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OXFORD

# BERKELEY'S WHAT DOES EXPERIENCE TEACH US? PUZZLE

John Campbell and Quassim Cassam



## Berkeley's Puzzle







# Berkeley's Puzzle

*What Does Experience Teach Us?*

John Campbell  
and Quassim Cassam

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# Preface

The discussions that led to this book began when we were both graduate students, and they have taken many forms: sometimes published exchanges, more often comments on one another's talks, or hasty lunches at the Duke of Cambridge. Although we have both changed our minds many times we seem somehow never to have quite agreed. But it eventually seemed that the issues we were discussing had reached a fairly sharp form, and that it was time to give a full statement of where we were.

We have had a lot of help in preparing this book. Campbell's contribution was tried out in a series of graduate seminars at Berkeley, with wonderfully incisive comments from many graduate students, too many to be usefully listed by name, though they include Christopher Allen, Austin Andrews, Adam Bradley, Sophia Dandelet, Peter Epstein, James Hutchinson, Jackson Kernion, Antonia Peacocke, Janum Sethi, and Umrao Sethi. Discussions with Geoff Lee and Mike Martin were extremely helpful. Imogen Dickie gave an insightful, detailed set of comments on Campbell's first three chapters. Barry Stroud commented on all of Campbell's chapters and made a most helpful set of remarks at an APA symposium on the draft book. Despite, or because of, his strong disagreements, John Searle, with Klaus Strelau, provided time in his seminar for discussion of our approaches.

Cassam's contribution has benefited from discussions with friends and colleagues at Warwick. Early feedback from a discussion group run by Naomi Eilan was especially helpful. We had three readers from OUP: one anonymous, the others Michael Ayers and Howard Robinson, who provided trenchant critiques of our early draft.







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# 1

## The Historical Background

*John Campbell*

### 1. Berkeley's Puzzle

We ordinarily think that the world around us is independent of our minds. There are many things that existed long before we did—rivers and rocks and mountains and so on. More poignantly, it seems entirely possible that the rocks and mountains may last longer than the human species. The rocks and mountains are independent of us. They would have existed even if humans had never existed.

Berkeley's Puzzle is a problem about how we can so much as come to think about mind-independent objects, like rocks and mountains, in the first place. The Puzzle depends on two ideas. They are not difficult to articulate or understand. And they each seem sensible enough. Many philosophers working today would accept one or the other or both.

- (1) It is because of sensory experience that we have knowledge of our surroundings. For example, it is in virtue of your visual experience of what is in front of you at the moment that you know what is there. Sensory experience is the foundation of both our knowledge that things are thus and so, and our knowledge of what things and properties are there in our environment.
- (2) If we ask what sensory experience can contribute to our knowledge, the only answer is that it contributes knowledge of sensory experience itself. Consider the possibility of someone who does not have sensory experience of some aspect of the world. (Perhaps they have some theoretical, or implicit, knowledge of it.) What does this person learn when they now experience that aspect of things? The compelling answer is that they learn something about what it is like to experience that aspect of the world. And that is all.



Yet put together, these two ideas imply that all we can have knowledge of is sensory experience itself. We can't have knowledge of mind-independent objects. We can't even form the conception of rocks and mountains as mind-independent.

The problem of the role of sensory experience in knowledge seemed particularly nasty in the seventeenth century. The picture provided by mathematical physics seemed both compelling and quite alien to the view of the world provided by our ordinary sensory experience. For example, as Koyré remarks, on Newton's view:

Not only are the heavenly spaces empty and void, but even the so-called 'solid bodies' are full of void. The particles that compose them are by no means closely packed together, but are separated from one another by void space. The Newtonians, from Bentley on, took an enormous pride and pleasure in pointing out that 'matter' proper occupies a practically infinitesimal part of space.

