other physical states: the mental and physical realms operate independently. This 'parallelist' view has been unpopular in the 20th century, as have most dualist views. For if we find dualism unsatisfactory, there is another way to answer the question of psychophysical causation: we can say that mental states have effects in the physical world precisely because they are, contrary to appearances, physical states (see Lewis 1966). This is a *monist* view, since it holds that there is *one* kind of substance, physical or material substance. Therefore it is known as 'physicalism' or 'materialism'.

Physicalism comes in many forms. The strongest form is the form just mentioned, which holds that mental *states* or *properties* are identical with physical states or properties. This view, sometimes called the 'type-identity theory', is considered an empirical hypothesis, awaiting confirmation by science. The model for such an identity theory is the identification of properties such as the heat of a gas with the mean kinetic energy of its constituent molecules. Since such an identification is often described as part of the *reduction* of thermodynamics to statistical mechanics, the parallel claim about the mental is often called a 'reductive' theory of mind, or 'reductive physicalism' (see Lewis 1995).

Many philosophers find reductive physicalism an excessively bold empirical speculation. For it seems committed to the implausible claim that all creatures who believe that grass is green have one physical property in common—the property which is identical to the belief that grass is green. For this reason (and others) some physicalists adopt a weaker version of physicalism which does not have this consequence. This version of physicalism holds that all particular objects and events are physical, but allows that there are mental properties which are not identical to physical properties. (Davidson (1970) is one inspiration for such views.) This kind of view, ‘non-reductive physicalism’, is a kind of dualism, since it holds there are two kinds of property, mental and physical. But it is not *substance* dualism, since it holds that all substances are physical substances.

Non-reductive physicalism is also sometimes called a ‘token-identity theory’ since it identifies mental and physical particulars or tokens, and it is invariably supplemented by the claim that mental properties *supervene* on physical properties. Though the notion can be refined in many ways, supervenience is essentially a claim about the dependence of the mental on the physical: there can be no difference in mental facts without a difference in some physical facts (see Kim 1993; Horgan 1995).

If the problem of psychophysical causation was the whole of the mind-body problem, then it might seem that physicalism is a straightforward solution to that problem. If the only question is, ‘how do mental states have effects in the physical world?’, then it seems that the physicalist can answer this by saying that mental states are identical with physical states.

But there is a complication here. For it seems that physicalists can only propose this solution to the problem of psychophysical causation if mental causes are identical with physical causes. Yet if properties or states are causes, as many reductive physicalists assume, then non-reductive physicalists are not entitled to this solution, since they do not identify mental and physical properties. This is the

problem of mental causation for non-reductive physicalists. (See Davidson 1993, Crane 1995, Jackson 1996).

However, even if the physicalist can solve this problem of mental causation, there is a deeper reason why there is more to the mind-body problem than the problem of psychophysical interaction. The reason is that, according to many philosophers, physicalism is not the *solution* to the mind-body problem, but something which gives rise to a version of that problem. They reason as follows: we know enough to know that the world is completely physical. So if the mind exists, it too must be physical. However, it seems hard to understand how certain aspects of mind—notably consciousness—could just be physical features of the brain. How can the complex subjectivity of a conscious experience be produced by the grey matter of the brain? As McGinn (1989) puts it, neurones and synapses seem ‘the wrong kind’ of material to produce consciousness. The problem here is one of intelligibility: we know that the mental is physical, so consciousness must have its origins in the brain; but how can we make sense of this mysterious fact?

Thomas Nagel dramatised this in a famous paper (Nagel 1974). Nagel says that when a creature is conscious, there is something it is *like* to be that creature: there is something it is like to be a bat, but there is nothing it is like to be a stone. The heart of the mind-body problem for Nagel is the apparent fact that we cannot understand *how* consciousness can just be a physical property of the brain, even though we know that in some sense physicalism is true (see also Chalmers 1996).

Some physicalists respond by saying that this problem is illusory: if physicalism *is* true, then consciousness is just a physical property, and it simply begs the question against physicalism to wonder whether this *can* be true (see Lewis 1983). But Nagel’s criticism can be sharpened, as it has been by what Frank Jackson calls the ‘knowledge argument’ (Jackson 1982; see also Robinson 1982). Jackson argues that even if we knew all the physical facts about, say, pain, we would not ipso facto know what it is like to be in pain. Someone omniscient about the physical facts about pain would learn something new when they learn what it is like to be in pain.

Therefore there is some knowledge—knowledge of what it is like—which is not knowledge of any physical fact. So not all facts are physical facts. (For physicalist responses to Jackson's argument see Lewis 1990; Dennett 1991; Churchland 1985.)

In late twentieth century philosophy of mind, discussions of the mind-body problem revolve around the twin poles of the problem of psychophysical causation and the problem of consciousness. And while it is possible to see these as independent problems, there is nonetheless a link between them, which can be expressed as a dilemma: if the mental is not physical, then how we make sense of its causal interaction with the physical? But if it is physical, how can we make sense of the phenomena of consciousness? These two questions, in effect, define the contemporary debate on the mind-body problem.

REFERENCES

- Chalmers, D., 1996, *The Conscious Mind: In Search of a Fundamental Theory*. Oxford: Oxford University Press.
- Churchland, P.M., 1985, 'Reduction, qualia and the direct introspection of brain states.' *Journal of Philosophy* 82: 8-28.
- Crane, T., 1995, 'The mental causation debate.' *Proceedings of the Aristotelian Society, Supplementary Volume* 69: 211-236.
- Davidson, D., 1970, 'Mental events.' In *Experience and Theory*, L. Foster and J. Swanson, eds. London: Duckworth 79-101.
- Davidson, D., 1993, 'Thinking causes.' In *Mental Causation*, J. Heil and A. Mele, eds. Oxford: Oxford University Press, 1-17.
- Dennett, D.C., 1991, *Consciousness Explained*. Harmondsworth: Allen Lane.
- Jackson, F., 1982, 'Epiphenomenal qualia.' *Philosophical Quarterly* 32: 127-136.
- Jackson, F., 1996, 'Mental causation.' *Mind* 105: 377-413.
- Kim, J., 1993, *Supervenience and Mind*. Cambridge: Cambridge University Press.
- Horgan, T., 1993, 'From supervenience to superdupervenience: meeting the demands of a material world.' *Mind* 102: 555-586.

Lewis, D., 1966, 'An argument for the identity theory.' *Journal of Philosophy* 63: 17-25.

Lewis, D., 1983, 'Mad pain and martian pain.' In *Philosophical Papers Volume One*, D. Lewis. Oxford: Oxford University Press, 122-132.

Lewis, D., 1990, 'What experience teaches.' In *Mind and Cognition*, W. Lycan, ed. Oxford: Blackwell, pp. 499-519.

Lewis, D., 1995, 'Reduction of mind.' In *A Companion to the Philosophy of Mind*, S. Guttenplan, ed. Oxford: Blackwell, pp. 412-431.

McGinn, C., 1989, 'Can we solve the mind-body problem?', *Mind* 98: 349-366.

Nagel, T., 1974, 'What is it like to be a bat?' *Philosophical Review* 4: 435-450.

Robinson, H., 1982, *Matter and Sense*. Cambridge: Cambridge University Press.