

## **Substance dualism: can mind and body interact?<sup>1</sup>**

Substance dualism claims that both minds and bodies - physical objects - exist. It is common in contemporary philosophy of mind to assume that bodies exist, and we shall share that assumption. Substance dualism is controversial, therefore, in claiming that the mind is an ontologically distinct substance.

Substance dualism holds that there are two fundamentally different types of substances. In traditional dualism, these two types of substances are physical substances ('bodies', physical objects) and mental substances (minds). Minds are distinct from bodies - they are not bodies, they are not parts of bodies, and because they are substances, they are not properties of bodies either. Cartesian dualism - the form of substance dualism defended by Descartes - also claims that minds do not depend on bodies in order to exist, i.e. minds can exist separated from any body. People who believe that the mind is the soul, and the soul can continue to exist without a body after death, are usually substance dualists.

Descartes claimed that mind and body causally interact with one another. Walking, talking and other bodily movements, are caused by thoughts, decisions and feelings, and we feel pain from physical causes and acquire beliefs from our sense experience. Cartesian substance dualism is most often rejected because it cannot give an adequate account of the causal role of the mind. The objection focuses on explain the causation of physical events by mental events.

### **THE CONCEPTUAL INTERACTION PROBLEM**

Nothing seems more obvious than that the mind and the body interact with each other, e.g. I decide to phone a friend and move my body to do so. But how is it that a mental substance, which is not in space and has no physical force, can affect a physical substance, which is in space and moved by physical forces? This puzzle was expressed to Descartes by Elisabeth, Princess of Bohemia. In a letter to Descartes in May 1643, she posed this objection in terms of pushing and movement.

- P1. Physical things only move if they are pushed.
- P2. Only something that is extended and can touch the thing that is moved can exert such a force.
- P3. But the mind has no extension, so it can't touch the body.
- C1. Therefore, the mind cannot move the body.

In fact, as Descartes points out in his reply (letter of 21 May 1643), this isn't an accurate understanding of how things are moved. For example, we might explain

---

<sup>1</sup> This handout is based on material from Lacewing, M. (2017) *Philosophy for A Level: Metaphysics of God and Metaphysics of Mind* (London: Routledge), Ch. 3, pp. 194-99

why something falls in terms of its weight. But weight doesn't 'push' the object whose weight it is! Weight is the result of the force of gravity on the mass of an object, and gravity is a force of attraction that operates without needing contact between the two physical objects.

But this is all a matter of details. We can generalise from the force of pushing to force more generally. If the mind is just thought, it has no physical force of any kind. In that case, how could it possibly affect the body? (The mind is not very insubstantial matter; we can understand how something very refined, like a gas, can have causal effects.) And the mind is not in space at all. If causation is thought to involve any kind of spatial relationship between cause and effect, the problem is particularly pressing. Clearly nothing can come into a spatial relationship with a mind which occupies no space.

- P1. The movement of a physical object is only initiated by some physical force, exerted at some point in space.
- P2. If dualism is true, then the mind is not in space and cannot exert any physical force.
- C1. Therefore, if dualism is true, the mind cannot cause any physical object to move.
- C2. Therefore, either dualism is false or the mind cannot cause (any part of) the body to move.

In a later letter (1 July 1643), Elisabeth says that she accepts, from her own experience, that the mind does cause the body to move. The problem is that experience gives us no indication of how this happens. She continues, 'This leads me to think that the soul has properties that we don't know - which might overturn your doctrine ... that the soul is not extended .... Although extension is not necessary to thought, it isn't inconsistent with it either'. So, we can continue the argument:

- P3. The mind can cause the body to move.
- C3. Therefore, dualism is false.

But perhaps it is a mistake to try to understand the mind's power to act on physical objects in terms of how physical objects act on each other. We have a tendency to conceive of all causation in terms of the causation of physical events by other physical events. But perhaps this is mistaken.

Then how should we think about mental causation? Certainly, we can reflect on the fact that we can move our bodies at will. But as Elisabeth points out, the question remains how, according to dualism, this is possible.

The challenge is just as daunting when thinking about how physical objects could cause changes in the mind. How can something which is not thought or consciousness bring about changes in a substance that is entirely thought and consciousness? Physical causation operates, as we said, through the exertion of forces at particular points in space. But it seems impossible to exert a physical force on a mental substance which has no spatial location.