(Koyré 1965, p. 14, fn. 4)

Mathematical physics gave us a firm conception of 'matter'. But it seemed to show our surroundings to be unlike anything in sensory experience. How can experience be playing a role in giving us knowledge of our surroundings, when in fact physics seems to show our surroundings to be so alien?

The trouble is that physics seems to push sensory experience inside the head. And we now have the problem of explaining how this stuff inside the head can be playing any privileged or distinctive role in generating our knowledge of the world around us. We have a conception of the 'qualitative character' of our sensory experience, the way it is for you when you see a beach ball against a blue sky, for example. If mathematical physics is the whole truth about our surroundings, then the qualitative character of our sensory experience seems to have little to do with the qualitative character of our surroundings. This is a problem, because we ordinarily think of sensory experience as the foundation of our knowledge of our surroundings. What role is there for sensory experience in providing us with knowledge of what is going on around us?

The problem is particularly obvious in the case of colour. Colour does not seem to be in the world as described by physics. How then can colour experience be playing any role in giving us knowledge of our surroundings?

Before physics, you might have thought that the qualitative character of sensory experience is actually constituted by the qualitative character of the world. When you encounter the beach ball on the beach, for example, you are having an experience that you could not have had unless the world has the qualitative character it does. The beach ball and the sky are constituents of your experience, and their qualitative characters constitute the qualitative character of your experience. That is how experience can be providing you with knowledge of your surroundings. It



does so both in providing you with propositional knowledge of how things stand around you, and, more fundamentally, by providing you with some understanding of the concepts of the various objects and properties around you. That's the natural picture. The trouble is that physics seems to undermine that picture, by showing you that the qualitative character of the world is quite unlike anything that shows up in your experience. How then can experience be playing any role in our knowledge of our surroundings?

Yet if we allow physics to push sensory experience back inside the head, then we need some proprietary vocabulary to describe the stuff inside the head. The trouble here, as we shall see, is that we have no coherent conception of sensory experience itself, as something 'internal to the head'. In the end, we have to resist the 'internalization' of sensory experience, the way physics has pushed it into the head.

But how can we resist the way in which physics pushes sensory experience inside the head? Our understanding of sensory experience could be transformed by giving due weight to the idea that reality can be described 'at many levels'. We can acknowledge that there is something fundamental about the physics of our surroundings, at least in that all other facts about our world supervene on the physical facts, while being 'pluralist' about our world, which can be described 'at many levels', and the physical is only one level of description, even if it is a particularly fundamental level of description. There are two developments that make this move particularly appealing. One is the rise of the special sciences, such as psychology, zoology, and economics, which cannot really be regarded as merely branches of physics. The other is recognition of the difficulty of achieving a reduction of conscious phenomena to physical phenomena. These points mean that many philosophers now would acknowledge that the world may be described at many 'different levels'. This opens the possibility that characterizing the qualitative world we encounter in experience, the colours and shapes, the beach ball on the sand, and so on, is simply a matter of saying how things are 'at a different level' than the level of description used by the physicist. This doesn't require that those qualities and objects should be in any way mind-dependent. The dissonance between the qualitative character of our experience and the qualitative character of the world as described by physics may then be merely an artefact of our shifting from one level of description to another. We can keep our natural understanding of the epistemic role of sensory experience, on which the qualitative character of sensory experience is constituted by the qualitative character of the things and properties around us.

In this chapter, I want to set out some of the basic models of the role of sensory experience in grasp of concepts of the objects and properties around us. This is a question about consciousness; but it is not the same as the question whether



sensory experience is itself to be reduced to, or explained in terms of, the physical. This is the traditional mind–body problem, and it is arguably secondary to the question I am concerned with, which is the epistemic role of sensory experience. Does sensory experience give us knowledge of our surroundings, or does it play no significant role in cognition? This is a question about both propositional and non-propositional knowledge. Does sensory experience play an essential role in our knowledge that things are thus and so in our surroundings? And, the more basic question, does sensory experience play an essential role in our knowledge of which things and properties there are in our surroundings? That is, does our grasp of concepts of the objects and properties around us essentially depend on sensory experience? Developing models of the relation of sensory experience to our surroundings is, as I said, arguably prior to addressing the mind–body problem. Only when we have a firm understanding of the point of our talking about these phenomena of awareness—do we invoke them to explain our knowledge of our surroundings?—will we be in a position to ask whether they can themselves be explained in terms of physical phenomena.

