

## Forward

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I won't try and summarise the debate between Amy Kind and Daniel Stoljar. They each do an outstanding job of telling us what they believe about consciousness, why they believe it, how their views relate to those to be found in the extensive literature on consciousness, and why they disagree with each other. What I will do is try and give a sense of what the debate is about and the nature of a key disagreement between them.

What happens when you stub your toe? One kind of answer requires no knowledge of the physical sciences, of, that is to say, physics, chemistry, neuroscience, biology, etc. It is the kind of answer that people could have given in the Middle Ages, before the rise of modern science. It talks of the feeling of pain in one's toe, exactly where the pain is felt and whether or not it is throbbing, of a desire that the feeling cease, of one's tendency to nurse one's toe, and so on. Let's call it, the folk answer or account of what happens. It is the answer we can give simply by virtue of having sometimes stubbed our toe and having suitable words in a natural language, English as we will suppose. No recourse to anything we learn when we study one or another of the physical sciences is needed. Another kind of answer draws on what we learn from those sciences. It talks of how the brain responds to bodily damage in one's toe, of how certain nerve pathways enable this response and the electrical and chemical processes that go on in these pathways, of how the brain's response causes movements that lead to limb withdrawal, and so on. Let's call this answer, the physical answer or account of what happens. In much the same way, we can contrast the folk answer to what happens when we look at ripe lemons with the physical answer. The first will talk of the distinctive look that ripe lemons have that differentiates them from, for example, ripe tomatoes and the sky, how seeing something as yellow is different from seeing it as green or as red, how something's looking yellow makes it stand out from dark surroundings, and so on. The physical answer will talk about wavelengths of reflected light, the way these wavelengths are processed by our visual systems and, in turn, our brains, of the differences between the wavelengths of the light reflected from ripe lemons as opposed to ripe tomatoes, and so on.

I insist – and here I am in full agreement with Kind and Stoljar – that both answers are correct. The issue on the table is whether or not the physical answer, when filled out in suitable detail and modified in the light of advances in the physical sciences – what's above is simply a sketch to remind the reader of the kind of answer we are talking about – in some

sense subsumes the folk answer, as physicalists (materialists) maintain. Of course, the two answers are framed in different terms or vocabularies, but maybe the different terms in the physical answer are different ways of talking about the very same properties and states that figure in the folk answer. For we know that this kind of thing can happen. One answer about the nature of a gas is framed in terms of temperature, pressure and volume. This is the kind of answer we are familiar with from weather forecasts and what happens when we pump up a bike tyre, for example. Another kind of answer is framed in terms of the motion properties of the atoms and molecules that make up the gas. This is the answer that explains temperature, for example, in terms of mean molecular kinetic energy. The famous reduction of the thermodynamic theory of gases (the theory framed in terms of temperature, pressure and volume) to the molecular kinetic theory (the theory framed in terms of the motion properties of the molecules that make up a gas and their causal powers) means that the latter subsumes the former. The view of those philosophers of mind who embrace physicalism is that the relation between the folk account of what happens when we stub our toes or look at ripe lemons and the physical account is another example where an account in one set of terms subsumes the account in a different set of terms. In particular, the properties and states that appear in the folk account of mental states like pain and having something look yellow are one and the same as those that appear in the account offered by the physical sciences. Physicalists of course allow, as they must, that there are many details in the physical account that need further investigation, but when that has happened, we will, they urge, have two different ways of talking about the very same phenomena. Despite their differences, Kind and Stoljar agree that this would be the wrong way to think of the relationship between the folk and the physical accounts. They agree that the physical account does not subsume the folk answer, but they think this for very different reasons.

Some of the mental states that figure in the folk answer – examples are being in pain, something's looking yellow to one, hearing the rumble of approaching thunder, and feeling a spider crawling up one's leg – have a distinctive phenomenology. They are among the states that philosophers often refer to as those for which there is something it is like to be in them. The contrast is with believing that it rained some time in the past, a mental state we are all in but one which lacks a distinctive feel. Kind holds that certain properties of the 'what it is like' mental states, the properties that give them their distinctive feel or phenomenology, are absent from the physical account. She is influenced by many considerations in holding this, but two are prominent, one modal and one epistemic. The modal consideration is that a person's physical nature – everything about them that appears in the physical answer – does

not necessitate that they are conscious in the sense of having states with a phenomenology, that they itch, feel pain, have things look yellow to them and so on. For it is possible for a creature to be exactly like me in all physical respects and yet feel nothing, that he be, as philosophers often put it, a zombie. But this means that my physical nature is distinct from my phenomenal conscious nature: I share the first with the zombie but not the second. Here the example of the reduction of the thermodynamic theory of gases to the molecular kinetic theory is instructive. Two gases being exactly alike in molecular kinetic terms and their attendant causal roles necessitates their being exactly alike in thermodynamic terms. It is not possible for two gases to be alike in the molecular kinetic terms and their attendant roles, and one be a 'zombie' gas, a gas that has, for example, no temperature.

