

So, what is the distinction between primary and secondary qualities? It is not, as Berkeley and Hume thought, that primary qualities are in objects and secondary qualities aren't. That's not the distinction. It's rather that the ideas of primary qualities are resemblances of them, and their patterns do really exist in the bodies themselves. But the ideas produced in us by these secondary qualities have no resemblance to them at all. There is nothing like our ideas existing in the bodies themselves.

So when I say that something, a round yellow thing, is round, I'm attributing a property to it which resembles my idea. The roundness of the object and the roundness, as it were, as perceived by me, are supposed to resemble. Whereas the yellowness of the object is not a resemblance of my idea at all. My idea of yellow, the phenomenal character of it, the yellowness that I see, is completely different from whatever it is in the object that causes that idea. Yellowness in the object is a matter we speculate of the microstructure, the surface texture, the corpuscles, the shape of the corpuscles, how they're arranged, the way that light reflects off them, and so forth. And it's resemblance, rather than presence, in the object that distinguishes primary and secondary qualities.

Okay, now Berkeley famously attacks Locke on this, as on many other things. And Berkeley wants to say that an idea cannot resemble an object. An idea can be like nothing but an idea. A color or figure can be like nothing but another color or figure. So he attacks Locke's claim concerning resemblance. He wants to say that ideas are, as it were, intrinsically perceivable. There's something about them which just in their very nature has to be perceived. Now I think this is very plausible with secondary qualities. Suppose, for example, you imagine the smell of lavender. Can you imagine that I've got some lavender essence and I sprinkle it around the lecture theater and you sniff it, get that smell, that smell of lavender, right? Could that smell exist outside of mind? I don't mean the substance that causes the smell, I mean the smell itself. That could that exist outside of mind? No. Surely not. If nobody existed, if there were none of us, there were no people to have that smell or no animals to have that smell, then the smell would not exist, even if the substance did. It is plausible to say that nothing physical can be like a smell. A smell is just intrinsically something which has to be in a mind, has to be perceived in order to exist. That's a very plausible claim.

Okay, now think about a color. Think about the yellowness of that light. And I don't mean whatever it is that causes the yellow. Now I mean the perceived yellowness, the phenomenal idea that you get. Think of the difference between yellow and red or blue, or whatever. It feels different to us, it looks different. Can that look exist outside of mind? Plausibly not. Plausibly, the look, the phenomenal look, what it is like to see it, can only exist by someone actually seeing it. Just as the smell can only exist by someone actually smelling it.

So, if you think of things in that way, Berkeley's principle that for ideas, their being is their being perceived seems very plausible. But what about primary qualities? We think, well, the roundness of the light, what's that? Not the same? Okay, I look at the light and I see it as round, and I don't feel anything like the same reluctance to say that a real object can be round. The roundness is not something that can only exist by being perceived. At least, that is our natural inclination to say. And Berkeley wants to argue against that. And in the case of primary qualities, you can see he's got much more of an uphill battle arguing the point. It doesn't seem that ideas of primary qualities have quite the same intimate connection with being perceived, with mentality. And part of the reason is that they're more abstract and structural. We can use the

abstract mathematical properties of shapes to think about them in a way that seems to correspond with the real world. I'm given, I'll give an example. Imagine that you have a rectangle. Okay, now imagine a diagonal line drawn from the bottom left corner of the rectangle to the top right corner of the rectangle. Now imagine a vertical line bisecting the rectangle. So it goes from the middle of the top to the middle of the bottom. From the point where those two lines meet, imagine a horizontal line being drawn to the right. Where does it cross the boundary of the rectangle? And you will all say, well, halfway up the right-hand side. And you'd be right, or at least I hope so. Now we can do that sort of imagining. We can imagine an idea, and we think actually correctly, that if we were to do that with physical objects and so on, everything would work out. We would find that the kind of thinking we're doing, the structural thinking we're doing, does seem to match up with physical objects in the world. And that goes together with the fact that attributing to objects properties that are structurally similar to our mental picture of them does actually work. Which makes it quite plausible that the objects themselves, though perhaps in many ways very, very different from our conception of them, nevertheless have a sort of structural isomorphism, a similar structure to the way we conceive of them, at least in respect of their shape, size, and so forth. If you want to read more on this, Jonathan Lowe's book, "Unlocking the Room," discusses these sorts of issues at the pages I've referred to there.

Okay, so we can make some sense of primary qualities in general, like shape and size and motion resembling somehow our ideas of them. It seems, at any rate, to make a lot more sense than the thought of primary qualities resembling a smell or a color. But solidity seems to be a bit of an odd man out here. Okay, so we've got a nice divide between primary qualities and secondary qualities. We've got secondary qualities that seem to be intimately connected with perception. We've got primary qualities, which seem to be more abstract and structural. And we seem to be able to make some sense, at least, of our ideas of primary qualities resembling primary qualities in the objects themselves. But solidity... does my idea of solidity resemble solidity in the object itself? Can I make any sense of that? That's not so clear. How do I get my idea of solidity? Well, I get it by kind of pushing against things or seeing one thing bash into another and knock it out of the way. It looks like my only idea of solidity comes from seeing things behave in a particular way. I don't seem to have any intrinsic idea of solidity, in the way that I might do of a shape or a movement. So when we say that objects are solid, it's not clear that we really understand, in any intimate way, what we're saying. My solidity seems to be a power, a disposition, a way of behaving. It's the power to exclude other bodies. So what's a body, then? Well, a body is something solid. But if we can't understand solidity except as a power to exclude other solid bodies, it looks like we're just going in a circle. So here is David Hume attacking on precisely this line: "Two non-entities cannot exclude each other from their places. Now, I ask, what idea do we form of these bodies or objects to which we suppose solidity to belong? To say that we conceive them merely as solid is to run on in infinitum. Extension must necessarily be considered either as colored, which is a false idea because it's a secondary quality which we're supposing not to be an object, or as solid, which brings us back to the first question. Hence, after the exclusion of colors and so forth from the rank of external existences, there remains nothing which can afford us a just and consistent idea of body." So what Hume is saying here is that the particular idea of solidity is highly problematic. It doesn't seem to fit into the category of ideas which we can coherently form as somehow representing an idea of object as resembling the way we conceive of them. And if you try to get an adequate conception of solidity, you fail. You have to think of a body as excluding other bodies, but the only sense you can form of that is either to think of a body as a colored expanse or to think of it as a solid expanse. The latter just gives you circularity, the former brings you back to secondary qualities.