On one view, still popular today, the epistemic role of sensory experience has to do with the external causes and effects of its phenomenal character. The specific phenomenal characters of your various sensory experiences have no bearing on their epistemic value; all that matters is their characteristic causes and effects. As we shall see, Locke defends this kind of view for the case of our sensory experience of colour.

## 2. Locke on Ideas as Signs of Their Regular Causes

Physics drove sensory experience inside the head. Once that happened, there was a question whether sensory experience can really be providing us with knowledge at all. Locke (1690/1975) put it like this: since physics has pushed sensory experience inside the head, it could be that different people are having quite different sensory experiences in response to one and the same external environment. How then can sensory experience be giving any of us knowledge of our surroundings? One way Locke puts it is to say that if our experiences are qualitatively different, then the world out there can't resemble both your experiences and mine. So how could your experiences and my experiences both be giving us knowledge about the world out there? I'll look at his talk about 'resemblance' in the next section. But he has a more basic point.

Locke's point is that, in explaining the epistemic value of sensory awareness, one role of the sensations is to be signs of their regular causes. Here the intrinsic characters of the sensory experiences matter only as a way of differentiating sensations



that have different regular causes. So long as your perceptual sensations have the right kind of structure, and have the right pattern of regular causes, they will not be representing the world incorrectly.

Locke illustrates the point by considering the case in which one person's colour sensations have different intrinsic characters to another person's colour sensations:

Neither would it carry any Imputation of *Falsehood* to our simple *Ideas*, if by the different Structure of our Organs, it were so ordered, That *the same Object should produce in several Men's Minds different Ideas* at the same time; v.g. if the *Idea*, that a *Violet* produced in one Man's Mind by his Eyes, were the same that a *Marigold* produces in another Man's, and *vice versa*.

(*Essay*, II/xxxii/15)

That's to say: there is no representational error, no 'Imputation of *Falsehood*', for either of the people in this case in which they have different colour sensations. It would not matter for ordinary communication if there were a difference in the intrinsic characters of our sensations. For we don't, ordinarily, know the intrinsic characters of one another's sensations; so communication doesn't rely on them being the same.

For since this could never be known: because one Man's Mind could not pass into another Man's Body, to perceive, what Appearances were produced by those Organs; neither the *Ideas* hereby, nor the Names, would be at all confounded, or any *Falsehood* be in either.

(II/xxxii/15)

Moreover, the palette of colour sensations in one person's mind, despite the intrinsic difference from the colour sensations in the other person's mind, could still be responding to exactly the same pattern of regular causes:

For all Things, that had the Texture of a *Violet*, producing constantly the *Idea*, which he called *Blue*, and those which had the Texture of a *Marigold*, producing constantly the *Idea*, which he as constantly called *Yellow*, whatever those Appearances were in his Mind; he would be able as regularly to distinguish Things for his Use by those Appearances, and understand, and signify those distinctions, marked by the Names *Blue* and *Yellow*, as if the Appearances, or *Ideas* in his Mind, received from those two Flowers, were exactly the same, with the *Ideas* in other Men's Minds.

(II/xxxii/15)

This gives us one basic style of explanation of the epistemic value of sensory awareness. Different types of perceptual sensation have different characteristic causes, and the sensations can therefore function as signs of their regular causes. Sensory awareness—in this analysis, 'sensation'—is coming in only as that which has regular causes in the environment.



