

Lecture 3: Identity theory and functionalism

Hilary Putnam, 'The Nature of Mental States' in D. Chalmers, ed., *Philosophy of Mind: Classical and Contemporary Readings* (Oxford: OUP, 2002), pp. 73-79.

The mind-body problem

If we assume that there's no symmetrical overdetermination, then if mental events are not physical events and the physical world is causally closed, no mental events can be causes of physical events. A valid argument for an identity theory can now be made as follows:

1. Mental events have physical effects
2. The physical world is causally closed
3. There is no symmetrical overdetermination
4. If 1,2 and 3, then mental events are physical events
- ∴ Mental events are physical events (identity theory)

Identity theory

An identity theory of mental and physical phenomena is the simplest physicalist solution to the problem of mental causation: every mental phenomenon is numerically identical to a physical one. Note, the converse doesn't follow. And note that the identity theorist claims that there are such identities, they need not say what they are. As illustration, take the following (false) identity claims: pain is the firing of C-fibres; thinking about water is having neurons 1021a-1266d become active.

The identity theory comes in two forms, depending on what kind of entities you think the mental phenomena are. If you think they are events (unrepeatable, dated particulars) then you will have an identity between concrete particulars. This is sometimes called a 'token identity theory': it identifies mental and physical particulars. See Davidson, 'Mental Events' (1970).

If on the other hand you think causes are properties or states (general characteristics of things, like weights or colours), then you will have an identity between universals. This is sometimes called a 'type identity theory': it identifies mental and physical properties. See Smart, 'Sensations and Brain Processes' (1959) or Lewis, 'An Argument for the Identity Theory' (1970).

The identity theory does not say there are no mental phenomena. On the contrary, since it makes an identity claim about the mind, it presupposes that the mind exists. Compare: saying 'water = H₂O' does not deny the existence of water; rather it presupposes its existence.

Another way to put this point is to say that the identity theory is a *reductive* view of the mental, not an *eliminative* view. It does not eliminate the mind, it says what the mind really is. Note, however, that this is an *ontological* reduction (all As are Bs). The identity theory is not committed to a *theoretical* reductionism, i.e. that our theory of the mind can be expressed in purely physical terms. (As Smart brings out, the analysis of our mental concepts doesn't support the identity theory.)

The problem of multiple realisability

When physicalism is formulated as an identity theory, it runs into serious trouble. Ned Block:

One way of expressing this point is that [...] physicalism is a *chauvinist* theory: it withholds mental properties from systems that in fact have them. In saying mental states are brain states, for example, physicalists unfairly exclude those poor brainless creatures who non[e]theless have minds. ('Troubles with Functionalism', p. 265)

For example, it is surely possible that there is intelligent extraterrestrial life. It is also surely possible for such aliens to lack neuronal tissue. But if these aliens are intelligent, they must have thoughts. So, if having thoughts is identical to having some neurons become active, then there can be intelligent creatures that are not intelligent. Hence, having thoughts is not identical to having systems of neurons become active.

The problem is general and quite mundane. The brain shows a great deal of 'plasticity': mental functions can be realised by different brain areas. For example, it seems that in many people with congenital blindness the visual cortex processes auditory and tactile information. The objection here is empirical: most identity claims of the sort the identity theory requires turn out to be false.

These arguments suggest that if brain states make mental phenomena possible, then they do so not by being identical to them but by *realising* them. The identity theory cannot accommodate the fact that mental phenomena are multiply realisable.

Functionalism

Functionalism claims that concepts of mental phenomena describe specific functional roles. I know what role pain plays because I know what causes pain, and I know what pain causes. To say that I'm in pain means that I am in the state that fulfils this pain-role. Lewis illustrates this functionalist conception of mental states with a detective story:

X, Y and Z conspired to murder Mr. Body. Seventeen years ago, in the gold fields of Uganda, X was Body's partner... Last week, Y and Z conferred in a bar in Reading... Tuesday night at 11:17, Y went to the attic and set a time bomb... Seventeen minutes later, X met Z in the billiard room and gave him the lead pipe... Just when the bomb went off in the attic, X fired three shots into the study through the French windows...

The detective's theory tells something about X, Y, and Z. Something is X only if it was Body's partner and fired three shots. If the theory is accurate, we know the role X played. We can also say that *there was something* such that it was Body's partner and fired three shots. And if we find out that this is Plum, then we can say that Plum 'realises' a functional role in the detective's theory.

(The strategy here is often called 'Ramsification', after Frank Ramsey, and it can be generally used to give the meaning of theoretical terms. Notice, Lewis's functionalism seems to imply that our grasp of mental concepts presupposes a grasp of a theory of mind.)

The states of your brain can be said to realise the pain you feel or the thoughts you have. To be in a mental state is to be in a specific *functional* state, i.e. to be such that certain functional descriptions are true of you. And such descriptions can be true of you regardless of what realises the functional state. For example, when the alien is thinking, some state of their body (if they have one!) must realise their thoughts. Nothing seems to follow about the nature of that state. All we know is that it is the state that plays the thinking role in the alien's overall mental and physical behaviour.

Physicalism without identity

Functionalism denies that mental states are identical to physical states. Is functionalism then incompatible with physicalism? The answer depends on what we mean by 'physicalism'. If physicalism implies that mental states are identical to physical states, then functionalism is incompatible with it. But there is a weaker version of physicalism that is still anti-dualist.

This weaker version of physicalism says that everything is determined by the physical. In the now popular formulation developed by David Lewis and Frank Jackson: any world which is a minimal physical duplicate of this world is a duplicate in every respect ('a duplicate *simpliciter*').

Suppose an omnipotent being wanted to create this world, just as it is; what would she have to do? The physicalist can say: all she would have to do would be to create the world's physical nature. Everything else would come for free.

Although this form of physicalism assumes that the determination of the mental by the physical is necessary (i.e. true of all worlds), it is nonetheless a contingent thesis about the relation between the mental and the physical. It claims that in our world the mental is determined by the physical.

Contrast this with an even stronger view which says: Any two possible worlds which are physically identical are identical *simpliciter*. This would not allow 'dualist' possible worlds, where there are extra mental things undetermined by the physical things. Yet a physicalist need not maintain more than that dualism is contingently false.

Physicalism makes reference to the actual world: it's a fact about our world that given the way things are physically, things could not be otherwise in any other respect. This way of expressing physicalism is neutral on whether physicalism is a reductive thesis. What matters is that fixing the physical fixes everything, not that all entities are identical with physical entities.