The epistemic consideration is that full knowledge of physical nature, including the physical nature of surroundings, does not enable one to deduce the nature of conscious, 'what it is like', mental states. Someone – often called 'Mary' – confined from birth to a black and white room, dressed in black and white clothes, with skin painted white and white, etc. might, as a result of a wonderful library of black and white books in her room and lectures on the black and white television in her room, know everything there is to know about the physical nature of each of us and of the world we occupy. In particular, she might know which wavelengths trigger the word 'green' in the mouths of those English speakers she observes on her black and white television, and the processes in their brains that are involved. Nevertheless, she would not know, it seems, what it is like to have something look green. Or consider people who are profoundly deaf. They might be – for all I know, some in fact are – experts on hearing in the sense that they know everything there is to know about how the brains of people who are not deaf process the physical nature of incoming sound waves and use that nature to, for example, turn their heads towards the source of a sound or utter a sentence like 'That's middle C'. All the same, it seems that these profoundly deaf people will not know what it is like to hear middle C or to hear thunder approaching. The phenomenological side of hearing is hidden from them. Again, the example of the reduction of the thermodynamic theory of gases to the molecular kinetic theory is instructive. It is plausible that enough information about the energy and motion properties of the atoms and molecules that make up a gas do allow one to deduce its temperature, volume and pressure.

Of course, physicalists resist these arguments. Some deny the modal and epistemic claims the arguments use as premises. They may grant (as they should) the intuitive appeal of the claim that a zombie physical duplicate of me is possible, but insist that, when one looks at the matter more closely, one can see that a zombie physical duplicate of me is not in fact

possible. Any physical duplicate of me *must* feel pain when they stub their toe, have things look green to them on occasion, and so on. Likewise, they insist that Mary can know what it is like to see something as being green, and that the profoundly deaf experts on neuroscience can know what it is like to hear thunder approaching, despite granting the intuitive appeal of the claim that she and they cannot. Others grant the modal and epistemic claims – the validity of the intuitions – but deny that they support anti-physicalist conclusions. Kind tells us why she is unmoved by these replies.

Stoljar's reason for holding that the physical answer does not subsume the folk answer is, as I said, very different from Kind's. We talk above of the physical account as drawing on what we learn from physics, chemistry, biology etc., but maybe, suggests Stoljar (in much good company), what we learn from these sciences is seriously incomplete, not merely incomplete in one or another detail (something we can all agree about). One reason – there are others – for holding this draws on the fact that the account of what we and our world are like that comes from the physical sciences goes back, in one way or another, to interactions between the world and various measuring devices. Now it is reasonable to think that these interactions tell us a lot. We are not flirting with scepticism. But it is also reasonable to think that there might be a lot that they do not tell us, and accordingly that there are many more properties than appear in the accounts these sciences give of what our world is like. This is what Stoljar holds. We might reasonably call these properties physical. This is because the reason for believing in them does not come from considerations special to the topic of consciousness. The reason just sketched for believing in these extra properties made no mention of what it is like to feel pain or to hear thunder approaching, and the same is true for many of the other reasons that have been given for holding that the picture the physical sciences give of what our world is like is seriously incomplete. Now we have a pressing question. What happens to the debate over consciousness when we factor in the idea that there exist the extra properties that Stoljar, and others, believe in, the properties that are left out of the accounts of what our world is like that we find in the physical sciences but are physical properties in the sense of not being special to conscious mental states, the mental states with a phenomenology?

Stoljar's thesis is that the debate over consciousness gets transformed in ways that allow one to avoid the problems he finds in the kind of dualism Kind favours and to be a sort of physicalist, a non-traditional sort. He points out, for example, that the modal argument against physicalism sketched above rests on the intuition that a physical duplicate of me that lacks consciousness, a zombie me, is possible. That intuition is, however, one about a

physical duplicate of me in the sense of physical tied to the physical sciences. It is accordingly arguably irrelevant to the question of whether or not consciousness can be accounted for in physical terms in the wider sense of physical. Likewise, the epistemic argument against physicalism sketched above rests on the intuition that Mary's full physical knowledge does not allow her to infer what it is like to see something as green. But that intuition is one about what she can infer from full knowledge of the physical in the sense of physical tied to the physical sciences. It is accordingly arguably irrelevant to whether or not consciousness can be accounted for in physical terms in the wider sense of physical. We could make the same point about the example of profoundly deaf experts in neuroscience, who do not know what it is like to hear thunder approaching. Their expertise is in physical properties in the narrow sense tied to the physical sciences.

What then do Kind and Stoljar disagree about? Many things, obviously, and it would be foolish of me to offer a summary of their differences when you have, in the pages that follow, chapter and verse. But I hope I have said enough to allow us to identify one key difference. Kind can, and I take it does, agree with Stoljar that considerations that have nothing especially to do with consciousness tell us that there are more properties than those that figure in the physical sciences. The key difference between them is over whether or not these additional properties can give an account of consciousness. If you think that they can, you can be a physicalist about consciousness – a non-traditional, Stoljar kind. If you think that they cannot, that the properties we need to explain consciousness are ones tied to consciousness as such, you are in Kind's camp.

Enough from me, you have a treat in store.