As we shall see, this is not all Locke has to say about the epistemic role of sensory awareness. But this is a striking line of thought. It certainly does seem it would be valuable to an organism to have structures that are reliable signs of the presence of their regular causes. However, it now seems obvious that this role does not have to be played by sensations, or as Locke here calls them, 'Ideas'. On the face of it, exactly the same role could be played by patterns of, for example, neural activity. Patterns of neural activity, conscious or not, could represent the world by being systematically responsive to the operation of their regular causes in our environment. So no distinctive epistemic role has been found for consciousness; we could, on this picture, have just the same knowledge of the world without consciousness as we do with consciousness. The fact that we are dealing specifically with *sensations* has been given no significant work to do; all that is being exploited about sensations is the fact that they stand in distinctive causal relations to external phenomena in the environment. But of course, it is not unique to sensations that they stand in such causal relationships to phenomena in the environment.

You might object: sensations are elements in the subjective life of the perceiver, in a way that mere neural assemblies, perhaps remote from consciousness, are not. So maybe the fact that it is sensations we are dealing with is important after all. You might say that sensations bring the external phenomenon into the subjective life of the perceiver in a way that a mere neural assembly could not. Now this is an important objection. If there is a role for sensory experience in our knowledge of the world, it must have something to do with the idea that experience does 'bring the world into' the subjective life of the perceiver.

The difficulty with the objection is this. Sensations themselves are certainly 'in the subjective life' of the thinker. But the mere fact that the sensation stands in a causal relation to external phenomena does not of itself mean that those external phenomena have been 'brought into the subjective life of' the perceiver. The trouble is that though the sensation is, as it were, inertly there in the subjective life of the perceiver, it is doing nothing to explain how the external world is being brought into the subjective life of the perceiver. The sensation stands in causal relations to the external phenomena. So far we do not know why this brings those external phenomena into the subjective life of the perceiver in a way that could not be done by mere neural assemblies. Doubtless the intrinsic characteristics of the sensation are available to the perceiver. But the causal relations of the sensation to aspects of the environment are not themselves intrinsic characteristics of the sensation. There's no presumption that they are available to the subject.

Now you might supplement Locke's account. You might say: it's not just that external objects or properties cause the sensation. The sensation also connects to other thoughts and desires. Maybe you could say, well, the sensation causes the



subject to think, 'That's a bank where the wild thyme blows,' for example. You could appeal, more generally, to causal relations between the sensation and other aspects of the subject's mental life: the perceiver's beliefs, for example. Although you could do this, though, you could also do it for a mere neural assembly. You could characterize a neural assembly that is caused by external aspects of the world just as the sensation is, and you could characterize causal relations between that neural assembly and the perceiver's beliefs, for example. Nothing in this would exploit the idea that the neural assembly, or the processes in which it plays a role, are conscious. So the fact that Locke's account appeals to sensations as being the items that stand in the right kinds of causal relations to the external world and to the rest of the subject's mental life is not really explaining what role sensory awareness plays in providing us with knowledge of our surroundings. It leaves it seeming that we could have exactly the same knowledge of our surroundings without having sensory experience.

The root problem in Locke's account so far is that the thing that makes the sensation conscious is doing no work in the account of how the sensation makes it possible for us to think about the world. The sensation is conscious. But that fact about the sensation seems to explain only how we could have knowledge of the sensation itself. What is giving the sensation of colour its epistemic role, on Locke's account, is not 'that which makes it conscious', but its causal relation to the surroundings. It is truly difficult to see how an approach to sensory experience in terms of sensations can do anything to explain how sensory experience makes it possible for us to think about our surroundings. This is one basis of Berkeley's Puzzle. We may indeed feel driven to think of sensory experience in terms of sensations. The trouble is that it is difficult to see how the mere having of sensation as such could provide one with knowledge of anything more than what it is like to have those very sensations. This means that when we try to acknowledge a foundational epistemic role for experience, we will find that all we can ever think about are sensations.