## THE EMPIRICAL INTERACTION PROBLEM

Interactionist substance dualism also faces some empirical challenges. The first is very general. The law of the conservation of energy states that in any closed system, the total amount of energy in that system remains unchanged. The energy can only change forms, e.g. movement can produce heat. A 'closed system' is simply one that doesn't interact with anything outside itself. The universe is usually understood as a closed system, because there is nothing 'outside' the universe that it can interact with. So the total amount of energy in the universe can't change. If something in the universe, such as your body, moved without that energy coming from some other physical source, the law of the conservation of energy would not be true of the universe. So:

- P1. If the mind, as a non-physical substance, moved the body, the total amount of energy in the universe would increase.
- P2. If the total amount of energy in the universe increased, the law of the conservation of energy would not apply to the universe, and the universe is not a closed system.
- C1. Therefore, if the mind moved the body, the law of the conservation of energy would not apply to the universe, and the universe is not a closed system.
- C2. Therefore, because the mind, which changes the physical energy in the universe, is not itself physical, physics cannot give us the complete, correct account of physical energy in the universe.

While we may want to say that physics doesn't tell us everything about what exists, interactionist dualism entails that physics isn't even the correct account of what exists physically. We can make this more specific to link it to the conceptual issues above: physics is wrong to think that physical movement can only be caused by a physical force.

The second empirical challenge is much more specific. Current science indicates that movements of the body are caused by physical events in the brain. So, if the mind moves the body, it does so by changing what happens in the brain. We may object that we have no evidence of the mind changing what happens in the brain.

That is true, but we have no evidence that the claim is false either. This is because, while neuroscience is making good progress, we still have no clear account of the very complicated causation involved in something like making a choice. But we may think that neuroscience could discover the complete story in time. If interactionist dualism is true, then it seems that what it must discover is that some events in the brain have no physical cause, because they are caused by the mind.

It is common, but perhaps a mistake, to think that there is empirical evidence against substance dualism. The issues are so complex - how does the brain work? Is the universe a closed system? - that we don't yet have definitive evidence one way or another. So both the objections presented focus instead on the incompatibility between interactionist dualism and empirical science.

## **EPIPHENOMENALIST SUBSTANCE DUALISM**

We could accept that the objections above show that, if substance dualism is true, then mental causation is impossible. But this doesn't undermine substance dualism if we accept epiphenomenalism, the view that the mind has no causal powers. (An 'epiphenomenon' is a by-product, something that is an effect of some process, but with no causal influence.) On this view, the mind does not cause any physical events, so there is no problem of how they do so. But nor do mental events cause other mental events. (For example, the theory of 'occasionalism' claimed that nothing has causal powers except God. Whenever it seems like a thought causes me to say something, or a desire causes me to act, what actually happens is that God brings about the effect - my having the thought or the desire is merely the 'occasion' for God's action.)

While it is more common for property dualists than substance dualists to be epiphenomenalists, it is worth briefly considering two objections that can be raised against epiphenomenalist theories at this point.

The first is that epiphenomenalism simply doesn't accord with our experience. Surely we experience causal connections between our mental states, and between our mental states and our behaviour. It is part of my experience that whether I feel pain makes a difference both to what I think (e.g. that I'm in pain) and to what I do (e.g. jump around shouting). Similarly, when I say what I think, it is part of my experience that my thought is the cause of what I say. It is part of the 'phenomenology of our mental life' that we interact with the physical world outside us, that mental processes unfold over time, that our thoughts, feelings, etc. respond to one another and have effects. Epiphenomenalism has to argue that my experience is completely misleading in this respect, because there are no causal connections between my pain, thoughts, and other mental states or events and anything that follows them.

Second, epiphenomenalism makes it hard to understand how we have knowledge of our own mental states. How do I know that I am in pain when I am? The obvious answer is that my belief that I am in pain is caused by my pain itself. I can tell that I am in pain just from introspection. But if epiphenomenalism is true, pain doesn't cause anything, even my belief that I am in pain. This threatens a natural account of our knowledge of our mental states. If my thoughts and feelings don't cause my beliefs about my mind, then I could have those beliefs whatever my mental states, just as long as the causes of my beliefs (whatever they are - perhaps brain processes, perhaps God) operate in the same way. In other words, whatever causes me to believe that I am in pain could cause me to have this belief even when I am not in pain. And so my beliefs about my mind, therefore, are unjustified and unreliable. So I can't know my own mind.