Okay, so we move away from dualism. Where are we left? What can we have? Well, interactionism tells us that mind and body interact in a pretty common-sense way: mind can causally influence the body, body can causally influence the mind. Epiphenomenalism, Some people are driven to that by trying to make sense of all this. They say that the mind is just an epiphenomenon. It doesn't actually have any causal effect on the body. It's just a sort of irrelevant spin-off. The body works away, it does its stuff. The mind floats above it, as it were. We feel these things, we think these things, but actually everything is determined by the body. Physicalism, the theory that all there is is physical stuff. There's nothing to the mind beyond the physical brain. It's important to know these terms like epiphenomenalism. You find them bandied around a lot in the literature. Another view is property dualism, and this can be combined with some of those others. And there's a famous argument for this known as the knowledge argument of Frank Jackson. Imagine a scientist that's called Mary who learns all the physical facts about color and color perception, but who for some reason cannot see color. She's only got rods in her eyes, no cones or something like that. So no color perception at all. But, rather peculiarly, she has devoted her life to investigating color. She knows all the facts that are about color. Then, wonderfully, she's given normal sight by whatever means: some new operation. And suddenly, she can actually see color as well. She learns what colors look like. And it looks, doesn't it, as though she has learned something new, something she did not know before. She now knows how colors look. So, it's tempting to say from this sort of argument that since she knew all the physical facts before, she'd studied color science, she knew all the physical stuff. The new thing that she learns, how colors look, that must be something non-physical. So, this can seem like an argument that forces you, maybe not into substance dualism, not into saying that mind and body are distinct substances, but at any rate to saying that there are quite distinct properties: physical properties, mental properties. But hang on a minute, what do we mean? You don't have this sheet, by the way. You'll be getting these next six slides next time with the ones on knowledge. What do we mean by physical stuff? What do we mean by physical properties? This is actually a really big problem these days. Back in the 17th and 18th centuries, everybody knew what a physical cause was. You know, physical stuff is just extended inert stuff like billiard balls or stones. It just bashes into each other, does whatever it does: brute physical matter. But nowadays, quantum scientists don't have brute physical matter like that. They've got exotic stuff with all sorts of weird properties: charge, spin, charm, strangeness. The further they dig into the properties of the physical world, the weirder it comes. So, what do we mean when we talk about a physical property? We don't mean, assuredly, what they meant in the 17th and 18th centuries. So, let's suppose that our scientists came up with an explanation of consciousness that implied that even minute parts of matter have some kind of proto-consciousness, something from which our consciousness came through evolution. Would that then make consciousness a physical property? Very weird. Very strange to speculate like this. But the point is to highlight that we don't actually have nearly as clear a concept of what a physical property is as we might wish. Sure, physicalists don't like that kind of thing. It seems spooky. But it won't matter if we have these kind of ghosts-like consciousness, sure. But maybe that's just a prejudice. Maybe in a hundred years' time, the science that comes out will seem as weird to people now as quantum mechanics does now to people of a couple of hundred years ago. Now, without pursuing those sorts of spooky lines of inquiry, it's also worth bearing in mind that we need to get much clearer on what we mean by explanation and to be aware that you can have more than one kind of explanation. Here's an example: Suppose I type in 11 times 12 equals on my calculator and it comes out with 132. Why? Why does it do that? Well, it's purely a physical object, right? My calculator's not thinking. But if I want to explain why it does what it does, why it shows 132, actually the explanation is not a physical explanation. You can give a physical explanation for why my calculator faithfully reproduces mathematical facts, but the explanation as to why it comes up with that particular answer is a mathematical explanation, not a physical one. Like if you're playing a chess computer, the reason why it moves its knight to bishop three or whatever might be because that's the only move to guard against checkmate. The illuminating explanation of why it behaves as it does is not given in physical terms, even if it's a physical object. Now, it's rather tempting to see the relation between brain and mind as analogous to that between hardware and software. Think about that chess computer and think about the fact that our explanation of our behavior in mental terms is bound to be very different from a physical explanation. That being so, just like the chess computer, there may be no need to hypothesize some spooky substance, some immaterial substance. It might be simply that the way our bodies are put together is such that the best explanation of how we behave is to be given in intentional terms, not in physical terms. As I say, in the case of the computer, there's nothing weird or strange about it. Now, if the mind is something like the software of the body, something like a bodily process rather than a separate substance, that does make it distinct from the mind, but not a distinct "stuff". And this brings us to a very famous contribution of Gilbert Ryle. He imagines a visitor to Oxford who says, 'T've seen all these colleges, all these offices. Where's the university?" And that's because they're going wrong. Because they think the university is something separate from all the colleges and offices. It isn't. Now, maybe the same thing is going on when people talk about minds. They see the body, they see the body's behavior, and then say, "Yes, where's the mind?" Maybe the mind just is having a body that behaves in an appropriate way. The many minds problem. I've put that slide in just because you will come across it in the reading that you do on this topic. Another strange consequence of thinking of the mind as a separate substance from the body is that it raises the apparently absurd worry that you might have more than one mind associated with the same body. But I want to end by mentioning the hard problem, as it is known. Now suppose you accept what I've been saying about how the arguments for a separate substance don't seem to be very good. There seem to be all sorts of problems with thinking of mind as a separate substance. On the other hand, when we think of the behavior of computers, we can see that we have to draw a distinction between the physical object and the explanation of its behavior. We can see that the explanation of how an object behaves might need to be put in non-physical terms in order to be illuminating. And the same clearly applies to us. We have evolved as purposive animals. The way we behave is often best explained in terms of those purposes, not directly in physical terms. But still, there's a problem, isn't there? Suppose I look at that light. I'm aware of it. Something is going on there. I feel that everything physical couldn't be going on in my head just as it is. Now, with all the same causal laws. And yet, it not to be accompanied by that awareness that I have of that light, the phenomenal quality of it. Or, I hit myself on the desk here and I feel a bit of pain. Why can't the physical things go on exactly as they are without that feel? And that, I think, remains the core of the problem of mind and body, consciousness. We feel that we are directly aware of something substantial, there, maybe not in the sense of a separate substance, but a real phenomenon that is not just a matter of physical behavior. And I think that feeling, whether justified or not, lies behind the continuing puzzlement that philosophers do feel about this problem. I've sketched some of the approaches to that. Some of the ways in which Cartesian dualism certainly doesn't seem to be an adequate solution to it. But this is definitely a problem that is going to run and run for some time yet. Thank you.