Another example may help to make this point vivid. We already considered Locke's idea that spectrum inversion would make no difference to your ability to think about the colours of objects. However, by Locke's own argument it now looks as though a complete absence of colour sensations would make no difference to your ability to think about the colours of objects. Consider someone born colour-blind. This person has a reliable way to find out about the colours of the objects around them: ask. Why isn't that enough for an ability to think about the colours of objects? You might argue that, well, this person is after all dependent on other people. So perhaps it is only by courtesy of other people that this person can be said to grasp anything to do with colour. So suppose we have someone who has brain circuitry that can determine the colours of objects, but that this happens in a



way that is remote from their sensory experience. So, for example, if this person is simply asked to say what colour the object before her is, she naturally replies that she can't do that, she experiences everything in (let us suppose) black and white. However, suppose we ask her to guess, and she does. We may find that she is quite reliable at forced-choice guessing as to the colours of objects in front of her. There is no special puzzle about this; all that is happening is that these verbal reports are being sustained by neural processing that is determining the colours of objects without sustaining sensory experience of the colours of objects. But does this subject know what the colours are? By Locke's argument, there is no confusion in this person's communications with other people. And she has neural states that are reliable signs of the presence of the various colours. Still it seems evident that this subject does not know what the colour words mean, any more than did the person who was born completely colour-blind (that is, without even the circuitry, remote from consciousness, that allowed accurate verbal reports of colour). If that is right, then we have not articulated the role of sensory awareness in our knowledge of the world by saying that it is a matter of sensations being signs of their regular causes. Sensory experience does seem to play an essential role in our knowledge of our surroundings, and if Locke's account were to stop here he would not have acknowledged the force of that idea.

### 3. Locke on Resemblance

There is, famously, another dimension to Locke's discussion of the epistemic role of experience. He says that some of our sensory experiences are 'Resemblances' of the external physical properties, and some are not:

[T]he *Ideas of primary Qualities* of Bodies, 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 of them at all.

(*Essay*, II/viii/15)

By 'primary qualities of Bodies', Locke means shape, size, motion or rest, number, and weight: the properties that he takes to be basic to mechanical explanations of the physical behaviour of objects. By 'Ideas, produced in us by these Secondary Qualities', he means the ideas of colour, smell, taste, and so on produced in us by properties of the external objects.

When Locke says that the ideas of primary qualities resemble those properties, he is making an epistemic point. The ideas of primary qualities give a kind of knowledge of properties of external objects that ideas of secondary qualities do not.



Here it really is specifically experience that is being given epistemic work to do, work that could not have been done without experience. The natural ideas that Locke is working with are something like this:

- (a) What is distinctive of sensory consciousness, as opposed to perceptual cognition in general, is the having of sensations, not just perceptual representations (in the sense of: things that are reliable signs of their usual causes), therefore:
- (b) If sensory awareness as such can provide you with knowledge of the nature of your surroundings, it must be in virtue of some characteristic of the sensations themselves, not just the representational content (in that causal sense) that perception has.

The upshot of this is that in trying to characterize the epistemic role of sensory experience, Locke is forced to work with the idea that there is something about the intrinsic characteristics of perceptual sensations in virtue of which they yield knowledge of the objects and properties around you.

Of course, you might say that this cannot be right, that it is only the representational characteristics of experience that generate knowledge of our surroundings. But then, since any representational characteristic that an experience has could equally well be there in the absence of consciousness, you will have to abandon the idea that there is any distinctive epistemic role for consciousness. Experiences can be natural signs of external situations, but non-conscious states can also be natural signs of external situations.

However, the view that Locke is driven to, in trying to find the epistemic role of experience, has usually struck commentators as incredible. While I don't, in the end, think the view is correct, it seems to me an important position. I think that feeling the pull of Locke's view is the best way of getting a sense of the radical thinking that is required if we are to find an alternative account of the epistemic value of sensory experience.

The doctrine is that our ideas of primary qualities themselves, considered severally, do each resemble the primary qualities of external objects. Sensory experience has been driven inside the head; but the sensory experiences themselves literally do have characteristics like shape or colour. As he puts it, 'A Circle or Square are the same, whether in *Idea* or Existence' (II/viii/18). An idea can be circular or square; an external object can be circular or square. So from having a circular or square idea, you may derive knowledge of what a circular or square external thing is.

Although your sensory experience can have colour characteristics, just as it can have shape characteristics, however, there is, unlike the case of shape and so on, nothing resembling those characteristics of the experiences in the objects



themselves. The blueness of the idea is not to be found in the object itself; all we find in the object itself is 'Bulk, Figure and Motion of the insensible Parts' (II/viii/15). In the case of shape, having the sensory experience can provide you with knowledge of a characteristic of external objects; in the case of colour, having the experience does not provide you with a similar foundation for knowledge of a property of external objects. Blueness is not the same in idea as in existence.

One way to see the appeal of his picture is to consider a simple puzzle about phosphenes. Phosphenes are visual experiences that are not caused by light entering the eye. One familiar case is when you shut your eyes, press a finger gently against your eye and 'see stars'. The visual experience can be caused by pressure rather than light. These experiences are not necessarily projected onto external reality, as in the cases of full-blown hallucinations. More control over the content of the phosphenes is provided by electrical stimulation of the visual cortex, though the results as yet still tend to be somewhat indefinite. Now, suppose that your visual cortex has been stimulated, and you are having what you report as a bright yellow square phosphene, moving from left to right. Is there really something there that is yellow, square, and moving? Here are two answers:

- (1) It's just a denial of reality to say there is nothing there that is yellow, square, and moving. That is the only vocabulary we have to describe what the subject is experiencing. And it's not as if this is an extended or metaphorical use of our ordinary talk about colours, shapes, and movement: you are not talking figuratively when you say that the thing is a vibrant yellow.
- (2) It's crazy to say there is something there that is literally yellow, square, and moving. We can search all of space and time and there is nowhere to be found anything literally occupying space that has these characteristics, or at any rate, nothing relevant. There is nothing that is yellow, square, and moving.

Both reactions are powerful. In the case of colour terms as applied to ordinary concrete objects, there is a certain complexity in the way we use them. For example, a red pepper painted green isn't a green pepper; it's a red pepper painted green. Nothing parallel seems to apply to phosphenes. But we also speak of film colours, or the colours of flames, where we don't get this complexity, or not in the same way. If 'yellow' applies to both bananas and flames, can't it also apply to phosphenes? Similarly for 'square' and 'moving', which apply, quite literally, to both concrete objects, in which case they have causal significance, and to geometrical patterns, e.g. on a computer screen.

Although the puzzle itself is very simple to state, it is important to realize that contemporary philosophical discussion has no compelling resolution of it. One



school of thought would say that in the case of the phosphene, you are representing the presence of something yellow. But you could represent the presence of something yellow without there being anything yellow about your experience. For example, a piece of text can represent the yellowness of a banana without itself being yellow. What we need to characterize is the difference between merely representing the presence of something yellow, which you could do in a newspaper report, and the presence of the yellow phosphene itself. I have heard it said that ‘in ordinary colour vision, you think about the colours, *in colour*’. This does vividly express the sense that there is something quite special about the way in which visual experience represents colours; but of course it requires that the visual experience itself should literally be coloured. Somewhat similarly, people sometimes say that vision does not represent the colours; it *presents* them. But if you ask what is the intuitive idea that people are trying to express with this formulation, it seems evident that nothing short of the experience itself being literally coloured will do. Similar points, of course, apply to the idea that the phosphene is merely representing the presence of something square and moving. We have to acknowledge the force of the idea that the phosphene itself is, literally, square and moving.

The only other resource we find in contemporary philosophical discussion is the idea that there are ‘visual sensations’ or ‘mental paint’ that have to be characterized using some technical vocabulary other than the terms that we use to characterize properties of external objects. The suggestion is that there is a kind of ‘mental paint’ that is used in experience to depict one’s surroundings, just as regular paint can be used to depict a forest scene. And just as regular paint has certain intrinsic characteristics, so too mental paint has intrinsic characteristics. Whatever the intrinsic characteristics of mental paint are, however, proponents of this kind of idea usually emphasize that they do not include characteristics such as being yellow, square, or moving. To take a recent example, Ned Block writes: ‘To avoid misunderstanding: I do not claim that there is anything red or round in the head when one veridically sees a red or round thing in the world as when red pigment in a painting represents a red barn’ (Block 2010, p. 56, footnote 2). For this reason, mental paint theory simply does not address the puzzle about the phosphene. To be told that the phosphene has characteristics  $x_{13}$ ,  $y_{44}$ , and  $z_{103}$  (or whatever technical terms one introduces to describe the intrinsic characteristics of mental paint) does nothing to explain the sense in which it is literally correct to say that the thing is yellow, square, and moving.

You might say that the phosphene isn’t really yellow; it only *looks* yellow. The trouble here is to understand why you would use such a cautious formulation. There the thing is, manifestly, vibrantly, unmistakably yellow. Might it after all be purple, or plaid? If not, then what is the point of saying that it ‘looks yellow’? There



isn't any suggestion that it might really be some other colour. The way we handle this situation in ordinary English is, I think, to use the ordinary vocabulary of colour, shape, and movement, but to say that there isn't anything 'out there' that has those characteristics, there isn't anything 'really' there. The thing is literally yellow, square, and moving, and though it isn't a something, it isn't a nothing either. I do not think that this is a finally satisfactory analysis of the puzzle about phosphenes, but as I said, I do not think that philosophy has, at the moment, anything better to offer.

This puzzle becomes more than a special problem about phosphenes when we reflect on the significance of allowing physics to push experience inside the head. It now appears that in ordinary vision, we have to allow that the visual experiences themselves are literally yellow, shaped, or moving. Nothing less will do justice to the 'special' character of visual 'representation', and talk about an arcane realm of 'mental paint' won't do it either. If we hadn't allowed physics to push visual experience inside the head, of course, we could have acknowledged that in ordinary visual perception, the only yellow, square, moving objects are those outside the head.

For Locke, however, the ideas involved in ordinary vision are 'inside the head', and once you have reached that point, the only way you have of doing justice to the character of visual experience is to acknowledge that the ideas themselves are, for example, literally yellow, square, and moving. Now the question arises, does anything outside the head have the characteristics that those visual experiences do? And as we have seen, Locke's answer is that the external objects don't literally have the very same properties of colour that the experiences do (there is only 'Bulk, Figure and Motion of the insensible Parts') but the external objects do literally have the same properties of shape and motion that the visual experiences do. Consequently, your experiences of shape and movement are giving you a kind of knowledge of the properties of external objects that is not being provided by your experiences of colour.

Notice that this analysis of the epistemic role of experience really does apply specifically to consciousness. It is the phenomenal character of your perceptual experience that is said to resemble the primary qualities around you. Experience provides you first with the character of your phenomenal experience itself, and that provides knowledge of the primary qualities because the ideas of the primary qualities are resemblances of them. There is no suggestion that anything non-experiential in perception could play such a role. So here we do have an attempt to explain the epistemic value specifically of sensory experience. Of course, resemblance could, in principle, hold between structures in the brain, remote from consciousness, and external properties. It could happen that representation of external shapes was achieved by the production of similar shapes in



the brain. But merely to have one's brain be in a certain configuration, remote from consciousness, would not of itself mean that one had any grasp of what it is to be in that configuration, even if there is a resemblance between configurations in the brain and configurations in the distal world. In contrast, Locke's picture is that once you have the sensory experience, the resemblance of aspects of the external world to that experience means that from the experience you can find out what those aspects of the world are like.

What causes a lot of difficulty in understanding Locke's text here is that it is often supposed that if the talk of 'resemblance' is to make any sense at all, it must be as a kind of representation. To say that the idea resembles a quality of objects must be a matter of saying that the idea represents that quality, perhaps in some special way. But Locke is not talking about representation here. As we saw, in his discussion of experience of colour, Locke is operating with a perfectly good sense in which experiences of colour can be said to represent the world correctly: sensations of colour are representations of particular microphysical properties in the world around us, those which are the regular causes of those experiences of colour. And those representations are in general correct, even if your and my sensations are intrinsically quite unlike one another. There is no 'Imputation of *Falsehood*' if our colour experiences are intrinsically quite different to, and do not resemble, the textures they stand for. His point here is that further to the talk of 'representation', further to the talk of 'what the Ideas signify', there is another, more fundamental kind of knowledge of the world that sensory experience can give us, in the context of experience of shape but not in the context of experience of colour. In sensory experience of shape, we first have the qualitative character of the sensory experience itself; but our encounter with the sensory experience allows us to go further and find out something about the nature of the quality of shape itself, since that quality resembles the experience.

Notice that the kind of knowledge we are gaining here is not knowledge of the truth of propositions. Really, the story about which representational contents are true can in principle, on Locke's terms, all be told without making reference to any phenomena specifically of consciousness. Ideas are signs of their regular causes; and the story of how the representational system works here does not, as we have already seen, make any indispensable reference to experience. What is doing the work, in the account of representational content, is the fact that something or other is a sign of its regular cause; it does not really matter that it is ideas that, for us, function as signs of their regular causes. What resemblance provides, however, is a kind of knowledge that is not a matter of knowing the truth of propositions, and is a phenomenon specifically of consciousness. When we recognize that the experience of squareness is a resemblance of the property of squareness, we acquire a non-propositional knowledge of



what the property of squareness itself is like, knowledge that goes beyond knowledge of the truth of propositions, and is a phenomenon specifically of consciousness; only the *experience* of squareness could resemble squareness in that way. Locke could have got the effect he wants in a quite different way. He could have argued that the qualitative character of our experiences of primary qualities is actually constituted by the primary qualities of the objects themselves that we encounter. This would have saved him from Berkeley's challenge.

#### 4. Berkeley on the Sensory Basis of Concept Formation

Berkeley, like Locke, takes it that the knowledge provided by sensory experience is the foundation of all our knowledge of the world. As we saw, this idea can seem absolutely compelling; ordinary common sense today still finds it compelling that there is a fundamental role for sensory experience in knowledge. As we have seen, moreover, in trying to understand how this can be so, we seem obliged to go beyond thinking of sensory experience in representational terms, for any representational content that sensory experience has could also be had by perception in the absence of sensory experience. So that seems to drive us to try to understand the epistemic role of sensory experience in terms of its non-representational characteristics, which presumably means thinking of sensory experience as a matter of having sensations. But how could sensations provide us with knowledge of our surroundings? At this point, we seem driven to Locke's answer: this happens in virtue of a resemblance between the sensations and characteristics of our surroundings. What else could it be?

Berkeley's first point is that there is no resemblance of the kind Locke needs between our sensations and material objects. 'Resemblance' in this sense is a matter of literally sharing properties. Locke's picture is that the F-ness of your idea is what provides you with your knowledge of what it is for a material object to be F (cf. Jacovides 1999). Berkeley's point is that there are no properties, no replacements for 'F', that are literally shared by ideas and external objects.

But say you, though the ideas themselves do not exist without the mind, yet there may be things like them whereof they are copies or resemblances, which things exist without the mind, in an unthinking substance. I answer, an idea can be like nothing but another idea; a colour or figure can be like nothing but another colour or figure.

(Berkeley 1734/975, §8)

It is instructive to think through what happens if this point is resisted, because it then becomes evident that there is a deeper criticism implicit in Berkeley's